Herefordshire Council

Agenda

Connected Communities Scrutiny Committee

Date: **Monday 20 July 2026**

Time: **10.00 am**

Place: **Conference Room 1 - Herefordshire Council, Plough Lane Offices, Hereford, HR4 0LE**

Notes: Please note the time, date and venue of the meeting.

For any further information please contact:

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If you would like help to understand this document, or would like it in another format, please call Henry Merricks-Murgatroyd, Democratic Services Officer on 01432 260239 or e-mail Henry.Merricks-Murgatroyd@herefordshire.gov.uk in advance of the meeting.

Agenda for the meeting of the Connected Communities Scrutiny Committee

Membership

Chairperson	**Councillor Ed O'Driscoll**
Vice-chairperson	**Councillor Frank Cornthwaite**
	Councillor Bruce Baker
	Councillor Helen Heathfield
	Councillor Rob Owens
	Councillor Roger Phillips
	Councillor Diana Toynbee

Agenda

Pages

1. APOLOGIES FOR ABSENCE

To receive apologies for absence.

2. NAMED SUBSTITUTES

To receive details of any councillor nominated to attend the meeting in place of a member of the committee.

3. DECLARATIONS OF INTEREST

To receive declarations of interest in respect of items on the agenda.

4. MINUTES 13 - 20

To receive the minutes of the meeting held on Tuesday 7 July 2026.

HOW TO SUBMIT QUESTIONS

The deadline for the submission of questions for this meeting is 5.00 pm on Tuesday 14 July 2026.

Questions can be submitted via the Online questions portal Further information and guidance is available at Get involved - Herefordshire Council

Accepted questions and the response to them will be published as a supplement to the agenda papers prior to the meeting.

Full details about asking questions and the deadlines at public meetings can be found here: constitution of the council.

Guidance for questions being submitted for scrutiny can be found here

5. QUESTIONS FROM MEMBERS OF THE PUBLIC

To receive any written questions from members of the public.

6. QUESTIONS FROM MEMBERS OF THE COUNCIL

To receive any written questions from members of the council.

7. HEREFORD BYPASS PHASE ONE – FULL BUSINESS CASE 21 - 636

To provide committee members with the full business case for Hereford Western Bypass Phase One, along with the assessment criteria that will be used alongside the full business case by Cabinet to determine whether to proceed with the project.

8. PUBLIC PARTICIPATION IN PLANNING TASK AND FINISH GROUP

To receive a verbal update from the Chairperson of the Public participation in planning task and finish group.

9. WORK PROGRAMME 2026-7 637 - 702

To consider the draft work programme for Herefordshire Council's scrutiny

committees.

10. DATE OF THE NEXT MEETING

The date of the next meeting is Tuesday 22 September 2026, 10:00 am.

The public's rights to information and attendance at meetings

You have a right to:

- Attend all council, cabinet, committee and sub-committee meetings unless the business to be transacted would disclose 'confidential' or 'exempt' information.
- Inspect agenda and public reports at least five clear days before the date of the meeting. Agenda and reports (relating to items to be considered in public) are available at www.herefordshire.gov.uk/meetings
- Inspect minutes of the council and all committees and sub-committees and written statements of decisions taken by the cabinet or individual cabinet members for up to six years following a meeting.
- Inspect background papers used in the preparation of public reports for a period of up to four years from the date of the meeting (a list of the background papers to a report is given at the end of each report). A background paper is a document on which the officer has relied in writing the report and which otherwise is not available to the public.
- Access to a public register stating the names, addresses and wards of all councillors with details of the membership of cabinet and of all committees and sub-committees. Information about councillors is available at www.herefordshire.gov.uk/councillors
- Have access to a list specifying those powers on which the council have delegated decision making to their officers identifying the officers concerned by title. The council's constitution is available at www.herefordshire.gov.uk/constitution
- Access to this summary of your rights as members of the public to attend meetings of the council, cabinet, committees and sub-committees and to inspect documents.

Recording of meetings

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Members of the public are advised that if you do not wish to be filmed or photographed you should let the governance support team know before the meeting starts so that anyone who intends filming or photographing the meeting can be made aware.

The reporting of meetings is subject to the law and it is the responsibility of those doing the reporting to ensure that they comply.

The council may make a recording of this public meeting or stream it live to the council's website. Such videos are made available for members of the public via the council's YouTube channel at www.youtube.com/@HerefordshireCouncil/streams

Public transport links

The Herefordshire Council office at Plough Lane is located off Whitecross Road in Hereford, approximately 1 kilometre from the City Bus Station.

Bus maps are available here: www.herefordshire.gov.uk/downloads/download/78/bus_maps

Herefordshire Council

The seven principles of public life

(Nolan Principles)

1. Selflessness

Holders of public office should act solely in terms of the public interest.

2. Integrity

Holders of public office must avoid placing themselves under any obligation to people or organisations that might try inappropriately to influence them in their work. They should not act or take decisions in order to gain financial or other material benefits for themselves, their family, or their friends. They must declare and resolve any interests and relationships.

3. Objectivity

Holders of public office must act and take decisions impartially, fairly and on merit, using the best evidence and without discrimination or bias.

4. Accountability

Holders of public office are accountable to the public for their decisions and actions and must submit themselves to the scrutiny necessary to ensure this.

5. Openness

Holders of public office should act and take decisions in an open and transparent manner. Information should not be withheld from the public unless there are clear and lawful reasons for so doing.

6. Honesty

Holders of public office should be truthful.

7. Leadership

Holders of public office should exhibit these principles in their own behaviour and treat others with respect. They should actively promote and robustly support the principles and challenge poor behaviour wherever it occurs.

Herefordshire Council

Guide to Connected Communities Scrutiny Committee

Scrutiny is a statutory role fulfilled by councillors who are not members of the cabinet.

The role of the scrutiny committees is to help develop policy, to carry out reviews of council and other local services, and to hold decision makers to account for their actions and decisions.

Council has decided that there will be five scrutiny committees. The committees reflect the balance of political groups on the council.

The Connected Communities Scrutiny Committee consists of 7 councillors.

Councillor	Party
Bruce Baker	Conservative Party
Frank Cornthwaite (Vice-Chairperson)	Conservative Party
Helen Heathfield	The Green Party
Ed O'Driscoll (Chairperson)	Liberal Democrats
Rob Owens	Liberal Democrats
Roger Phillips	Conservative Party
Diana Toynbee	Independents for Herefordshire

Scrutiny functions

The committees have the power:

(a) to review, influence policy or scrutinise decisions made, or other action taken, in connection with the discharge of any functions which are the responsibility of the executive,

(b) to make reports or recommendations to the authority or the executive with respect to the discharge of any functions which are the responsibility of the executive,

(c) to review or scrutinise decisions made, or other action taken, in connection with the discharge of any functions which are not the responsibility of the executive,

(d) to make reports or recommendations to council or the cabinet with respect to the discharge of any functions which are not the responsibility of the executive,

(e) to make reports or recommendations to council or the cabinet on matters which affect the authority's area or the inhabitants of that area

(f) to review or scrutinise decisions made, or other action taken, in connection with the discharge by the responsible authorities of their crime and disorder functions and to make reports or recommendations to the council with respect to the discharge of those functions. In this regard crime and disorder functions means:

(i) a strategy for the reduction of crime and disorder in the area (including anti-social and other behaviour adversely affecting the local environment); and

(ii) a strategy for combatting the misuse of drugs, alcohol and other substances in the area; and

(iii) a strategy for the reduction of re-offending in the area

(g) to review and scrutinise any matter relating to the planning, provision and operation of the health service in its area and make reports and recommendations to a responsible person on any matter it has reviewed or scrutinised or to be consulted by a relevant NHS body or health service provider in accordance with the Regulations (2013/218) as amended. In this regard *health service* includes services designed to secure improvement -

(i) in the physical and mental health of the people of England, and

(ii) in the prevention, diagnosis and treatment of physical and mental illness

(iii) and any services provided in pursuance of arrangements under section 75 in relation to the exercise of health-related functions of a local authority.

(h) to review and scrutinise the exercise by risk management authorities of flood risk management functions or coastal erosion risk management functions which may affect the local authority's area.

(i) To track actions and undertake an annual effectiveness review

The remit of Connected Communities Scrutiny Committee

- Talk Business programme, advice and support
- Development investment plans - town, market town, rural, Hereford City
- Hereford Enterprise Zone
- Higher education development
- Adult and community learning programme
- Apprenticeships
- Fastershire programme
- Digital connectivity
- Heritage, culture and tourism
- Social value procurement policy
- Planning
- Licensing
- Regulatory
- Capital highway maintenance, asset management and infrastructure repair
- Council housing
- Statutory community safety and policing scrutiny powers

Who attends scrutiny committee meetings?

- Members of the committee, including the chairperson and vice-chairperson.
- Cabinet members, they are not members of the committee but attend principally to answer any questions the committee may have and inform the debate.
- Officers of the council to present reports and give technical advice to the committee.
- People external to the council invited to provide information to the committee.
- Other councillors can attend but can only speak at the discretion of the chairperson.

Herefordshire Council

Minutes of the meeting of the Connected Communities Scrutiny Committee held in Conference Room 1 - Herefordshire Council, Plough Lane Offices, Hereford, HR4 0LE on Tuesday 7 July 2026 at 2.00 pm

Committee members present in person and voting:	**Councillors: Bruce Baker, Ed O'Driscoll (Chairperson), Rob Owens, Justine Peberdy, Richard Thomas and Diana Toynbee**

Others in attendance:

A Campbell	Interim Service Director – Strategic Communications	Herefordshire Council
R Allonby	Service Director Economy and Growth	Herefordshire Council
J Bush		Sargeants Brothers Limited
A Clarke		Newport Transport
Councillor F Cornthwaite	Vice-Chairperson of Connected Communities Scrutiny Committee	Herefordshire Council
Councillor B Durkin	Cabinet Member Roads and Regulatory Services	Herefordshire Council
J Hobbs	Corporate Director Economy and Environment	Herefordshire Council
H Merricks-Murgatroyd	Democratic Services Officer	Herefordshire Council
J Preece	Democratic Services Officer	Herefordshire Council
Councillor P Price	Cabinet Member Transport and Infrastructure	Herefordshire Council
Councillor E Swinglehurst	Cabinet Member Culture and Environment; Deputy Leader of the Council	Herefordshire Council
S Tompkins	Delivery Director - Infrastructure	Herefordshire Council
D Webb	Statutory Scrutiny Officer	Herefordshire Council

1. APOLOGIES FOR ABSENCE

Apologies for absence were received from Cllr Roger Phillips and Cllr Helen Heathfield.

2. NAMED SUBSTITUTES

Cllr Richard Thomas was present as the named substitute for Cllr Roger Phillips. Cllr Justine Peberdy was present as the named substitute for Cllr Helen Heathfield.

3. DECLARATIONS OF INTEREST

No declarations of interest were made.

4. MINUTES

The minutes of the previous meeting were received.

Resolved: That the minutes of the meeting held on 15 April 2026 be confirmed as a correct record.

5. QUESTIONS FROM MEMBERS OF THE PUBLIC (Pages 9 - 12)

Documents containing questions received from members of the public and the responses given, plus supplementary questions and their respective responses were published as an appendix to the minutes.

6. QUESTIONS FROM MEMBERS OF THE COUNCIL

No questions had been received from councillors.

7. YEAR OF DELIVERY - CAPITAL PROJECTS

The committee considered a report on the Year of Delivery - Capital Projects item.

The Chairperson introduced the item and explained that it provided updates on key capital projects being undertaken in 2026.

The principal points of the subsequent discussion are summarised below:

A. Hereford Western Bypass Phase One

A.1 In relation to Hereford Western Bypass Phase 1, the Chairperson noted that the committee would be scrutinising the full business case at a separate meeting later this month. It was therefore considered unnecessary to spend significant time on the bypass at this meeting, although some points of clarification were sought.

A.2 In response to a question from a committee member, officers confirmed that the full business case assessed phase one of the scheme as a standalone project.

A.3 A committee member questioned why the project was shown with a green RAG rating given the scale of the identified risks, including matters relating to cost, planning and affordability. In response, officers explained that the rating reflected continuing progress on the scheme and the existence of mitigation measures which were reported regularly to Cabinet.

B. Hereford Transport Hub

B.1 The committee then moved to consider the Hereford Transport Hub project. The Delivery Director – Infrastructure reported that the scheme was nearing completion, with opening expected in October 2026, and that construction had progressed well overall.

B.2 It was reported that the waiting area works had been completed and that public realm works were progressing well. It was explained that one design issue affecting the tie-in with the highway had caused delay during construction, but that some of this delay had been recovered and the project was forecast to complete under budget.

B.3 The Chairperson welcomed representatives of bus operators to the meeting in order to assist the committee in understanding operational issues associated with the new hub design. It was commented positively on the integration of bus, rail and

pedestrian access and on the quality of engagement by council officers, while also identifying continuing operational concerns.

B.4 The principal concern raised by operators related to the drive-in, reverse-out layout, which they considered carried safety and operational risks, particularly in a constrained space and during busy periods. Concerns were also raised about congestion, visibility in poor weather and darkness, the interaction between buses and other vehicles, and the possibility of conflict with pedestrians or cyclists despite mitigation measures.

B.5 It was advised that some issues relating to layover arrangements had been addressed and welcomed discussion around enforcement and possible additional facilities for drivers. It was also stated that operators would undertake their own risk assessments once the hub became operational and would provide feedback to the council on any further adjustments required.

B.6 In response to questions about the choice of layout, the Delivery Director - Infrastructure explained that a drive-in, drive-out arrangement had been explored but had not been considered possible through road safety audit. It was stated that the adopted design was intended to keep pedestrians out of the bus operating area and that some late changes had still been made, including adjustment to a kerb line to improve reversing movements, provision of an additional real-time passenger information board, and exploration of additional driver facilities.

B.7 During discussion of vehicle safety equipment, it was explained that reversing cameras were not a legal requirement and that older buses may rely primarily on mirrors and a reversing horn. Operators nevertheless emphasised that, while many newer vehicles had cameras, safe operation would still depend heavily on driver skill and site conditions.

B.8 A committee member asked whether the absence of electric vehicle charging points at the hub could affect future funding opportunities. The Delivery Director - Infrastructure explained that EV charging had not formed part of the original scheme because buses would not dwell long enough to charge and because there was insufficient grid capacity in that part of the city, but it was added that this would need to be kept under review in future.

B.9 During the discussion, it was suggested that the introduction of the new hub may require marshalling or similar operational support during the early period of use in order to reduce the risk of accidents and help users adapt to the layout.

C. Ross Enterprise Park

C.1 The committee then considered Ross Enterprise Park. The Service Director Economy and Growth reported that works were underway on site to open up the first phase of development, including junction works, access infrastructure and flood alleviation measures, with development-ready plots to be created for onward sale.

C.2 It was noted that business interest in the first phase was strong, with more interested parties than plots currently available, and that discussions were ongoing with a number of potential occupiers. It was advised that this level of interest had led to work being undertaken on the possible acceleration of the second phase of development.

C.3 It was explained that the second phase would involve further development land and that work was underway on a capital programme request to enable this to come forward through the next budget-setting process. It was noted that the intention was

to consider whether receipts from the first phase could be reinvested to unlock the second phase.

C.4 In response to a question about plot size and selection of occupiers, it was stated that the site could be subdivided and that decisions would be guided by the county's economic strategy and by criteria focused on growth sectors, employment quality and salary levels. It was explained that the Herefordshire Business Growth Board would be consulted as part of the selection process.

C.5 A committee member questioned whether the scheme gave sufficient opportunity for smaller local businesses to expand. In response, the Service Director Economy and Growth explained that the scheme was intended not only to support growth but also to target higher-value sectors and improve productivity and wage levels in the county, although the possibility of smaller units and workshop or incubation space remained under consideration.

C.6 Concern was raised that some local residents had not been receiving timely updates on the project. This was acknowledged and it was confirmed that a further letter was being prepared to update residents, including on issues raised locally.

D. Hereford Museum and Art Gallery

D.1 The committee then moved to the Hereford Museum and Art Gallery project, which was identified as one of the red RAG-rated projects in the report. The Service Director Economy and Growth explained that the scheme was intended to create a renewed museum and gallery offer in the city centre and to support wider regeneration and cultural objectives.

D.2 It was explained that the original scheme had included an additional top floor with a café and viewing area, but that detailed cost work had identified a much larger funding gap than had previously been understood. It was stated that earlier estimates had significantly understated the scale of the cost pressure and that the council was engaging with those who had previously advised on the project. It was further explained that phasing of certain elements was now being considered, including some smaller rooms and a lift in the lobby area.

D.3 In response to a question about the Stronger Towns funding, the Service Director Economy and Growth explained that the funding was contractually committed and linked to specified outputs, including visitor numbers and education outcomes. It was stated that the revised scheme was still expected to meet those outputs and that the funding was required to be spent by the end of March 2028.

D.4 Concern was raised about communications relating to the project, including the timing of public updates after the funding gap had been identified. A committee member argued that more open communication would help protect public confidence and support future funding bids.

D.5 In response, the Service Director Economy and Growth explained that they had chosen not to publicise the problem immediately when first identified because work was ongoing with current funders to develop a credible way forward. It was stated that the intention had been to communicate once a workable solution had been identified rather than create avoidable alarm.

D.6 During discussion of the cost escalation, it was questioned how such a significant increase could have arisen. The Chairperson also questioned whether budgets were subject to regular review, given that other projects were also increasing in cost. In response, the Corporate Director Economy and Environment

acknowledged the seriousness of the issue, while noting that the increases had occurred in significant steps rather than gradually, and referred to wider inflationary pressures, including the conflict in Ukraine, affecting construction costs.

D.7 In response to a question about the consequences of an unsuccessful Arts Council bid, the Service Director and Economy and Growth stated that other grant opportunities were also being explored. It was reported that the remaining funding gap is around £3.5 million and that redesign work was continuing so that time would not be lost while funding solutions were explored.

D.8 In response to a question about equality impacts and accessibility, it was stated that an equality impact assessment would form part of the redesign process. It was confirmed that lift access would still be provided throughout the building, and that accessibility to all floors would remain part of the intention.

D.9 In relation to governance, it was noted that the relevant service teams had been engaged in the projects and that recruitment to replace the outgoing project lead was underway.

D.10 The Cabinet Member Culture and Environment emphasised that, although the loss of some features was regrettable, the key priority was to secure the core museum and art gallery outcome and the long-term future of the building.

E. Shirehall

E.1 The committee then considered Shirehall. The Corporate Director Economy and Environment explained that, following review of construction costs, they had sought to develop a scheme based on what could realistically be delivered within budget rather than continue with a design-led approach that had become unaffordable.

E.2 It was reported that revised work indicated that the building could be stabilised and made watertight, structurally sound, serviceable and compliant for around £8 million.

E.3 The Corporate Director Economy and Environment explained that the assembly room's size and configuration had driven exceptional construction costs, particularly because of the need for heating, ventilation and air conditioning works at roof level. As a result, alternative library arrangements in courtroom two and associated rooms were now being explored, while retaining the assembly room as a large flexible civic and cultural space.

E.4 It was noted that external cultural partners had expressed enthusiasm about the possible use of the assembly room and other large spaces for activities that existing venues could not always accommodate.

E.5 The Chairperson referred to earlier scrutiny of the decision to move the library from Maylord Orchards to Shirehall and recalled previous committee concerns that the Shirehall costings had been desk-based and that Maylord Orchards should be retained as a fallback option until full costings of Shirehall were known.

E.6 In response, the Cabinet Member Culture and Environment stated that Shirehall remained the preferred location for the library, arguing that it was one of the county's finest civic buildings and that there is a responsibility to restore and reuse the building.

E.7 Concern was raised about disabled access in the revised layout. The Corporate Director Economy and Environment responded that compliance with accessibility

requirements would need to be designed into the scheme and that the council could not lawfully bring forward a public building without meeting those standards.

E.8 The Service Director Economy and Growth explained that governance arrangements exist through cabinet member decisions, records of officer decisions, the capital programme and delegated budget allocations. It was stated that these could be provided to the committee if required, including the relevant decision routes for both the museum and Shirehall projects.

E.9 In response to a question about what lessons should be learned from the project, it was suggested that the council needed to re-establish stronger quantity surveying and cost-planning discipline so that budgets were more robustly defined and controlled from an earlier stage.

E.10 Concern was also expressed that the revised library proposal for Shirehall might represent a reduced offer compared with what had previously been presented. The Corporate Director Economy and Growth responded that the intention remained to spend the same Stronger Towns allocation on the library installation and to achieve a high-quality outcome, albeit in a different configuration.

E.11 In response to a question about the attitude of the Stronger Towns Board, the Corporate Director Economy and Environment stated that confidence had needed to be reestablished in the council's ability to deliver the projects but that engagement with the board had been progressing positively. It was noted that presentations were expected in September to show how the designs and delivery arrangements were developing.

F. Holme Lacy Road

F.1 The committee then lastly considered the Holme Lacy Road project. The Delivery Director - Infrastructure described it as an important levelling up funded scheme intended to improve links between the Rotherwas employment site to the city centre, improve safety and active travel provision with cycle facilities, resurface the road and redesign of one of the roundabouts where incidents had occurred.

F.2 It was added that the project had been challenging because Holme Lacy Road was a traffic-sensitive route carrying significant volumes of traffic. It was reported that early difficulties had included an unexpected water main and the need to rethink the original traffic management approach to avoid disruption.

F.3 It was explained that the revised approach had delayed completion into the following year, but that the scheme was over 40 percent complete and was progressing in phased sections intended to reduce congestion impacts.

F.4 In response to a question about key risks and issues, the Delivery Director - Infrastructure identified traffic management concerns and public reaction to visible design changes on the ground, particularly at the railway bridge and in sections where road widths were being altered to make space for active travel measures.

F.5 In response to a question about whether residents had been kept informed, the Delivery Director - Infrastructure stated that residents had been kept informed through regular stakeholder updates and dedicated web pages that contains information about the scheme.

F.6 In response to a question about public understanding of the project, the Delivery Director – Infrastructure added that further communication was planned, including publication of a microsimulation video showing how traffic was intended to flow

through the route and indicating that journey times were not expected to worsen despite additional traffic signals. It was acknowledged that continual engagement is important to keep people informed.

F.7 In response to a question about cycle provision on Commercial Road, the Delivery Director – Infrastructure advised that the Commercial Road scheme in development includes cycle provision along the length of the road. It was explained that the scheme had been delayed for two reasons: first, to avoid undertaking it at the same time as the Holme Lacy Road scheme and placing additional pressure on the network, meaning it had been pushed back to 2027; and second, to allow consideration of the outcome of city centre parking proposals, as Commercial Road would be important both for any additional parking provision and for integration with the Aylestone Hill scheme.

F.8 The Delivery Director – Infrastructure added that in relation to levelling up funding, there are a number of levelling up projects that are being delivered as part of a programme and wherever savings are made on one project, that money will be redirected to support the delivery of other projects.

F.9 In response to scepticism about the likely benefits of the scheme, the Delivery Director – Infrastructure stated that the road would be narrowed only where it was already constrained and only to the extent necessary to provide a single cycle lane. It was added that traffic on Holme Lacy Road was expected to reduce following completion of the bypass, with the route intended to serve more as a residential road with improved connectivity between Rotherwas and the city centre, rather than as a rat run. It was further clarified that the road would remain at a standard width for vehicles to pass and would not be reduced to a single lane.

F.10 The Cabinet Member Transport and Infrastructure noted that the Holme Lacy Road scheme would deliver the active travel measures needed in Hereford and improve the route's function as an active travel corridor, rather than focus primarily on access to the A49. It was added that savings from projects such as Holme Lacy Road would help support the delivery of subsequent schemes, including Commercial Road.

Resolved

1. **That the executive reviews the council's current arrangements for developing cost estimates for major capital projects before projects proceed to approval stages.**

2. **That the council explores the provision of a marshal to manage bus manoeuvres in the transport hub.**

3. **That the council consider an incubation hub as part of the development of phase 2 of Ross Business Park.**

4. **That the council provide more regular public updates on the progress on the revised developments of Shire Hall and the Hereford Museum and Art Gallery.**

8. WORK PROGRAMME 2026-7

The committee considered the draft work programme. It was agreed that consideration of the item be deferred to the next meeting of the committee.

9. DATE OF THE NEXT MEETING

The date of the next meeting is Monday 20 July 2026, 10:00 am.

The meeting ended at 4.46 pm **Chairperson**

Herefordshire Council

Title: Hereford Western Bypass Phase One – Full Business Case

Meeting: **Connected Communities Scrutiny Committee**

Meeting date: **Monday 20 July 2026**

Report by: **Scott Tompkins, Delivery Director - Infrastructure**

Classification

Open

Report purpose

To provide committee members with the full business case for Hereford Western Bypass Phase One, along with the assessment criteria that will be used alongside the full business case by Cabinet to determine whether to proceed with the project.

Background

1. Cabinet requested that the Connected Communities Scrutiny Committee scrutinise both the full business for Hereford Western Bypass Phase One, along with the assessment criteria that will be used alongside the full business case by Cabinet to determine whether to proceed with the project.

2. On 15 April 2026 the committee scrutinised the assessment criteria to be used alongside the full business case. It recommended that the business case and assessment criteria:

    a. Move from pass/fail assessments to scored or graded assessments, to ensure more granularity in traffic outcomes, safety outcomes, land acquisition, carbon reduction, woodland mitigation, biodiversity net gain, construction price, social value, affordability, and value for money.
    b. Widen the criteria for measuring social value to include the distribution of impacts on people in Herefordshire.
    c. Ensure clearer reporting of project risks, assumptions and uncertainty.
    d. Ensure the report to Cabinet incorporates high/medium/low growth risk scenarios.

3. Cabinet accepted all four recommendations and have revised the assessment criteria for the full business case. The revised criteria are attached as Appendix 1.

4. The revised assessment criteria will provide a framework for Cabinet to determine whether to proceed with Hereford Western Bypass Phase One on the basis of the full business case. The full business case is attached as Appendix 2, and its appendices are attached as Appendices 3 and 4.

Further information on the subject of this report is available from
Scott Tompkins, Delivery Director - Infrastructure, email: Danial.Webb@herefordshire.gov.uk

Meeting objectives

5. Scrutinise the full business case to ensure it provides Cabinet with sufficient information to make an informed decision on Hereford Western Bypass Phase One, having regard to the assessment criteria.

Report information

6. The information relevant to scrutiny of this item is contained in the report's appendices.

Consultees

7. None

Appendices

Appendix 1: Assessment Criteria Hereford Western Bypass Phase One Full Business Case
Appendix 2: Hereford Western Bypass Phase One Full Business Case
Appendix 3: Hereford Western Bypass Phase One Full Business Case appendices Hereford Western Bypass Phase One Full Business Case Appendices A-H
Appendix 4: Hereford Western Bypass Phase One Full Business Case appendices Hereford Western Bypass Phase One Full Business Case Appendices I-S

Background papers and resources

None identified

Appendix 1

Assessment Criteria and Requirements

Case Model	Assessment Criteria and Requirements	How it will be reported
Strategic Case (Case for change)	Why is the project necessary?	The business case evaluates the problems and issues and how the delivery of Phase One will impact these.
	Project objectives are identified and measurable?	Summary list of the objectives and how they are being measured in the form of a logic map to demonstrate the outputs, outcomes and impacts associated with the objectives
	Alignment with national and local policies	The business case demonstrates alignment with national and local policies
	Improvements to Jouney Times	List of routes with reduced traffic flows and improved journey times
	Any routes showing slower journey times	List of any routes with increase traffic flows or where journey times worsen
	Any routes showing reduction in accidents	Total expected reduction in slight accidents by severity
	Any routes showing increased accidents	Total expected increase in serious and fatal accidents by severity
	Overall accidents as measured by Cobalt assessment	Total disbenefit figure
	Identifcation of the potential impacts of the scheme on different groups across society	Equality Impact Assessment (EQIA)
	Modelling work demonstrates increased resilience to incidents and peak-period congestion	Summarise the outcome of the modelling outputs regarding improved resilience.
	Woodland compensation	Number of additional acres of tree planting to compensate for loss of approximately 1.3 acres of ancient woodland
	Carbon reduction as measured by VECAT assessment	Total reduction in carbon estimated over the 60-year appraisal period compared with the Do Minimum scenario.
	Noise and air quality assessments	Assessment outcomes from the noise and air quality modelling
Value for Money)	Benefits to Costs Ratio (BCR) represents value for money having achieved a Medium or High assessment score.	A BCR score above or equal to 1.5 achieving a medium assessment score.
	Net Present Public Value (NPPV) is positive demonstrating the scheme represents an expected overall gain in public value.	A positive NPPV score
	Present value of benefits	Combined Present Value of Benefits (PVB) is greater than £50m

Assessment Criteria and Requirements

Case Model	Assessment Criteria and Requirements	How it will be reported
Economic Case (	Wider economic Benefits (WEBs)	Direct user benefits (Level 1 impacts) included within the economic appraisal of the scheme.
	Consider the impacts on the logistics industry and freight movements.	VoT for freight across the network
	Wider social value benefits are considered	Evaluate the table of consequential distributional benefits
	A high, medium and low growth scenarios have been used in the modelling work assessment to ensure that wider economic impact risks are being considered	Distribution of benefits for high, medium and low scenarios are provided
Commercial Case (Procurement and Market)	A compliant and commercially robust tender process was used to secure the contractor appointment, and a tender evaluation report has been signed off by the director.	Report produced and signed off by director
	Risk have been allocated fairly within the construction contract, and the council is reasonably protected from costs increases.	Legal team have reviewed PCSA and Construction contracts and have advised on nature of the council risks and this has been accepted by the Director.
	Cost increases during PCSA period related to inflation or any extrodinary circumstances.	Total change in cost from tender price related to inflation or financial impacts of extraordinary circumstances
	Value engineering opportunities have been explored with a list of costed accepted changes and a list of contingency changes prepared.	Total amount of estimated savings from value engineering
	Surveys completed and all cost estimates for utility diversions included in final construction cost estimates.	Confirmation of utilit survey work during PCSA.
ıcial Case (Affordability and Funding)	Construction cost estimates are agreed taking into account all planned value engineering and contingency	Construction cost estimate
	Development costs incurred including land purchases, design costs and professional services costs.	Development cost figure
	Total contingency budget available at time of Cabinet decision.	Should match assessed contingency budget need as set out by a quantified risk review.
	Cost of scheme	Available Capital and Revenue budget at time of Cabinet decision is more than the total estimated scheme costs

Assessment Criteria and Requirements

Case Model	Assessment Criteria and Requirements	How it will be reported
Finar	Scheme has been accepted by DfT as a 'retained' scheme with no objection to the partial use of Local Transport Grant funding.	Confirmation from DfT has been received
Management Case (Deliverability)	Full construction programme in place identifying clear critical path and dependencies	Programme in place. List construction start and estimated completion dates.
	A joint contractor and client risk register is developed and a process for monthly reviews of risk by the project board is in place.	Risk register in place
	Contractor has provided a deliverable plan with defined actions and with local organisations supported.	Report social value actions taken during PCSA period to date and deliverable plan accessment
	Clear demonstration that approvals have been obtained or are well advanced, with AIP's moving through the respective governance processes within National Highways and Network Rail.	Report on current position with Network Rail and National Highways AIP's.
	Planning permission for the main scheme in place	Approved planning
	All pre-construction planning conditions discharged (or have route to discharge) or with sufficient mitigation strategies in place to enable a start on site.	Conditions discharged
	Temporary work planning applications have been prepared for submission and meet any pre-application advice requests.	Status of applications
	The land is in council ownership or control with remaining land in route to acquisition through CPO or private treaty acquisition.	Report of land in council control and commentary on CPO or acquisition processes approved by director.
	Clear environmental mitigation stratigies are in place and agreements with Natural England are in place or well advanced.	Summmary paragraghs highlighting what mitigation plans are in place or will be agreed.
	Contractor has submitted a carbon management plan demonstrating they have measures in place to manage carbon during construction	Confirmation of submitted plan with summary commentary

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APPENDIX 2

Hereford Western Bypass

Phase One Full Business Case

Herefordshire Council

June 2026

Delivering a better world

Quality information

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1. Strategic Dimension

Hereford Western Bypass

Phase One - Strategic Dimension

Herefordshire Council

June 2026

Delivering a better world

Quality information

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1 Introduction

1.1 Foreword

1.1.1 The Hereford Bypass is a transformational opportunity to improve the environment through the city centre, making it a more attractive location, to live, work, study and undertake leisure activities. The full bypass also provides more resilience with an additional river crossing, as well as the opportunity to provide more homes within the city and support economic development and growth, supporting the expansion of existing employers as well as attracting new jobs and businesses to the city.

1.1.2 The full Hereford Bypass is a major road scheme, that will require significant external funding from the Council, Government (Department for Transport), National Highways and the private sector (e.g. employment site and housing developers). Recognising this the bypass will be delivered in two separate phases.

1.1.3 Funded entirely by Herefordshire Council, Phase One will start to the south of the city linking the A49 to A465. Phase One will provide the key building block from which the remainder of the bypass can be constructed. Phase One will also provide localised benefits in its own right, in particular through improving access to the Rotherwas Industrial Estate and the adjacent Hereford Enterprise Zone, which collectively are the largest employment area in the city; together with reducing traffic in the residential areas across South Wye and also reducing the inappropriate use of rural roads across the south of the city.

1.1.4 Phase Two will commence from the Phase One/A465 junction and route to the west of the city, before turning east to link back with the A49 to the north of the city. This stage of the scheme is in an earlier stage of development, with updated proposals for this element of the scheme anticipated to be published in 2027.

1.1.5 The complete bypass scheme is anticipated to provide significant benefits to the city of Hereford, reducing the volume of traffic travelling through the city centre and enabling significant growth to the west and north of the city. Phase One of the bypass is a downpayment on achieving transformational change within the city. The benefits of Phase One are modest relative to full bypass but still represent value for money in isolation; the benefits being mostly located across South Wye and the rural areas to the south of the city. However, the scale of benefits from Phase One makes it a value for money investment.

1.1.6 This Full Business Case document sets out the case for investing in Phase One of the bypass. This detailed report shows that across numerous different analysis types covering policy, environment, traffic and economy, that delivering Phase One by itself provides improvements that will benefit residents of the city and surrounding areas and represents a Value for Money investment.

1.1.7 The complete Hereford Bypass provides the opportunity to transform the City of Hereford. The delivery of Phase One of the bypass represents the first step of that journey. Whilst Phase One will not enable the scale of transformational change that the full bypass will, it will make a significant difference in South Wye whilst also providing that first step to a larger improvement for the whole city.

1.2 Overview

1.2.1 This report sets out the Full Business Case for the delivery of Phase One of the Hereford Western Bypass. This initial phase will act as the key enabler for the delivery of the full bypass at a later date, whilst also providing benefits in its own right to the people and transport networks in Hereford south of the River Wye.

1.2.2 These benefits include improved connectivity to the large employment area in the south of the city (Rotherwas Industrial Estate and Hereford Enterprise Zone (HEZ)), which will have a number of associated benefits such as relieving residential route pressures in the South Wye area, economic growth and improved business productivity, reductions in noise and air pollution close to residential receptors and improved social outcomes.

1.3 Scheme Background

1.3.1 The proposal for a bypass of Hereford was initially developed over 30 years ago in the early 1990s. Since then, various options for both eastern and western alignments (of the city centre) have been considered.

1.3.2 The preference for a western bypass came out of study work conducted between 2010-2013 and was included in the adopted Herefordshire Local Plan Core Strategy 2011-2031, as a key element of the long-term Hereford Transport Strategy (HTS). The scheme was identified in the Local Plan as a strategically important piece of infrastructure in reducing through traffic in the city centre and enabling the delivery of walking, cycling and bus improvements on the existing highway network, whilst helping to facilitate significant growth proposals.

1.3.3 At the same time, the South Wye Transport Package (SWTP) was identified in the Local Transport Plan (LTP) as an important strategy for promoting economic growth within Hereford whilst tackling specific problems in the South Wye area. The SWTP was part of the broader HTS and a key element of the package was the inclusion of a new Southern Link Road (SLR), from the A49 to the A465 (now forming ‘Phase One’ of the Western Bypass).

1.3.4 Delivery of the SLR and wider Western Bypass were the preferred options through the 2010s, based on various option assessment works. In May 2015, a planning application for the SLR was submitted and approved in July 2016 (which remains extant). Nominal works commenced in July 2019 to keep the planning permission live.

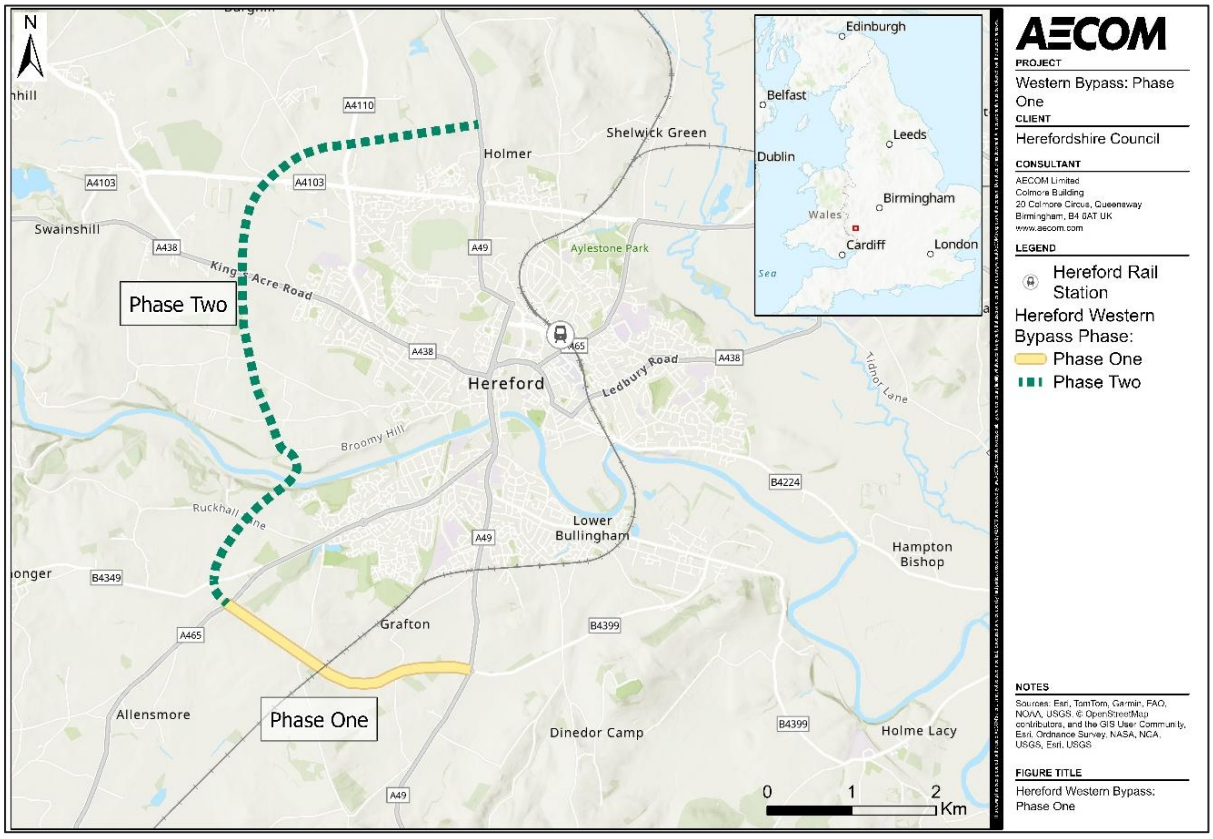
1.3.5 However, following the May 2019 Council elections, a decision was taken to pause work on all new major road schemes in Herefordshire. This meant that work that had started on the FBC in 2018 for the SWTP was halted. Between 2020–2021, consideration was given to a range of active travel measures and an eastern alignment of the bypass (the Eastern River Crossing). This decision was reversed following the elections in May 2023, with the New Road Strategy for Hereford (2024) recommending that progress should be recommenced with the Western Bypass.

1.3.6 In addition, the update to the National Planning Policy Framework (NPPF), published in December 2024, almost doubled Herefordshire’s housing target, leading to an increased focus on growth to the north and west of Hereford. This further emphasised the need for the full bypass to the west of Hereford which will likely have a significant role in unlocking land for housing and employment uses in the city.

Western Bypass – Phase One and Two

1.3.7 There are two Phases of the Hereford Western Bypass, which are shown in Figure 1-1.

Figure 1-1: Western Bypass Phases



1.3.8 Phase One forms the focus of this Full Business Case (FBC) which has been developed using the latest Department for Transport (DfT) business case guidance.

1.3.9 Phase One is the critical first stage of the broader, long-term Western Bypass scheme which sets the foundation for the future phase (Phase Two) whilst providing initial standalone, meaningful benefits across the South Wye area as described throughout this business case. Full planning permission is in place for Phase One. The alignment is fixed and forms the southern part of the overall Hereford Bypass project, providing a link between the A465 and A49.

1.3.10 Phase Two forms the northern component of the Western Bypass, connecting with Phase One at the A465 junction and providing onward connectivity, routing to the west of the city centre, including a crossing on the River Wye via a viaduct structure, before connecting with the A49 to the north of the city. It is at a less-advanced stage than Phase One but remains a key component of the wider bypass scheme, whereby the full strategic and network benefits will only be realised through the completion of both phases.

2 Strategic Dimension

2.1 Overview

2.1.1 The Strategic Dimension sets out the strategic rationale for the scheme, establishing the case for change and demonstrating how Phase One of the Hereford Western Bypass aligns with national and local policy, scheme priorities and key objectives. It summarises how the scheme supports wider transport and development strategies for Hereford, including improved access to the Rotherwas Industrial Estate and Hereford Enterprise Zone and enabling future delivery of Phase Two, to complete the Western Bypass.

2.1.2 The chapter is split into the following sections:

- Overview of study area;
- Scope of the scheme and approach taken to identifying the preferred scheme;
- Strategic context, including alignment with national and local policy;
- The 'Case for Change', based on network performance, socio-economic and environmental indicators;
- Detail on the stakeholder support expressed for the Phase One scheme;
- Objectives of the scheme;
- A Logic Map and detail on the measures for success of the scheme;
- Constraints and dependencies associated with the scheme;
- Scheme risks; and
- Findings from the Equality Impact Assessment (EQIA) undertaken for the scheme

2.2 Study Area

2.2.1 Phase One of the bypass is located within the South Wye area of Herefordshire, to the immediate south of Hereford city centre. The South Wye area contains large residential areas as well as the Rotherwas Industrial Estate and Hereford Enterprise Zone.

2.2.2 The Rotherwas Industrial Estate is a major employment site in Hereford, currently supporting over 350 companies and 3,500 jobs. The Hereford Enterprise Zone adjoins onto the Rotherwas site and currently accommodates a further 2,000 jobs in 91 companies with more construction underway. The scale of Rotherwas and the HEZ means that these collectively provide an important industrial and employment site that support the wider county and not just the city of Hereford. Throughout the remainder of this business case, we will refer to the Rotherwas and Enterprise zone site collectively as the HEZ.

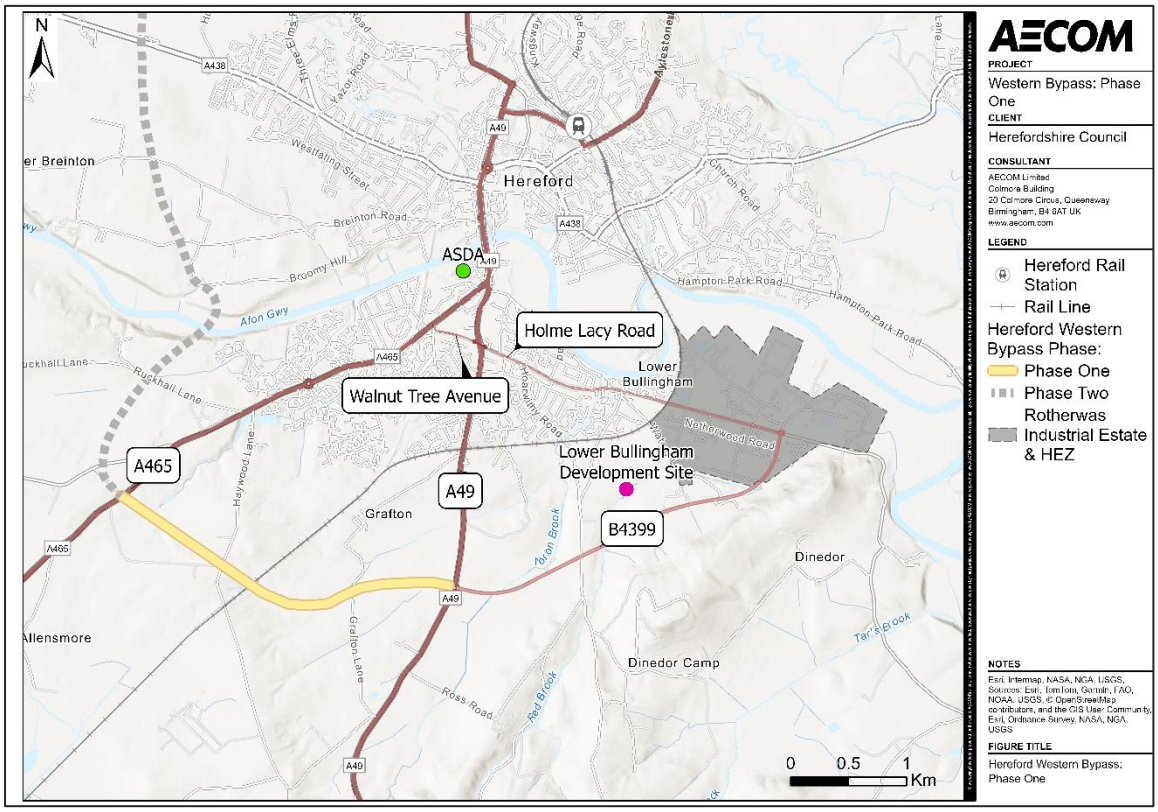
2.2.3 Lower Bullingham to the immediate east of the Phase One scheme is contains a proposed mixed-use site within the currently adopted Local Plan, which would also deliver significant housing and employment opportunities to the local area. South Wye is supported by a network of local distributor roads, including Holme Lacy Road and the B4399 which provide connectivity to the HEZ, along with the A49 and A465 which route through the study area.

2.2.4 Beyond the residential and commercial areas, the remaining land outside of the city is largely rural with several small settlements and villages.

2.2.5 The A49 and A465 are strategic routes which connect south of the city, at the "ASDA Roundabout" and provide a key corridor into and out of Hereford city, and across the River Wye. The A49 (which is part of the Strategic Road Network (SRN)

and managed by National Highways) currently has the only river crossing (Grey Friar's Bridge) in Herefordshire capable of carrying large volumes of traffic. The Phase One scheme will provide an important link between the A49 and A465. Figure 2-1 sets out the location of the Phase One scheme in the context of the South Wye study area.

Figure 2-1: Hereford Bypass Phase One Study Area



2.3 Scheme Scope and Option Assessment

Scheme Scope

2.3.1 The alignment for Phase One is fixed and forms the southern part of the route section of the overall Hereford Bypass project. Full planning permission is in place for Phase One. The scheme proposed under planning application ref. P151314/F will provide a new single carriageway road (one lane in each direction) between the A49 Ross Road at the roundabout with Rotherwas Access Road and the A465 / B4349 Clehonger Link Road junction.

2.3.2 The proposed route is approximately 3.6 km in length with a design speed of 60mph and extends westwards from a new fourth arm to the existing A49 roundabout, through Grafton Wood, continuing over Grafton Lane at Withy Brook before crossing above the existing Hereford to Newport railway line. It then passes below Haywood Lane and continues in a north westerly direction to the A465, where a new four arm roundabout would be provided with two entry lanes and two exit lanes. The road then extends from the proposed roundabout creating a new link to the B4349 (Clehonger Road).

2.3.3 Phase One also anchors and facilitates the wider Hereford Western Bypass (through delivery of the Phase Two element of the scheme), which will bring significant benefits to the city, county and wider region, enabling ambitions for housing and employment growth to be realised.

2.3.4 A detailed layout of the scheme is provided in Appendix A.

Option Assessment

2.3.5 The scheme and alignment options have been identified following a detailed option assessment process, which is outlined in the South Wye Transport Package Preferred Option Report Final (2014) [1]. As part of this, a long list of eight route alignment options (SC1 to SC7) were identified[2]. The indicative alignments of these routes are shown in Figure 2-2.

Figure 2-2: Long-list of Options



Source: Phase One alignment options have been re-produced for this report from Southern Link Road – South Wye Transport Package Consultation Report 3[3].

2.3.6 All eight options were appraised in alignment with DfT guidance. The appraisal assessed the full range of impacts including both positive and negative, across a consistent set of criteria;

- Economic
- Environment
- Social Impacts
- Public Accounts

2.3.7 The initial appraisal identified four options (SC1, SC3, SC4 and SC6) which did not represent feasible solutions to the transport problems and were found to result in significant environmental impacts. The removal of these options narrowed the assessment to four potentially viable routes (SC2, SC2A, SC5 and SC7).

[1] South Wye Transport Package Preferred Option Report Final (2014)
[2] Southern Link Road – South Wye Transport Package Consultation Report 3 (2014)
[3] Southern Link Road – South Wye Transport Package Consultation Report 3 (2014)

2.3.8 The remaining four route options were brought forward and considered as part of the South Wye Option Refinement Report (2019)[4] which demonstrated that all four options delivered strong economic and transport benefits, including:

- Enhanced access to the HEZ and future housing growth
- Improved journey times and reliability
- Reduced congestion

2.3.9 The assessment concluded that Option SC2 was the best overall preforming route option, delivering economic and social benefits with lower impacts on biodiversity and woodland relative to the alternative options, providing a greater balance between environmental effect and value for money.

2.3.10 Therefore, the appraisal and refinement process identified Option SC2 as the preferred route for Phase One of the Hereford Bypass and this route forms the focus of this FBC. The design for this option received planning permission in July 2016 (which remains extant) and forms the basis for this FBC. The Scheme Background section (section 1.2) provides further detail on the history of the scheme prior to the development of this FBC.

2.4 Strategic Fit

2.4.1 A key element of the Strategic Dimension is to demonstrate why the scheme is needed (Case for Change) and how it supports wider governmental and organisation objectives. The following sections of this document focus on these elements, commencing with a review of key policies and strategies at both a national and local level has been undertaken to determine the strategic fit of the Phase One scheme. This review is set out below.

National Policy

2.4.2 The alignment of the scheme with key polices and strategies at a national level is set out in Table 2-1.

Table 2-1: Scheme Alignment with National Policy

Document (year)	Alignment
The UK's Modern Industrial Strategy (2025)	The industrial strategy is a 10-year plan to increase business investment and to grow industries of the future in the UK. **Alignment:** The scheme contributes to achieving the government's aims for better modern infrastructure development, economic growth and improved connectivity. Phase One will provide a significant upgrade to Herefordshire's existing highway infrastructure across the South Wye area, providing improved connectivity to the Hereford Enterprise Zone (HEZ), aligning with the Modern Industrial Strategy which emphasises that "businesses rely on transport infrastructure to move their products and access talent".
Better Connected: A Strategy for Integrated Transport (2026)	'Better Connected' is an integrated transport strategy, published by the Department for Transport (DfT), which outlines the strategic vision and priorities for creating a safer, more reliable, accessible, and integrated transport system across England. The strategy sets out three core guiding principles: people, place and partnership. The strategy helps to ensure that transport systems are designed to meet the needs of individuals, creating better-

[4] South Wye Transport Package Options Refinement Report (2019)

Document (year)	Alignment
	connected communities and fostering collaboration between local leaders, government, and private sectors. **Alignment:** Phase One has clear alignment across the “Better Connected" guiding principles as follows: **People** - The scheme will take traffic out of predominantly residential areas in Belmont and along Holme Lacy Road, supporting measures being delivered through separate programmes such as LUF/ATE/LTP to encourage behavioural change by improving the environment for active travel in these areas. **Place** - Phase One will contribute to making the South Wye area a better place to live, work and operate a business. Improved transport links to the HEZ will make it easier for workers and goods/materials to be transported to/from there. It will also reduce traffic travelling through residential areas improving the environment for the people who live there. **Partnership** - the delivery of Phase One demonstrates that HC are listening to business and getting on with improving transport links to help attract new employers to the HEZ, whilst helping to support those who are already established in this area
Road Investment Strategy 3 (RIS3) (2026-2031)	RIS3 sets out government’s priorities for the Strategic Road Network (SRN) in England from 2026 to 2031 and places emphasis on growing the economy, improving safety for all, providing a resilient network, delivering improved environmental outcomes and improved network performance. **Alignment:** The Phase One scheme will act as an enabler for the delivery of the wider Western Bypass (including Phase Two) which will provide a viable alternative to the A49 for routeing north-south of the city and have a significant impact on the performance and resilience of the network. The ultimate aim being to de-trunk the A49 through the city and reclassify the new bypass as part of the SRN. HC’s commitment to delivering Phase One demonstrates to NH the importance that is placed on achieving the wider bypass of the city and provides the basis for closer engagement with NH throughout RIS3 for the purpose of securing future funding commitments for Phase Two.
Decarbonising Transport – A Better, Greener Britain (2021)	This strategy sets outs the DfT’s plan to net zero transport in the UK, the wider benefits it can deliver, and sets out the principles that underpin the delivery approach. **Alignment:** Phase One of the Western Bypass supports “Priority 1: Accelerating modal shift to public and active transport” by reducing congestion along the A465 Belmont Road and Holme Lacy Road, which will improve the reliability of bus services in the South Wye area. It will also increase the attractiveness of active travel schemes across the local area, as a result of reduced traffic flows.
National Planning Policy Framework (2024)	The revised NPPF sets out the government’s planning policies for England with an overarching focus on promoting sustainable development. **Alignment:** The NPPF sets out ambitious growth targets for Herefordshire, including 27,500 dwellings which can only be realised through significant investment in infrastructure improvements to the transport network across the county,

Document (year)	Alignment
	including the Western Bypass. The document also emphasises sustainable travel which the scheme will indirectly help to achieve by reducing traffic flows on key routes such as the A465 and Holme Lacy Road which will increase their attractiveness as bus/cycle routes. Phase One will support the delivery of growth in the south of the city that is contained within the current adopted Local Plan.
Cycling and Walking Investment Strategy (CWIS2) (2022)	The CWIS2 builds on the aims and targets in DfT's CWIS1 and Gear Change plan to set out the government's longer-term ambition for walking and cycling until 2040. The strategy's ambition is that "walking, wheeling and cycling are the natural choices for shorter journeys, or as part of a longer journey". The CWIS3 has recently been subject to public consultation up to December 2025 and is expected to be released and subsequently replace CWIS2 in 2026. **Alignment:** Phase One will help to reduce traffic demand along Holme Lacy Road for accessing the HEZ and therefore will provide a more appealing and safer environment for active travels users along this route. This complements the £20m funding that HC secured from the government's Levelling Up Fund which is being used to deliver Walking and Cycling improvements to Holme Lacy Road and the development of 'Quiet Routes' linking neighbourhoods to the HEZ.
National Bus Strategy – Bus Back Better (2021)	The national strategy sets out the vision and opportunity to deliver better bus services for passengers across England. **Alignment:** Phase One of the Western Bypass will support the National Bus Strategy by reducing congestion along key bus routes in South Wye, which will make bus services more reliable and attractive for accessing Hereford city centre.

Local Policy

2.4.3 The alignment of the scheme with key polices and strategies at a local level is set out in Table 2-2.

Table 2-2: Scheme Alignment with Local Policy

Document (year)	Alignment
Herefordshire Local Plan Core Strategy 2011 – 2031 (Adopted 2015)	The adopted Herefordshire Local Plan Core Strategy (2011-2031) includes Policy SS4 – Movement and Transportation, which states that Herefordshire Council will work with relevant partners to bring forward improvements to the local and strategic road network. **Alignment:** the provision of a Western Relief Road is a key part of the adopted Core Strategy - Policy SS4 'Movement and Transportation' and Phase One will deliver a key part of this infrastructure. The adopted Policy HD6 - Southern Urban Expansion (Lower Bullingham) plans for 1,000 new homes and 5Ha of employment land that will be accessed from the B4399 Rotherwas Access Road. Phase One will provide improved connectivity to this development site, increasing the attractiveness to it for developers and employers.

Document (year)	Alignment
Herefordshire Infrastructure Delivery Plan (2014)	The Infrastructure Delivery Plan (IDP) is a supporting document to the adopted Local Plan that focuses on the infrastructure capacity in Herefordshire. The IDP contains a list of the known strategic infrastructure requirements for Herefordshire which are grouped around three themes: Social Progress, Economic Prosperity and Environmental Quality. **Alignment:** The Hereford Western Bypass Phase One is identified as a key infrastructure requirement under the Economic Prosperity theme, in reference to its key role that it will play in improving access to the HEZ and supporting economic productivity.
Herefordshire Council Plan 2024 – 2028	This plan sets out the Council's priorities to ensure it delivers in providing a better and more successful Herefordshire. A number of challenges are laid out which the County currently faces and which need to be addressed in order to achieve the strategic vision of the Plan. This includes *'poor transport connectivity, which impacts on inward investment, travel and economic growth'.* **Alignment:** The scheme will go some way in helping to address this challenge by providing improved road infrastructure to the south-west of the city which will improve connectivity to the HEZ and thereby make it more attractive for inward investment and associated economic growth.
Herefordshire New Local Transport Plan (2025)	Herefordshire's new Local Transport Plan (LTP) was adopted in December 2025 and sets out the strategy and investment priorities for the county's transport network. The LTP contextualises the challenges and opportunities across the county, including the significant housing and employment growth required to support government targets and the associated transport infrastructure investment in the city and surrounding area which will be required to unlock the proposed growth. This includes delivery of the Western Bypass to provide access to new development areas and help remove through traffic from the City Centre. This in turn will help to improve air quality along key corridors and improve the journey time reliability of travel, whilst enabling the existing A49 through the city centre to be de-trunked. This will open up opportunities for other modes including dedicated facilities for people to cycle, walk and wheel in the city centre and support more reliable bus journeys as part of the wider strategy for Hereford to: – Support a thriving and prosperous economy – Enable healthy choices to improve wellbeing – Tackle climate change – Improve accessibility and inclusivity – Improve transport safety and security **Alignment:** The Phase One scheme will form a key component of the overall Western Bypass of Hereford and will be an enabler of the bypass coming forward and the overall strategy being realised. The LTP identifies further challenges across the county which have direct relevance to the Phase One element of the scheme, including the fact that some areas to the south-west of

Document (year)	Alignment
	the River Wye fall within the top 10% most deprived areas in England. As the Phase One scheme routes through this area, it will play a key role in attracting investment and improving connectivity and access to services and opportunities in this area of the county.
Herefordshire Big Economic Plan 2023 - 2050	This plan sets out the Council's strategy to support economic growth and opportunities for all residents and businesses to improve productivity and growth within the region. **Alignment:** The scheme aligns to the Council's 2050 vision by: – Providing a more reliable and resilient road infrastructure, with the new Phase One bypass expected to improve transport time reliability and capacity within the county – Improving accessibility to key employment sites, such as the HEZ, which will enable residents and businesses to access new opportunities – Increasing investment in infrastructure alongside increased inward investment within the county
Herefordshire Joint Local Health and Wellbeing Strategy (2023 -2033)	This strategy sets out how the Council and its local partners plan to address the health and wellbeing needs of its population during the period of 2023 - 2033. **Alignment:** The scheme will support the strategy's ambition of delivering 'Healthy and Sustainable Places'. By diverting traffic away from residential areas, particularly along the A465, the scheme will provide a healthier and safer environment with greater opportunity to be physically active and cleaner air for local residents.
Herefordshire Bus Service and Improvement Plan (BSIP) (2021)	The scheme will divert traffic away from key roads in South Wye such as the A465 Belmont Road and Holme Lacy Road and improve the reliability of bus services in South Wye, supporting a number of objectives outlined in Hereford's BSIP, including: – Objective 1: Establish a coherent, consistent and integrated bus network that is well understood and easy to use – by improving service reliability – Objective 4: Contribute positively towards Herefordshire's ambitions for decarbonisation and environmental improvement – improving service reliability that will encourage uptake in public transport – Objective 5: Support the wellbeing of Herefordshire residents, enabling people to access key services and live independently – improved service reliability enhances accessibility to services

Document (year)	Alignment
Herefordshire Council Delivery Plan (2025 - 2026)	Reviewed annually, the Delivery Plan outlines how the council's priorities and objectives will be achieved and delivered in the next 12 months. In the 2025 - 2026 document the four identified priority areas are People, Growth, Place and Transformation. **Alignment:** Phase One of the Western Bypass is directly referenced under the Objective: 'Expand and maintain the transport infrastructure network in a sustainable way and improve connectivity across the county'. Across 2025-26, the document states that the Council will "complete the necessary work to tender for the design and construction of Phase One of the Hereford Western Bypass", with a key milestone being the delivery of the Phase One business case (which is this document).

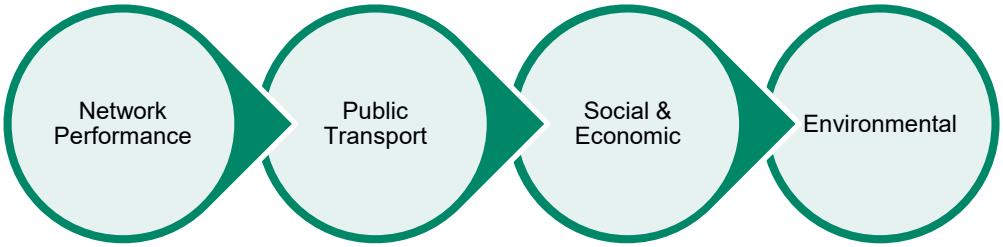
Summary of Strategic Fit

2.4.4 Phase One of the Western Bypass aligns with polices and strategies across all spatial scales and demonstrates a strong strategic fit. The scheme has been long been considered as an important component of Herefordshire's transport infrastructure which is required to be delivered to support economic growth and improve the network performance and resilience of the county. Its inclusion in the recently adopted LTP underlines the Council's commitment to delivering the scheme and its importance in realising the aims and priorities of Herefordshire's transport vision to 2041.

2.5 The Case for Change

2.5.1 Section 2.4 has identified that delivery of the Phase One scheme would align strongly with various policies and strategies at a national and local scale. These next sections are focused on demonstrating the case for change and strategic need for the scheme, based on analysis of existing problems, issues and opportunities. This analysis has been carried out across a range of themes to highlight how the delivery of the scheme would have a number of wide-ranging strategic benefits and demonstrating a strong case for investment. The key themes which have been analysed as part of this section are set out in Figure 2-3.

Figure 2-3: Case for Change – Key Themes



2.5.2 The following three sections of this document are structured around analysis against the above themes to highlight a compelling case for the scheme.

2.6 Network Performance

Existing Highway Network

2.6.1 The A49 is an important part of the SRN (managed by National Highways) that facilitates the connection between the English and Welsh borders, extending from Ross-on-Wye through Shrewsbury and into North Wales. The A49 provides an alternative north-south corridor to the motorway route via the M54, M5 and M50, therefore supporting the strategic movement of freight and long-distance traffic. Locally, the A49 runs through the centre of Hereford and plays a significant role in connecting the city's northern and southern areas. It is an urban dual carriageway and provides access across the River Wye via the (A49) Greyfriars Bridge.

2.6.2 To the south of the city centre, the A49 connects with the A465 Belmont Road, which serves the South Wye area of Hereford and provides connectivity to the Welsh borders. The A49 in South Wye also connects with Holme Lacy Road and the B4399, which both currently provide access to the HEZ

2.6.3 Extending west from Holme Lacy Road, Walnut Tree Avenue provides a connecting link between the A465 and the A49. This is an unclassified single carriageway road, which is residential in nature and has a school located along it. It also carries a weight restriction of 7.5 tonnes (except for access).

Network Resilience

2.6.4 Increased network capacity as a result of the Phase One scheme will improve network resilience south of the River Wye. The scheme will provide an alternative route between the A49 and the A465, avoiding the 'ASDA' roundabout where the A49 and A465 converge immediately south of the river. The scheme will also provide an alternative route to the HEZ from the A465, without needing to use Holme Lacy Road or other residential routes through Belmont. These alternative routing choices will relieve pressures on the existing network and ultimately improve the resilience of highway network south of the river.

2.7 Current Travel Patterns

Mode Share

2.7.1 The majority of journeys into Hereford city centre are made by car, however this varies by the origin of the trip. Figure 2-4 shows that while 55% of those that live and work in Hereford travel by using a car, 75% of trips that are taken by those living in market towns to commute into the city are by car. This increases to 90% when considering those living in rural areas (ONS Travel to Work TS061, Census 2021). Additionally, ONS data identifies that 86% of households own at least one car in Herefordshire compared to the national average of 75% (ONS Car and Van Availability, Census 2021).

Figure 2-4: Commuting Trips Split by Place



Source: Herefordshire Council – Local Transport Plan 5

2.7.2 The high dependency on trips by car in Herefordshire reflects the demographic rurality of Herefordshire. About 53% of the population in Herefordshire live in areas classed as 'rural', with the majority of these (43%) living in the most rural "village and dispersed areas" (Population around the County, Herefordshire Council). Secondly, a large proportion of residents in Herefordshire live in market towns that have limited public transport infrastructure and coverage, further increasing the dependence of journeys made by car.

2.7.3 Analysis of ONS Travel to Work (TS061) Census 2021 data undertaken in Herefordshire's Local Transport Plan 5 identifies that only 1% of commuting journeys in Herefordshire are made by bus or coach, and 4% made by wheeling and cycling which represents a low proportion of total mode share. Similarly, Census 2011 data indicates that 4% of commuting journeys were made by wheeling and cycling, while 2% were made by bus or coach (ONS Method of travel to work QS701EW, Census 2011) The lower share of journeys made by bus in 2021 may reflect the impacts of the COVID-19 pandemic on bus patronage.

2.7.4 The continued reliance on private vehicles strengthens the need for an efficient and reliable road network in Hereford. The Phase One scheme will provide additional network capacity, contributing to a better-performing network and will provide improved access to the HEZ.

2.7.5 Phase One will reduce demand on the A465 within Hereford for traffic travelling to and from the HEZ, which will free up network capacity and improve journey time reliability along an important bus route into Hereford. A more reliably performing bus network is likely to encourage modal shift and increase in bus users along this route. Traffic reductions on the A465 will also improve the environment for pedestrians and cyclists, which ties into the development of the western 'Quiet Routes' linking Belmont Road to Holme Lacy Road and to the city centre.

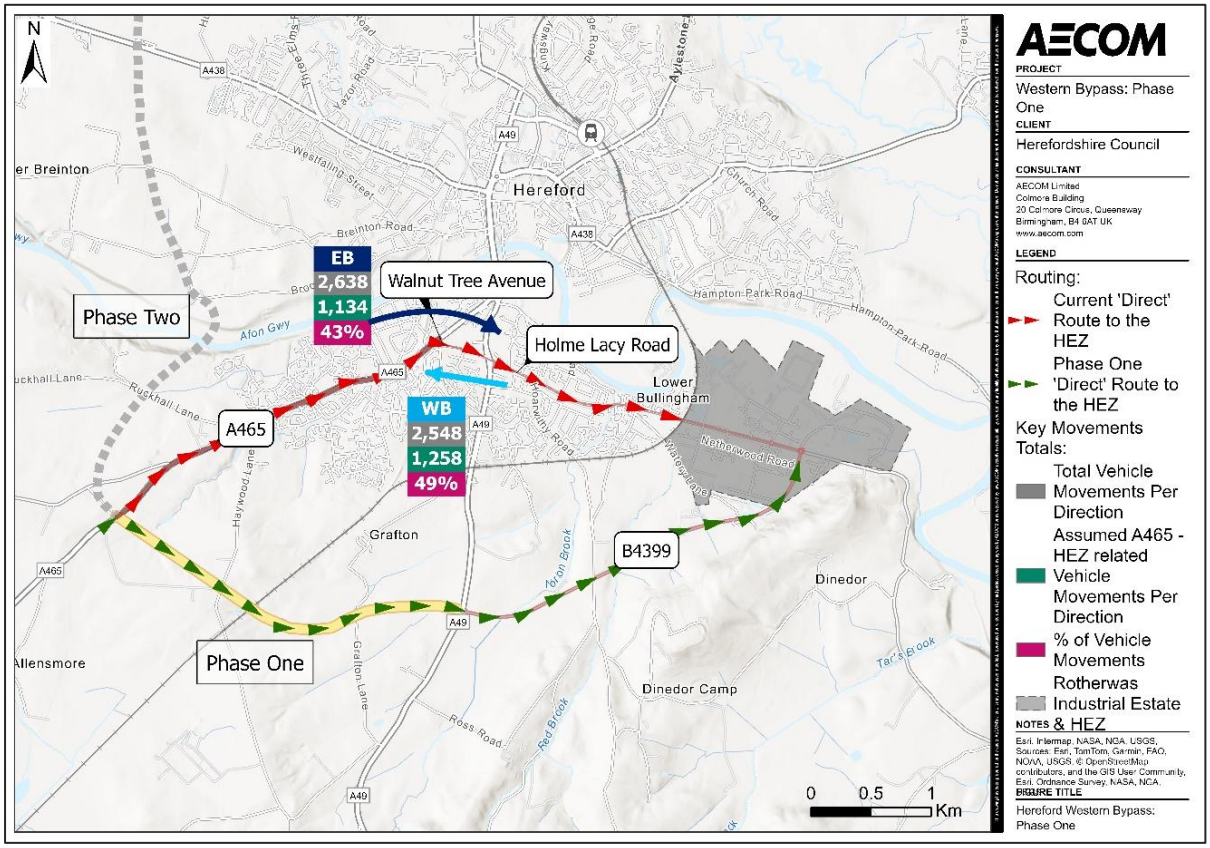
2.7.6 Similarly, a major scheme is being delivered along Holme Lacy Road aimed at transforming the road into a key 'spinal route' connecting residential areas to the HEZ and the city centre. A key focus of the scheme is improving facilities for active travel users through shared paths, raised tables and improved crossings, and with the Phase One scheme providing a viable alternative for vehicle-users to access the HEZ, this should in turn reduce vehicular demand along Holme Lacy Road and encourage more people to walk and cycle along this route. The Quiet Routes extend both to the west and east of Holme Lacy Road, helping to connect cyclists and walkers to the city centre and will encourage more people to shift to cycling and walking.

Key Movements

2.7.7 To access key trip attractors such as the HEZ, commuters from the southwest of Hereford will route along the A465 Belmont Road before turning right onto Walnut Tree Avenue, which then leads directly to Holme Lacy Road, as displayed in Figure 2-5. Automatic Number Plate Recognition (ANPR) data collected in April 2026 shows that 1,134 vehicles make this journey on an average weekday[5] which makes up 43% of all eastbound movements along Walnut Tree Avenue (2,638).

2.7.8 In the westbound direction along Walnut Tree Avenue (movements away from the HEZ), this equates to 49% of all movements out of a total of 2,548 vehicles. This highlights that almost 50% of all movements along Walnut Tree Avenue are making this specific journey highlighting the importance of this road as an access route to and from the HEZ. These key movements are shown in Figure 2-5. The Phase One scheme therefore has the potential to significantly reduce this traffic movement as it will provide an attractive, alternative route for commuters and freight traffic.

Figure 2-5: Current Key Travel Movement from Southwest Herefordshire to the HEZ



2.7.9 Walnut Tree Avenue is a weight-restricted local residential road (unclassified), with Our Lady's Catholic Primary School located half-way along the route. It is therefore not appropriate to be used as a through route for commuter traffic approaching the HEZ from the west. Similarly, the road leads on to Holme Lacy Road, which is also an unclassified residential road with significant works underway to improve its safety and appeal to active travel users, and again is unsuitable for accommodating significant commuter and industrial vehicular traffic.

2.7.10 As highlighted in Figure 2-5, the Phase One scheme will provide a more direct route from the southwest to and from the HEZ and reduce the need for commuter and freight traffic to route through residential areas to access the site. This will have a number of benefits, including:

[5] This is based on a two day average 12 hour survey period (28th - 29th April 2026 between 06:00 and 19:00)

- Improved, faster and more direct access to the HEZ for both commuter and freight traffic, which will make the site more attractive for inward investment.
- Reduced vehicular demand along the A465 Belmont Road, Walnut Tree Avenue and Holme Lacy Road, which will improve the safety of these residential routes, encouraging greater uptake of active travel
- Reduced vehicular demand along the section of the A465 Belmont Road north of the B4349 junction. This will improve journey time reliability along the route bus users and general traffic seeking to access Hereford city centre.

2.7.11 Reduced traffic routeing through in appropriate routes in rural and residential areas, improving safety and quality of life through reductions in noise and air pollution and helping to strengthen community cohesion.

Traffic Volumes

2.7.12 In April 2026, a traffic survey was undertaken to understand traffic volumes, classifications and movements, specifically in the Belmont area which is likely to be most affected by the implementation of the Phase One scheme. Automatic Traffic Counts (ATCs) were carried out for 7 days along Walnut Tree Avenue and Holme Lacy Road, with the results from this survey set out in Table 2-3 and Table 2-4 which show total vehicular counts.

2.7.13 The data is presented as a weekday average and shows the 12-hour total (06:00-19:00), AM peak (08:00-09:00) and PM (16:00-17:00) peak total vehicular traffic flows. Table 2-3 shows the Eastbound and Westbound movements along Walnut Tree Avenue. Overall, 2,638 eastbound and 2,548 westbound daily movements were recorded along Walnut Tree Avenue, and more vehicles were counted during the PM peak for both directions in comparison to the AM peak.

Table 2-3: Total Vehicular Counts (Weekday average) - Walnut Tree Avenue

Direction	12 Hour Total	AM peak	PM peak
Eastbound	2638	178	218
Westbound	2548	192	282

2.7.14 Along Holme Lacy Road, Table 2-4 shows that the overall total vehicle count is higher. The total number of daily vehicular movements is considerably larger in the westbound direction, and the PM peak period is busier than the AM peak period for traffic in both directions.

Table 2-4: Total Vehicular Counts (Weekday average) - Holme Lacy Road

Direction	12 Hour Total	AM peak	PM peak
Eastbound	4065	286	340
Westbound	6155	504	533

2.7.15 The Phase One scheme will provide an alternative route for commuter and freight traffic from the southwest accessing significant trip attractors such as the HEZ, which will reduce demand on a number of routes including the A465, Walnut Tree Avenue, and Holme Lacy Road. Likewise, the scheme will provide an alternative route for commuter and freight traffic leaving the HEZ for onward travel / distribution.

2.7.16 This is supported by evidence from the Herefordshire Strategic Transport Model (HSTM) which has shown that the introduction of Phase One alters routing choices for both local and through traffic. By providing an alternative East–West connection to the south of the urban area, traffic currently using constrained residential

corridors is redistributed to the new link; particularly from Holme Lacy Road and the A465 (Belmont Road).

2.7.17 Some longer-distance trips are also redistributed onto the Phase One scheme relieving pressure at critical junctions, such as between the A49 and A465, through Hereford city centre and along river crossings. Across the network, the redistribution is expected to lead to:

- reduced traffic volumes on sensitive urban routes;
- improved traffic speeds on key radial approaches; and
- increased resilience to incidents and peak-period congestion.

2.7.18 The HSTM has been used to extract the traffic flows in and around the Hereford city centre area and the Phase One scheme for the 2043 future year in a Do Minimum (without scheme) and Do Something (with scheme) scenario. These are set out in Table 2-5 and Table 2-6 covering the AM (08:00 – 09:00) and PM peak (16:00 – 17:00).

Table 2-5: 2043 DM vs DS Comparison (PCUs) - AM Peak

Locations	DM 2043 AM	DS 2043 AM	DS - DM	% change
Scheme Westbound	0	383	+383	100%
Scheme Eastbound	0	328	+328	100%
B4399 Westbound (East of the scheme)	344	443	+98	22%
B4399 Eastbound (East of the scheme)	384	462	+78	17%
A465 Northbound	585	493	-92	-19%
A465 Southbound	789	621	-168	-27%
Walnut Tree Avenue Westbound	376	292	-84	-29%
Walnut Tree Avenue Eastbound	164	127	-37	-29%
Holme Lacy Rd Westbound	802	758	-44	-6%
Holme Lacy Rd Eastbound	454	432	-22	-5%
A49 Ross Rd Northbound	866	834	-32	-4%
A49 Ross Rd Southbound	571	593	+22	4%

Table 2-6: 2043 DM vs DS Comparison (PCUs) - PM Peak

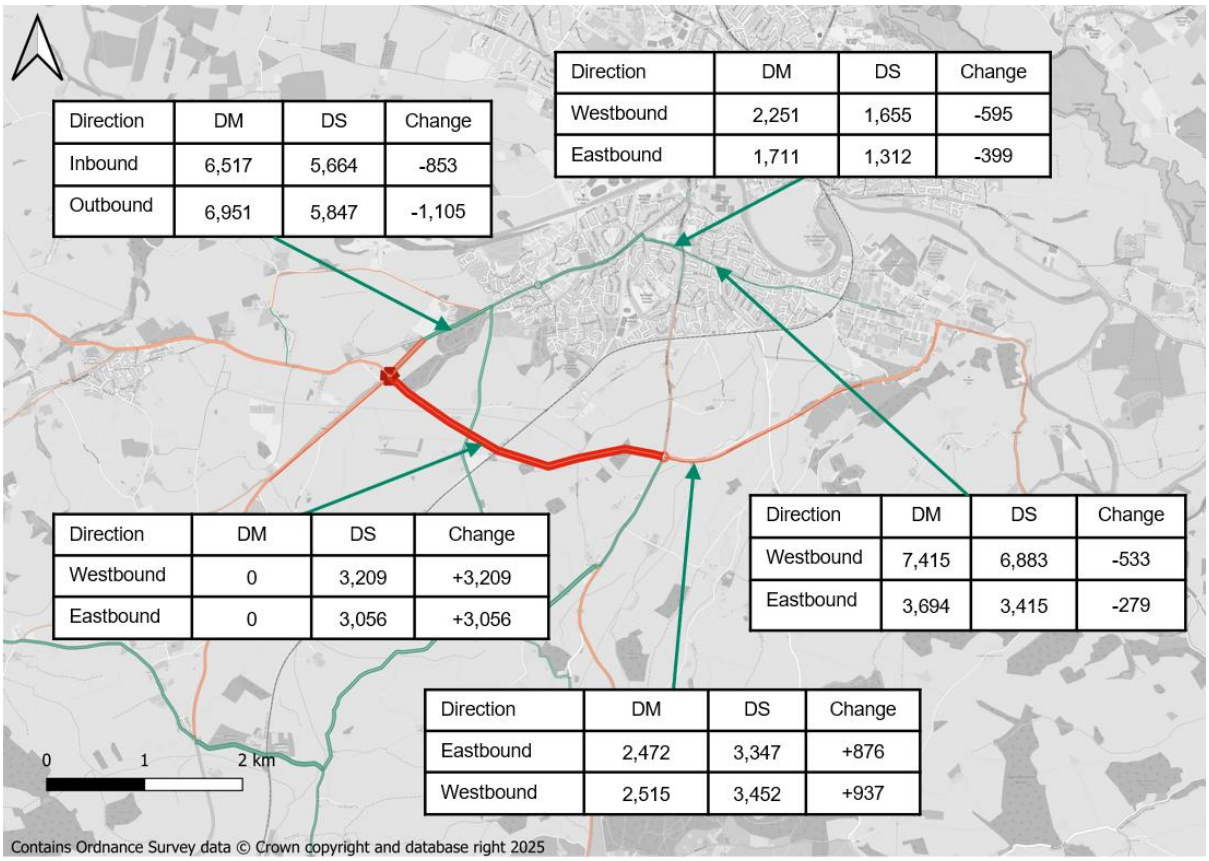
Locations	DM 2043 PM	DS 2043 PM	DS - DM	% change
Scheme Westbound	0	379	+379	100%
Scheme Eastbound	0	391	+391	100%
B4399 Westbound (East of the scheme)	398	478	+80	17%
B4399 Eastbound (East of the scheme)	297	411	+114	28%
A465 Northbound	725	622	-104	-17%
A465 Southbound	695	574	-122	-21%
Walnut Tree Avenue Westbound	180	134	-46	-34%

Walnut Tree Avenue Eastbound	179	140	-39	-28%
Holme Lacy Rd Westbound	668	627	-41	-7%
Holme Lacy Rd Eastbound	391	356	-34	-10%
A49 Ross Rd Northbound	683	686	+3	0%
A49 Ross Rd Southbound	665	682	+17	2%

2.7.19 As shown in the Tables above, reductions in vehicle flows are expected along the A465 (north of the junction with the Phase One scheme), Walnut Tree Avenue, and Holme Lacy Road in both directions and peaks when the scheme is in place compared to the DM scenario. The largest change in percentage terms is expected along Walnut Tree Avenue, with a reduction of up to 34% of flows in the 2043 DS scenario. The A465 shows the largest reduction in actual flows, with a decrease of almost 170 PCUs in the AM peak southbound direction. Limited change is expected along the A49. The Phase One scheme will connect on to the B4399 at its eastern extent, and therefore increases of between 78-114 PCUs are expected.

2.7.20 These reductions in flows along the A465, Walnut Tree Avenue and Holme Lacy Road are not just limited to the peak hours; Figure 2-6 shows the Annual Average Daily Traffic (AADT) forecasts for key links. A reduction of about 2,000 vehicles (15%) is expected along the A465, almost 1,000 vehicles reduction (25%) along Walnut Tree Avenue and a reduction of over 800 vehicles along Holme Lacy Road (7%).

Figure 2-6: 2043 AADT Flow Difference - Vehs



Freight

2.7.21 In Herefordshire, roads account for the majority of freight movements, with these movements focused upon the strategic trunk and A roads, such as the A49 and

A465. The A465 is a key corridor for strategic freight movements to and from the HEZ, especially for vehicles travelling from the southwest of Hereford.

2.7.22 The A465 links Hereford with Abergavenny and the industrial heartlands of South Wales. There is a height restriction of 4.4m where the Hereford to Newport railway crosses the road south of Pontrilas. However, this will only restrict HGVs with double deck trailers, with typical curtain sided HGV trailers being 4.2m high. HGV flows on the A465 have been obtained from the latest DfT Traffic Count[6], from 2024. This highlights that there are 429 HGVs per day on the section between the B4348 and Southholme Road roundabout, which represents 6% of the Average Annual Daily Traffic. This is higher than the typical HGV flow on a local authority A Road, which is 3.5%[7].

2.7.23 Analysis of the DfT's count data on the A465 shows that the proportion of HGV's varies throughout the day with the proportion of HGVs in the morning being up to 12% of the total traffic flow.

2.7.24 In addition to the DfT data, two-way HGV count data for the month of September 2025 has been obtained for the A465 Belmont Road from Drakewell C2 Cloud, which is a web-based traffic data and monitoring platform which Herefordshire Council has access to. The count site is situated along the A465, south of the junction with Walnut Tree Avenue and north of the Great Western Way footbridge. Overall, a total of 450 HGVs were recorded travelling along Belmont Road over a 24-hour period, showing a similar amount to the volume recorded at the DfT count site.

2.7.25 There are key industries to the southwest of Hereford City Centre that transport freight along the A465, for example the Pontrilas Sawmills. The sawmills at Pontrilas have confirmed that they generate nearly 50 HGV movements daily with three quarters of those movements headed northbound on the A465. They also believe that contractors accessing the sawmills generates another 60 to 80 HGV movements daily.

2.7.26 Based on data from the April 2026 traffic survey, the daily total and proportion of traffic that is freight traffic (HGVs) across the study area is Table 2-7 and Table 2-8. Along Walnut Tree Avenue and Holme Lacy Road, HGVs account for around 3% - 4% of the overall weekday traffic. The proportion of traffic that is HGV during the AM and PM peak periods across the study is also shown in Table 2-7 and Table 2-8.

2.7.27 Generally, HGVs make up a larger proportion of overall traffic in the AM peak as opposed to the PM peak on both Walnut Tree Avenue and Holme Lacy Road. Almost 4% of westbound traffic along Holme Lacy Road is HGVs in the AM peak. Given the residential nature of these roads, with active travel facilities and sensitive receptors (such as a primary school) located along them, this represents a high proportion of HGV flows. The Phase One scheme will offer a suitable and alternative route for HGVs requiring access to and from the HEZ, which will reduce the need for routeing through the residential areas.

2.7.28 Likely as a result of the 7.5t weight restriction (except for access) along Walnut Tree Avenue, the vast majority of freight traffic along this road comprises OGV1 vehicles (smaller 2-axle rigid trucks with a weight of at least 3.5 tonnes).

[6] https://roadtraffic.dft.gov.uk/count-points/77343
[7] https://assets.publishing.service.gov.uk/media/6a0b81d0c510c3913d8267d4/tra4205-miles-england-by-road-and-vehicle-type.ods

Table 2-7: HGV Count and proportion data (Weekday average) - Walnut Tree Avenue

	12 Hour Total (count)		12 Hour Total (%)		AM Peak %		PM peak %	
Direction	OGV 1	OGV 2	OGV 1	OGV 2	OGV 1	OGV 2	OGV 1	OGV 2
Eastbound	89	13	3.3%	0.5%	3.5%	0.8%	1.8%	0.5%
Westbound	76	11	2.9%	0.4%	3.8%	0.5%	2.0%	0.6%

Table 2-8: HGV Count and proportion data (Weekday average) - Holme Lacy Road

	12 Hour Total (count)		12 Hour Total (%)		AM Peak %		PM peak %	
Direction	OGV 1	OGV 2	OGV 1	OGV 2	OGV 1	OGV 2	OGV 1	OGV 2
Eastbound	133	30	3.3%	0.7%	3.3%	0.8%	1.5%	0.4%
Westbound	218	48	3.5%	0.8%	3.6%	1.3%	2.0%	0.7%

2.7.29 The Phase One scheme will provide a more direct route for HGVs from the southwest to access the HEZ, which will reduce freight demand along Holme Lacy Road, Walnut Tree Avenue and the A465 Belmont Road (north of the junction with the Phase One scheme).

Journey Times

2.7.30 Journey time savings arise from shorter travel distances and reduced delays at heavily trafficked junctions. The Phase One scheme will help to reduce vehicle flows across residential areas in Belmont, helping to ease congestion in these areas.

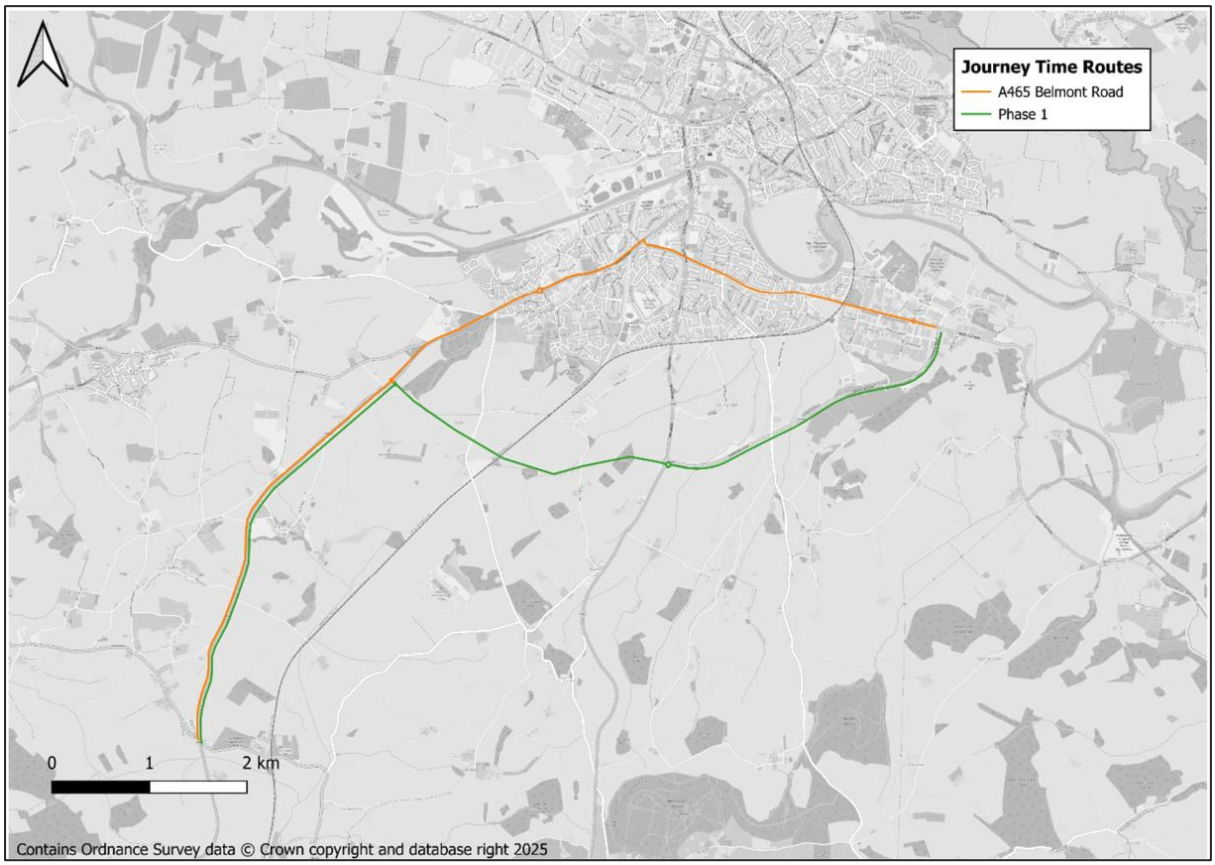
2.7.31 The design quality of Phase One will also reduce variability in journey times due to superior capacity and speed-flow characteristics. This is expected to yield measurable reductions in average journey times during peak periods.

2.7.32 As identified in Table 2-9 trips between A465 and HEZ, using Phase One and the adjoining B4399 (Gatehouse Road) receive an end-to-end journey time saving of approximately six and a half minutes in the 2043 design year. This is when compared to the existing commute route. Reduced journey times and variability in journey times is especially valuable for businesses and logistics, such as those located at the HEZ. The routes compared are visually shown in Figure 2-7.

Table 2-9: Design Year (2043) Journey Time Comparison: Phase One Scheme vs A465 Belmont Road

Direction	Route	AM Peak Time (mm:ss)	PM Peak Time (mm:ss)
Westbound	A465 Belmont Road	15:09	14:44
	Phase One Scheme	08:31	08:31
	Journey Time Savings	**-06:38**	**-06:13**
Eastbound	A465 Belmont Road	15:04	15:32
	Phase One Scheme	08:45	08:47
	Journey Time Savings	**-06:19**	**-06:45**

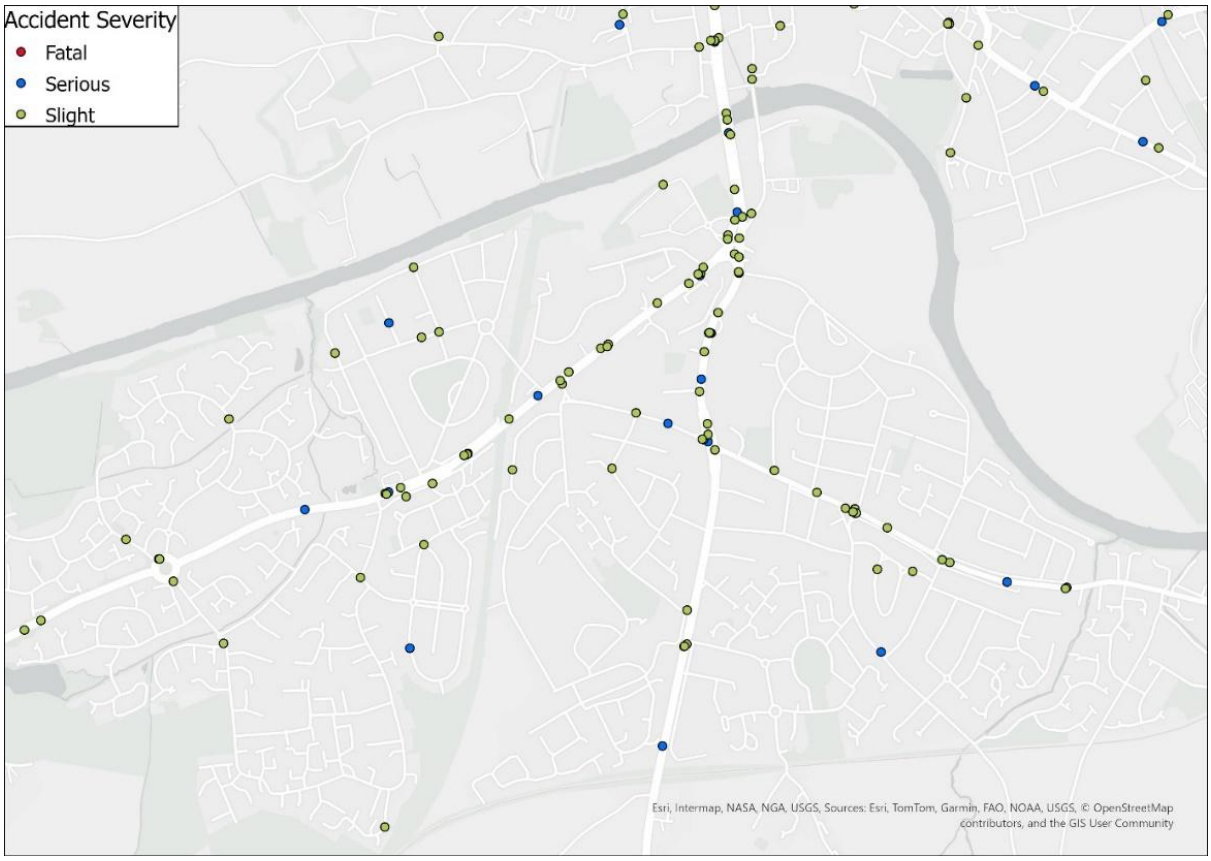
Figure 2-7: A465 and Phase One Journey Time Routes



Road Safety

2.7.33 Figure 2-8 shows collisions across Hereford that have occurred in the last five years between 2020 and 2024 (sourced from Herefordshire Council), including along Belmont Road and Holme Lacy Road and other minor roads such as Walnut Tree Avenue.

Figure 2-8: Collisions within the vicinity of the study area (2020-24)



2.7.34 There are a number of cluster locations where a particularly high number of collisions have been recorded, including at the A49/ A465 junction and the A49/ Holme Lacy Road junction. With the implementation of the Phase One scheme, this will provide a high standard of carriageway, designed to latest standards for accessing the HEZ, and will reduce demand along residential routes such as Belmont Road, Holme Lacy Road and Walnut Tree Avenue.

2.7.35 This in turn should reduce the number of collisions across the study area. This is supported by outputs from the COBA-LT assessment (described in further detail as part of the Economic Dimension). COBA-LT (Cost and Benefit to Accidents – Light Touch) is a cost-benefit analysis package available from the DfT in the form of a spreadsheet. It is used to forecast changes in the numbers of accidents and casualties associated with a change to the highway network.

2.7.36 Table 2-10 summarises the number of estimated casualties by accident type which forecasts an overall reduction of 9 collisions across a 60-year appraisal period. The reduction in slight casualties is likely due to traffic being diverted away from lower-speed roads within Hereford, while the small increase in fatal and serious casualties is likely associated with the introduction of the Phase One scheme operating at higher speeds.

2.7.37 It should be noted that the Area of Influence used to determine casualty savings in COBA-LT covers a much wider area than the area shown in Figure 2-8, and so the numbers presented in the table are not directly comparable with the map.

Table 2-10: Summary of casualty statistics

Description	Accident type	Number of accidents
Total Without Scheme casualties	Fatal	32.8
	Serious	411.0
	Slight	3460.5
Total With Scheme casualties	Fatal	33.9
	Serious	412.0
	Slight	3449.4
Total casualties saved by scheme	Fatal	-1.1
	Serious	-1.0
	Slight	11.1

2.8 Public Transport

Bus Services

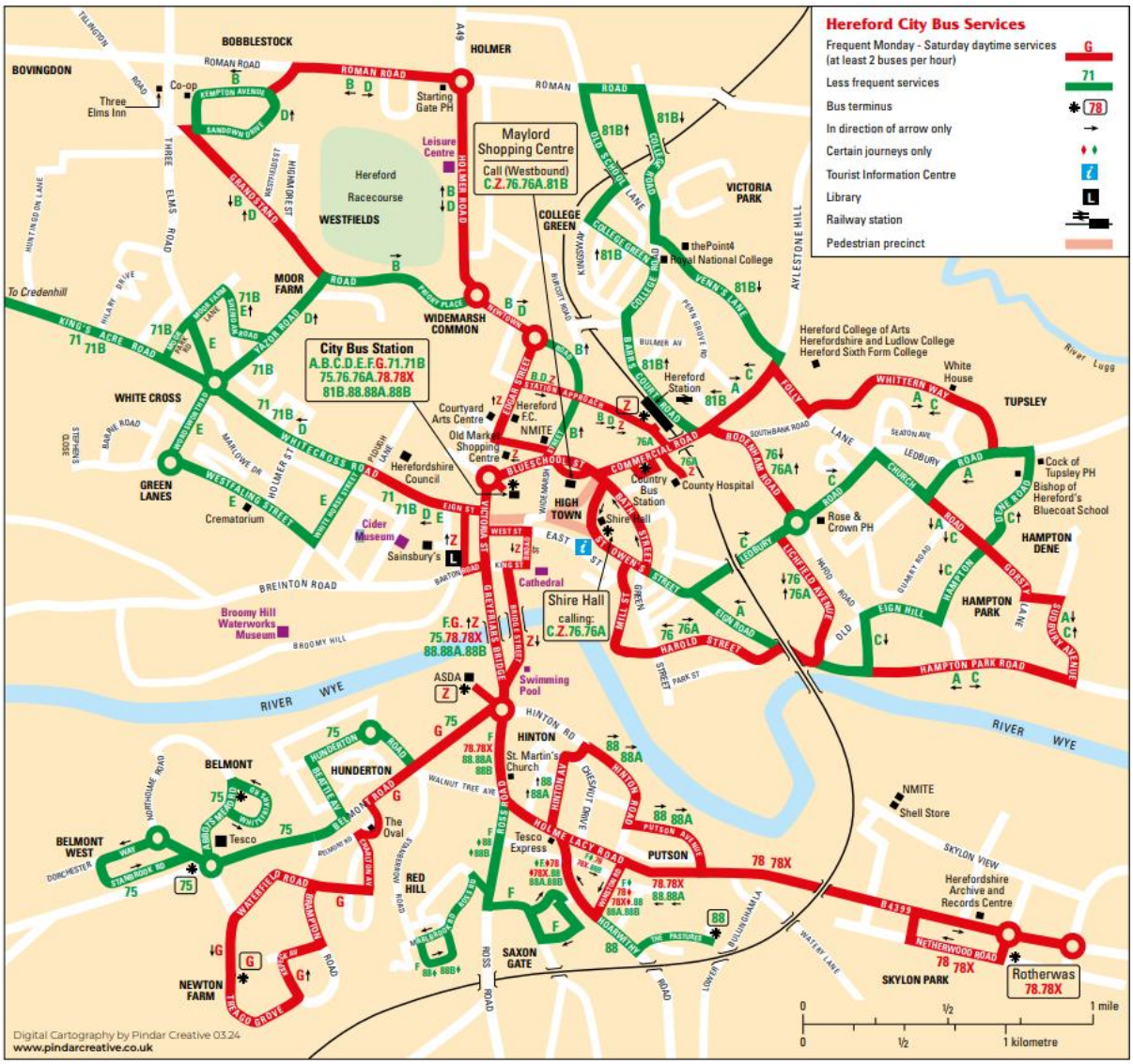
2.8.1 The Herefordshire Bus Service Improvement Plan (BSIP) 2024 identifies that only 43% of residents have access to an hourly bus service (in morning peak and early daytime off peak periods). Furthermore, this falls to only 8% of residents with access to services that run every 30 minutes.

2.8.2 Contrary to this however, buses are the most used form of public transport in Herefordshire, with 1.5 million trips made in 2023 and 2024, rising from 1.1 million in 2022 (Herefordshire Council – Local Transport Plan 5).

2.8.3 Figure 2-9 displays Hereford's bus services. The majority of bus services within Hereford are operated by various smaller, locally based operators such as Sargeants Brothers and Lugg Valley Travel and are low frequency services.

2.8.4 Some of the more frequent daytime services include the G service, which runs from Newton Farm to the City Bus Station via the A465 Belmont Road, continuing along the A49 at Belmont Junction and crossing Greyfriars Bridge. Additionally, the 78 and 78X routes link the city centre with the HEZ, travelling along the A49 south and Holme Lacy Road.

Figure 2-9: Hereford City Bus Services



Source: Hereford city bus map local services updated March 2024

2.8.5 Congestion in Hereford significantly impacts the reliability of local bus services. The Herefordshire BSIP identifies congestion within the city, particularly during peak hours, as a key factor causing unreliable journey times and weakened service frequency, which not only provides an unreliable service to passengers, but increases the operational costs, preventing further investment in additional services or journeys.

2.8.6 Indeed, as part of the BSIP, operators were asked to identify sections of road and junctions where delays to their services occurred. Figure 2-10 sets out these locations.

Figure 2-10: Pinch Point Locations in Herefordshire as Identified by Bus Operators



2.8.7 As highlighted in Figure 2-10, key congestion locations identified by bus operators include the A465 Belmont Road on the approach to the A49/A465 junction and A49 Ross Road at the junction with Holme Lacy Road. These are sections of the network which would be expected to experience a reduction in vehicular demand (and associated congestion) following implementation of the Phase One scheme which will provide alternative routeing choice for accessing the HEZ. This in turn would contribute to a more free-flowing network, reducing delays and improving reliability for operators in these locations and making the bus a more attractive mode of transport for users.

Rail Services

2.8.8 Rail connectivity across the county is limited with the closest railway station to the South Wye area being Hereford Railway Station which is located to the north of the city centre. There are no direct railway connections to the HEZ and it takes approximately a 56-minute walk from Hereford Railway Station to the employment sites.

2.8.9 Local rail connectivity is poor, and this is compounded further by there only being four railway stations located within the county. However, wider direct connections can be made to larger centres such as Cardiff, Newport, Shrewsbury and Manchester, as well as links to Birmingham and London via the Cotswold Line.

2.8.10 The feasibility of additional rail facilities across the county continues to be considered as part of the Local Transport Plan development process. A major scheme is currently underway to provide an Integrated Transport Hub at Hereford Station. Construction of the Transport Hub is currently underway, and it is expected to open in October 2026.

2.9 Socio-Economic Context

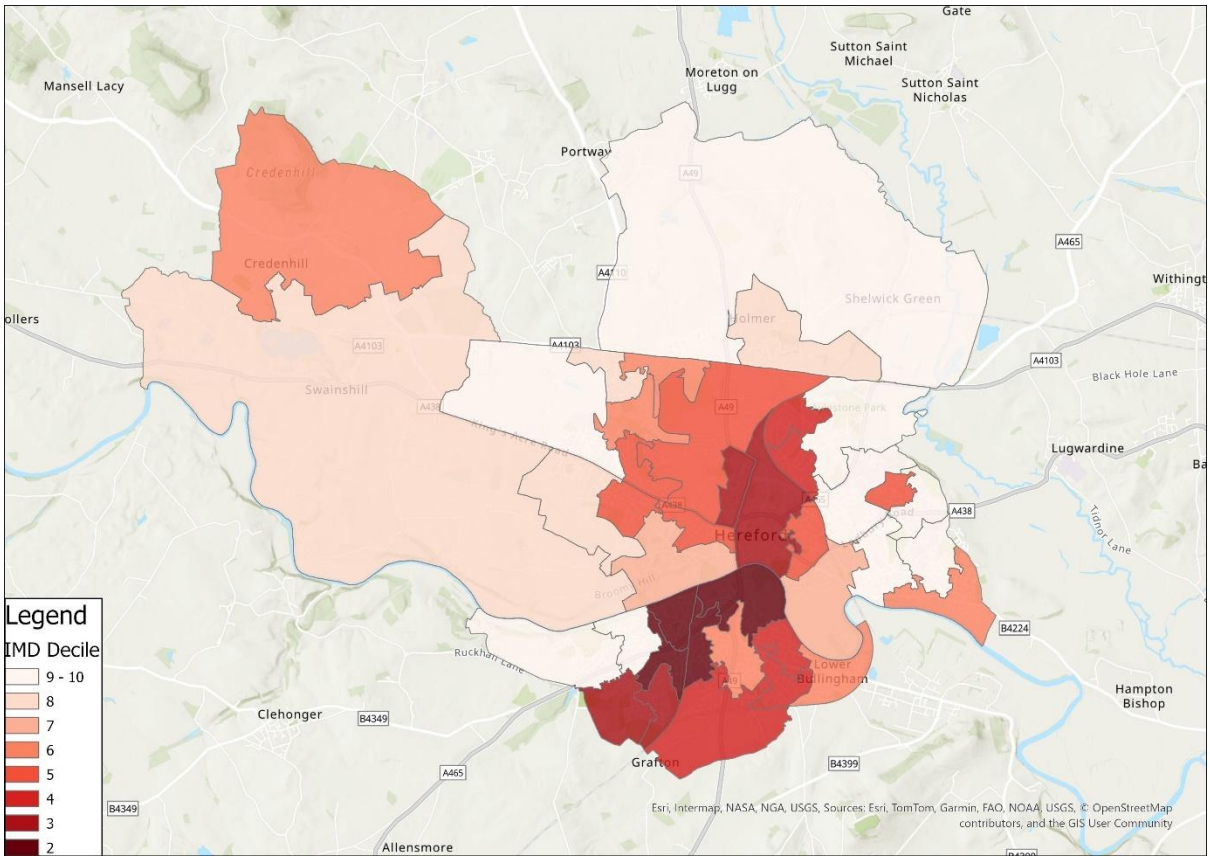
Deprivation

2.9.1 Table 2-11 presents the proportions of households deprived in 4 dimensions of deprivation: employment, education, health and disability and household crowding, based on data from the 2021 Census. Furthermore, Figure 2-11 displays the Index of Multiple Deprivation (IMD) 2025, which is a weighted combination of the seven domains: Income, employment, education, health, crime, barriers to housing and services and Living Environment. The IMD allows for the comparison of all identified UK small areas (LSOAs).

Table 2-11: Deprivation Dimensions

Deprivation	City of Hereford	Herefordshire County	England	South Wye Areas*
Household is not deprived in any dimension	47%	49%	48%	43%
Household is deprived in one dimension	35%	35%	34%	35%
Household is deprived in two dimensions	15%	13%	14%	17%
Household is deprived in three dimensions	4%	3%	4%	5%
Household is deprived in four dimensions	0%	0%	0%	0%

Figure 2-11: IMD Decile for LSOA's in Hereford



2.9.2 As shown in Table 2-11, while deprivation levels in Hereford are close to the national average, the South Wye area (which covers the location of the Phase One scheme) is considerably more deprived. Households in South Wye are 6% more deprived in one or more dimensions compared to the rest of the county, and 5% more than the national average. Furthermore, Figure 2-11 highlights that the LSOAs encompassing South Wye are the most deprived areas in Hereford. In particular, LSOAs covering Hunderton and parts of the A465 Belmont Road are in the second decile for IMD and are in the 20% most deprived areas nationally.

2.9.3 Phase One of the Western Bypass will reduce traffic flows through South Wye, in particular along the A465 Belmont Road, Walnut Tree Avenue and Holme Lacy Road having a positive local impact on the living environment. Improved access to the HEZ will also positively contribute to the Employment Dimension.

Community Cohesion

2.9.4 Issues such as rat-running, and congestion in South Wye can negatively impact upon community cohesion. As previously highlighted, the most direct and predominantly used route for commuter vehicles accessing the HEZ from the southwest is via Walnut Tree Avenue off the A465, which is an unclassified residential road with a school located along it.

2.9.5 ANPR traffic data collected during April 2026 confirms that vehicles travelling from the southwest along the A465 will route along Walnut Tree Avenue and on to Holme Lacy Road as opposed to travelling north along the A465 and south down the A49. According to the data, between 06:00 and 19:00 1,134 vehicles travel eastbound along Walnut Tree Avenue from Belmont Road to Holme Lacy Road while 1,258 vehicles travel westbound from Holme Lacy Road to Belmont Road via Walnut Tree Avenue.

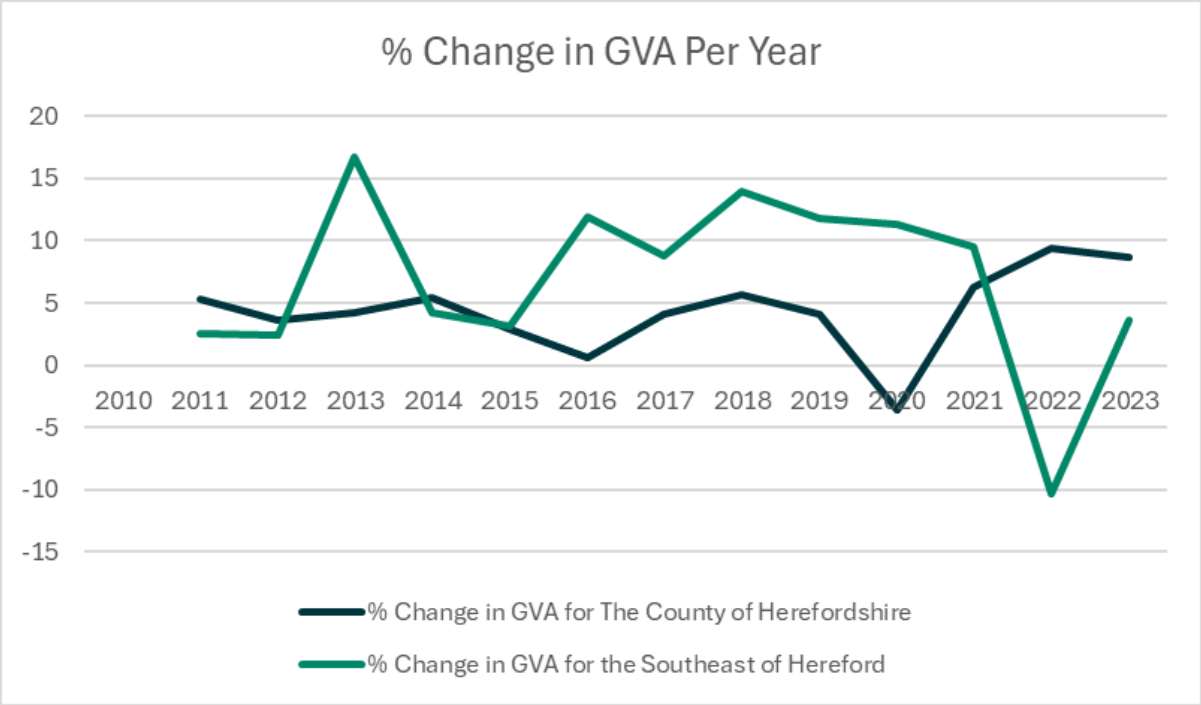
2.9.6 Using this road avoids vehicle users needing to use the congested A49/A465 junction but at the expense of community cohesion and quality of life for residents living along Walnut Tree Avenue and the adjoining Holme Lacy Road.

2.9.7 The Phase One scheme will provide a high-standard route between the A465 and A49, linking to the existing B4399, completing a route to the HEZ, that will separate vehicular traffic from residential routes which will positively impact upon community cohesion in the South Wye area.

Economic Growth

2.9.8 Figure 2-12 shows that while economic growth has recently levelled off across Herefordshire County, the Gross Value Added (GVA) in the southeast of Hereford (LSOA Herefordshire 021A), in the vicinity of the HEZ, rapidly grew between 2022 and 2023, therefore signifying economic expansion within this area.

Figure 2-12: Percentage Change in GVA



**Source: ONS-UK small area gross value added (GVA) estimates 2010 – 2023 for Lower Super Output Areas (LSOA). The number quoted is for the whole LSOA, which covers a large rural area as well as the HEZ.*

2.9.9 The Phase One scheme will provide improved connectivity to a growing area within Herefordshire, helping to further stimulate economic growth, and boosting opportunities for both businesses and people, as well as making the Rotherwas Industrial Estate, HEZ and surrounding areas more attractive for inward investment.

Key Industries

2.9.10 Table 2-12 shows the employment share by industry group by the City of Hereford, Herefordshire County, the Southeast of Hereford at Herefordshire 021A LSOA (in the vicinity of the Rotherwas Industrial Estate and HEZ) and England.

Table 2-12: Employment Share by Industry

Industry	City of Hereford	Herefordshire County	E01014026 : Herefordshire 021A	England
Agriculture, forestry and fishing	1.6%	5.4%	7.9%	0.8%
Mining and quarrying	0.1%	0.1%	0.2%	0.2%
Manufacturing	13.3%	10.9%	8.8%	7.3%
Electricity, gas, steam and air conditioning supply	0.4%	0.4%	0.3%	0.6%
Water supply; sewerage, waste management and remediation activities	0.7%	0.7%	1.1%	0.7%
Construction	8.9%	9.6%	9.4%	8.7%

Wholesale and retail trade; repair of motor vehicles and motor cycles	17.8%	15.8%	12.8%	15.0%
Transport and storage	3.0%	2.7%	2.6%	5.0%
Accommodation and food service activities	4.7%	4.5%	5.4%	4.9%
Information and communication	2.2%	2.8%	2.9%	4.7%
Financial and insurance activities	1.4%	1.5%	1.0%	3.8%
Real estate activities	1.2%	1.5%	2.0%	1.6%
Professional, scientific and technical activities	3.7%	5.2%	4.8%	6.7%
Administrative and support service activities	4.8%	5.3%	5.8%	5.3%
Public administration and defence; compulsory social security	6.3%	5.3%	6.7%	5.8%
Education	8.0%	8.6%	9.1%	9.9%
Human health and social work activities	17.9%	15.3%	14.7%	14.6%
Other	4.0%	4.4%	4.6%	4.6%

2.9.11 Manufacturing, wholesale, retail & repair, and health services are leading industries in Herefordshire County, whilst agriculture, manufacturing, construction, wholesale & retail, and health services are leading industries in the Herefordshire 021A LSOA in the southeast of Hereford.

2.9.12 Within the Enterprise Zone itself, the focus in on attracting new business from the following sectors:

- Defence and Security;
- Advanced Manufacturing and Engineering;
- Food and Drink Production; and
- Sustainable Technologies

2.9.13 A key facility on the Enterprise Zone is the Cyber Quarter which hosts the Midlands Centre for Cyber Security. This facility offers high quality research facilities through the University of Wolverhampton's Cyber Security Research Institute as well as providing office space for cyber businesses and advanced training facilities designed specifically to tackle threats in cyberspace.

2.9.14 This is a key growth sector for Hereford. The Defence and Cyber Security sectors boast exceptionally high labour productivity (GVA per employee) compared to the national average. The defence industry averages approximately £138,000 per employee, while the cyber security sector averages between £116,000 and £131,000 per worker [8].

[8] https://www.gov.uk/government/publications/cyber-security-sectoral-analysis-2025/cyber-security-sectoral-analysis-2025

2.9.15 Similarly, productivity in advanced manufacturing is high, with GVA per worker frequently exceeding £75,000. Recent companies expanding in the Enterprise Zone include TechTest Ltd, part of the HR Smith Group. Techtest specialises in the design and manufacture of search and rescue equipment, antennas and beacons for the aerospace industry. HR Smith Group invested £6m to create the new Techtest advanced manufacturing centre in Herefordshire that has created 50 jobs.

2.9.16 These examples highlight the benefits that employment in the HEZ area bring to both the local and national economy in terms of employment and GVA. Improving connectivity to the HEZ through delivering the Phase One scheme will make it a more attractive location for business to locate to and move convenient for attracting the high-quality workforce that is required.

Development Growth

2.9.17 In December 2024, the government updated the NPPF and the mandatory housing targets for the county, in which the new housing target for Herefordshire is approximately 27,500 dwellings together with 300ha of employment land over a twenty-year plan period. As a result of these changes, the council decided to cease further work on the Draft Regulation 18 Local Plan because a new spatial strategy is required to address the significant uplift in housing and employment growth.

2.9.18 The significant housing growth required across Herefordshire will likely need to include the development of larger sites. There is potential for new housing sites to be identified to the North, West and South of Hereford.

2.9.19 The new local plan is also expected to significantly increase the allocation of employment land, which will likely be in proportion to the increase in housing growth.

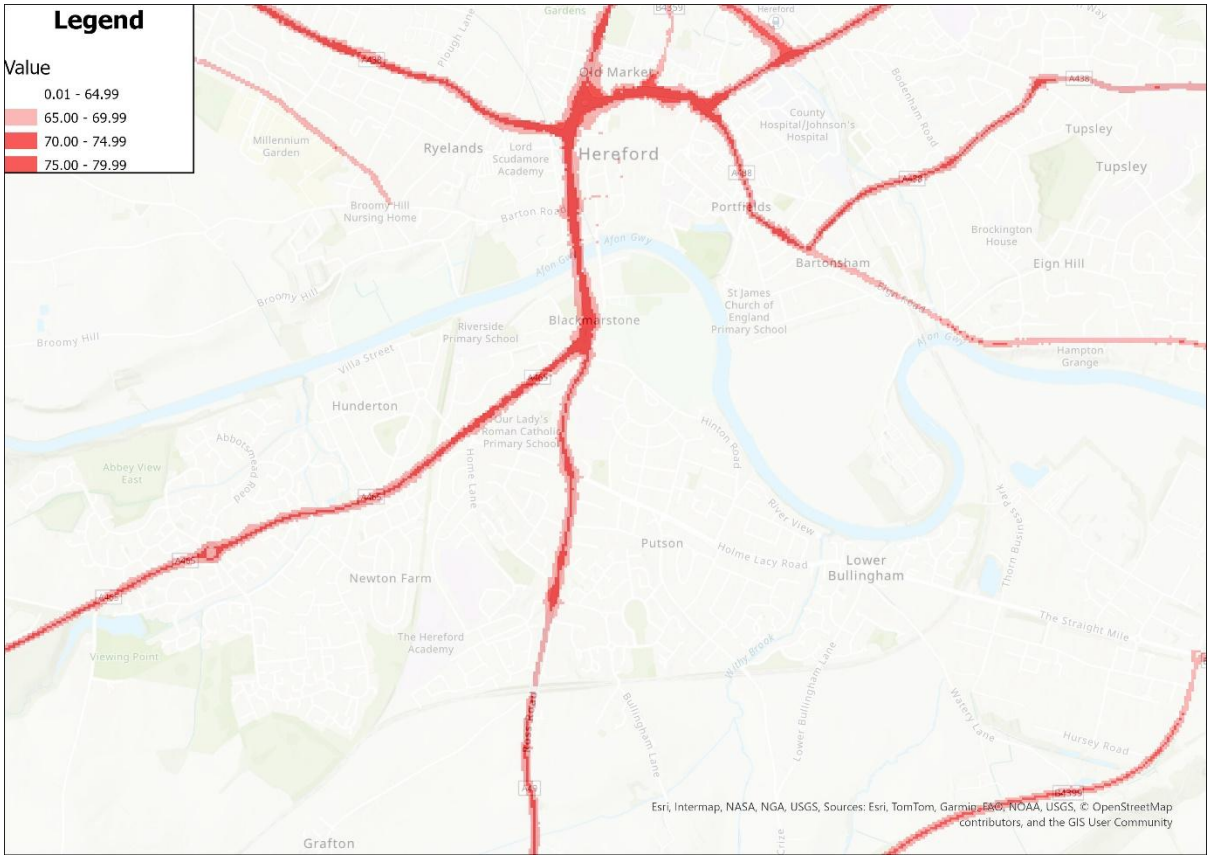
2.9.20 The Phase One scheme will provide improved access to any new housing and employment sites that are identified in the south and southwest of Hereford. This includes to the Lower Bullingham site, which is located to the east of the Phase One scheme and proposed to accommodate up to 540 homes and 5 hectares of employment as part of its first phase. As part of the wider Western Bypass, Phase One will also lay the foundation for providing the transport infrastructure required to support the mandatory housing targets for the county.

2.10 Environmental Context

Noise Pollution

2.10.1 The World Health Organisation identifies 65 Decibels (dB) as the threshold above which adverse health effects become more prevalent, including increased stress, sleep disturbance and reduced cognitive performance in children. Within Hereford, noise mapping data from the Department for Environment, Food and Rural Affairs (Defra) demonstrates that this threshold is exceeded – particularly along the A465 Belmont Road and the A49, south of River Wye, among other major connecting roads. The noise mapping from Defra is identified in Figure 2-13.

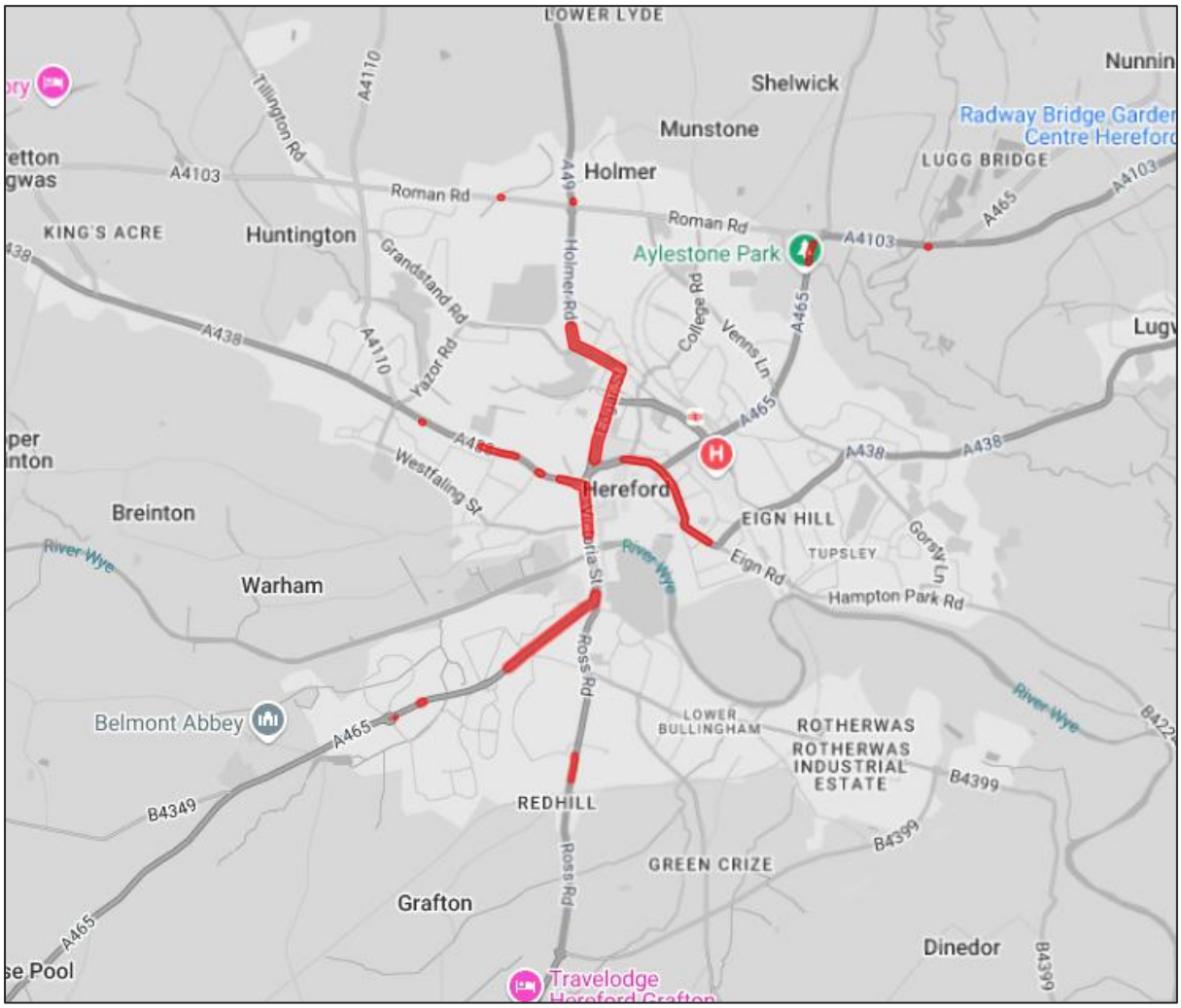
Figure 2-13: 24 hour annual average noise levels in decibels for roads greater than 65dB (Defra, 2021)



Source: Road Noise - All Metrics - England Round 4

2.10.2 Furthermore, Figure 2-14 currently demonstrates that four out of the five corridors leading into and out of Hereford have been identified as Noise Important Areas (NIAs), placing them in the noisiest 1% of roads in the UK. In particular, parts of the A465 Belmont Road have been identified as an NIA, notably the northernmost section of this route on the approach to the A49/ A465 junction.

Figure 2-14: Noise Important Areas in Hereford



Source: Extrium > England Noise and Air Quality Viewer

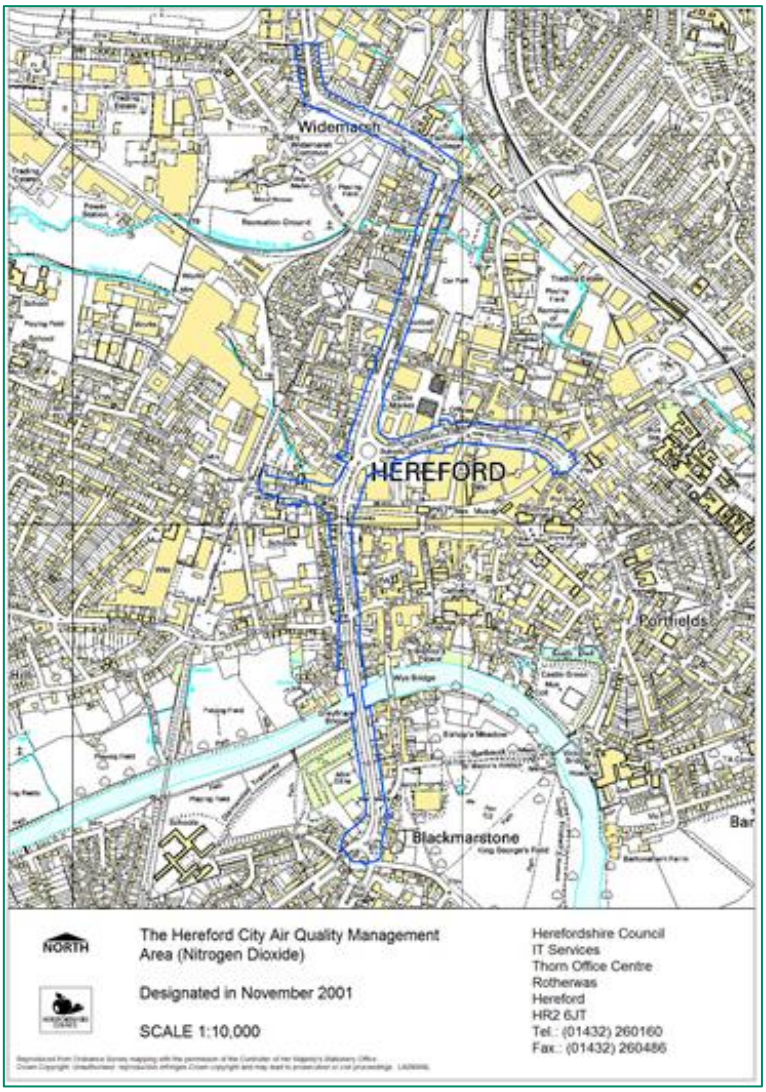
2.10.3 The Phase One scheme will redirect commuter traffic (including freight traffic which can be a significant contributor of noise) heading to the HEZ from A465 Belmont Road (north of its junction with the B4349), which will lead to a reduction in traffic and hence noise along this corridor. This would also have associated benefits to community cohesion, health and quality of life in the local area.

Air Pollution

2.10.4 Herefordshire Council continues to enjoy good air quality with no exceedances of the annual mean NO_2 objective. Herefordshire Council are in the process of revoking their Hereford AQMA as it has been compliant for over five years.

2.10.5 The Hereford Air Quality Management Area (AQMA) was declared in November 2001 due to elevated levels of nitrogen dioxide (NO_2), associated with vehicular traffic. The AQMA covers a corridor extending from Holmer Rd in the north to Belmont Rd in the south, continuing east along New Market and Blue School Street and west along Eign Street as far as Barton Yard. The extent of the Hereford AQMA is shown in Figure 2-15.

Figure 2-15: Hereford AQMA Extent



Source: AQMA Details - Defra UK Air - GOV.UK

2.10.6 NO_2 was the main pollutant of concern in Herefordshire, primarily originating from vehicle emissions. This was the key reason for designating the area an AQMA. However, in recent years the concentrations have fallen below the Air Quality Objectives, with concentrations below 10% of the objective (36 µg/m3) since 2020. Therefore, as set out in the 2026 Air Quality Annual Status Report, Herefordshire Council are beginning the process of revoking the Hereford AQMA.

2.10.7 Nonetheless, traffic levels in the city remain high and NO_2 and particulate pollution (PM_{10} and $PM_{2.5}$) can impact upon the development of the young and impact on the health of adults with respiratory illnesses. Removal of traffic that currently accesses the HEZ via the A465, A49 and Holme Lacy Road corridors as a result of the Phase One scheme, will help to further improve air quality in these residential areas.

2.11 Case for Change Summary

2.11.1 Based on a review of the key themes, the following problems and issues have been identified in relation to the study area:

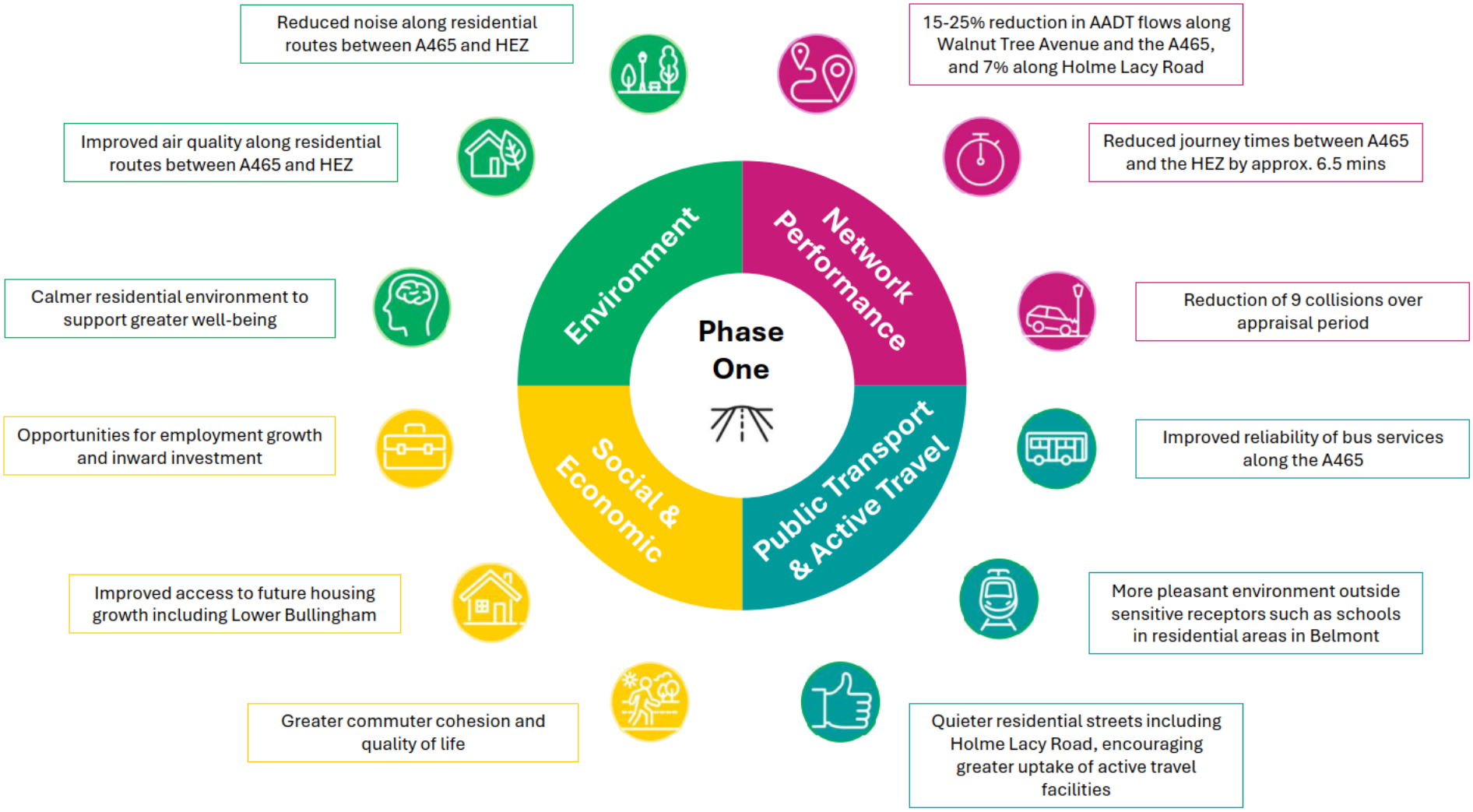
- The need for a more efficient and reliable road network, particularly in the context of high levels of car dependency across Herefordshire.

- Limited connectivity to the HEZ, resulting in traffic routeing along inappropriate rural and residential roads to access the site, a key example of this being recent ANPR data showing a key movement being the A465 – Walnut Tree Avenue – Holme Lacy Road.
- Journey time unreliability resulting in potential productivity losses and increased operating cost for commuters and HGVs travelling to the HEZ.
- Clusters of road collisions across the study area and an unattractive environment for active travel.
- Congestion leading to disruptions to the reliability of local bus services in South Wye.
- High traffic flows contributing towards social impacts such as high levels of deprivation identified within South Wye and negative impacts on community cohesion.
- Noise pollution along the A465 in South Wye.

2.11.2 These challenges reinforce the need for change and support the case for the Phase One scheme to come forward to deliver a range of environmental, safety, traffic, community and economic benefits across Hereford.

2.11.3 This Case for Change has highlighted a large number of benefits that the scheme will bring which are summarised in Figure 2-16.

Figure 2-16: Phase One Benefits Summary



2.12 Stakeholder Support

2.12.1 Alongside a clear Case for Change and need for intervention, there is also stakeholder support for the scheme.

2.12.2 Public and stakeholder engagement has taken place at various stages of the scheme development and is discussed in more detail as part of the Management Dimension.

2.12.3 In advance of submitting the planning application for Phase One in 2015, a public consultation on the South Wye Transport Package and Phase One scheme alignment was undertaken during a 6-week period between 1st July 2014 and 8th August 2014. Consultation responses indicated that traffic conditions in the South Wye area were problematic, with issues particularly concentrated along the A465 corridor and around the Belmont area. Overall, respondents expressed support for the scheme. The majority of respondents (56%) agreed with the proposal for the new link road and 95% of respondents to survey material agreed that traffic conditions in the South Wye area needed to be improved.

2.12.4 More recently, and as part of the Herefordshire LTP development process, an engagement exercise with stakeholders and the public was undertaken between March - May 2024. The key aims of the exercise was to understand participants priorities for transport, and improvements they would like to see to make travelling around the county easier, more reliable and sustainable.

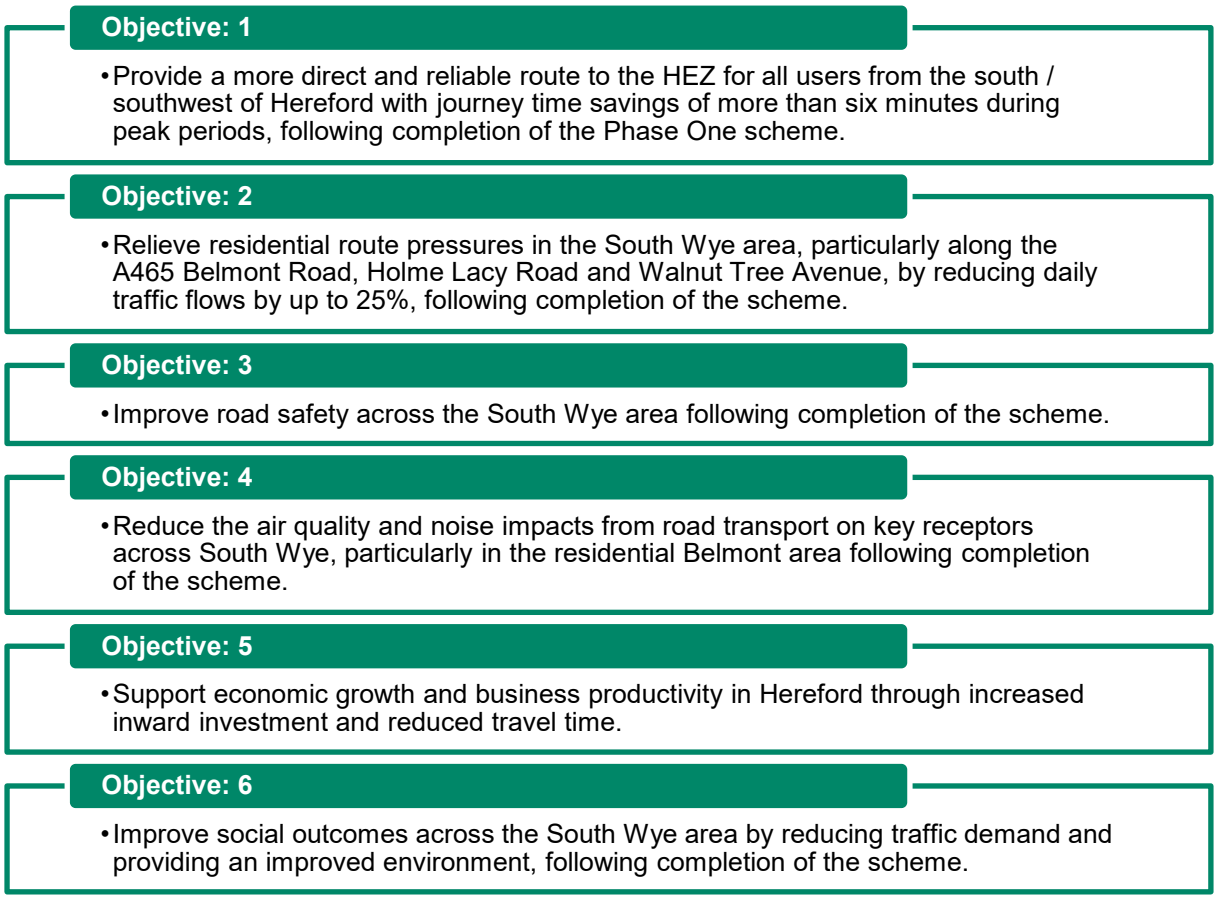
2.12.5 The online survey asked respondents to order a number of supporting actions against LTP Theme A: Supporting a thriving and prosperous economy. Of the 8 actions identified, providing a transport network with less delays came in at number 2 while building new roads such as a bypass came in at number 4. This highlighted concerns around delays and how new road infrastructure is deemed as a viable solution to resolve the issues.

2.12.6 Alongside this, Herefordshire Council has also received letters of support for the scheme from a number of key stakeholders, including National Highways and Hereford Enterprise Zone. This evidence of support is set out in Appendix B.

2.13 Scheme Objectives

2.13.1 A series of objectives were identified as part of the SWTP Option Assessment Report (OAR) (2019) for the scheme. These objectives have since been reviewed, taking into consideration the emerging priorities identified from the Case for Change analysis for the Phase One scheme. They have also been developed in such a way to ensure that they are SMART (Specific, Measurable, Achievable, Relevant and Time-Based). The updated objectives for the scheme are set out in Figure 2-17.

Figure 2-17: Scheme Objectives



2.14 Logic Map and Scheme Outcomes

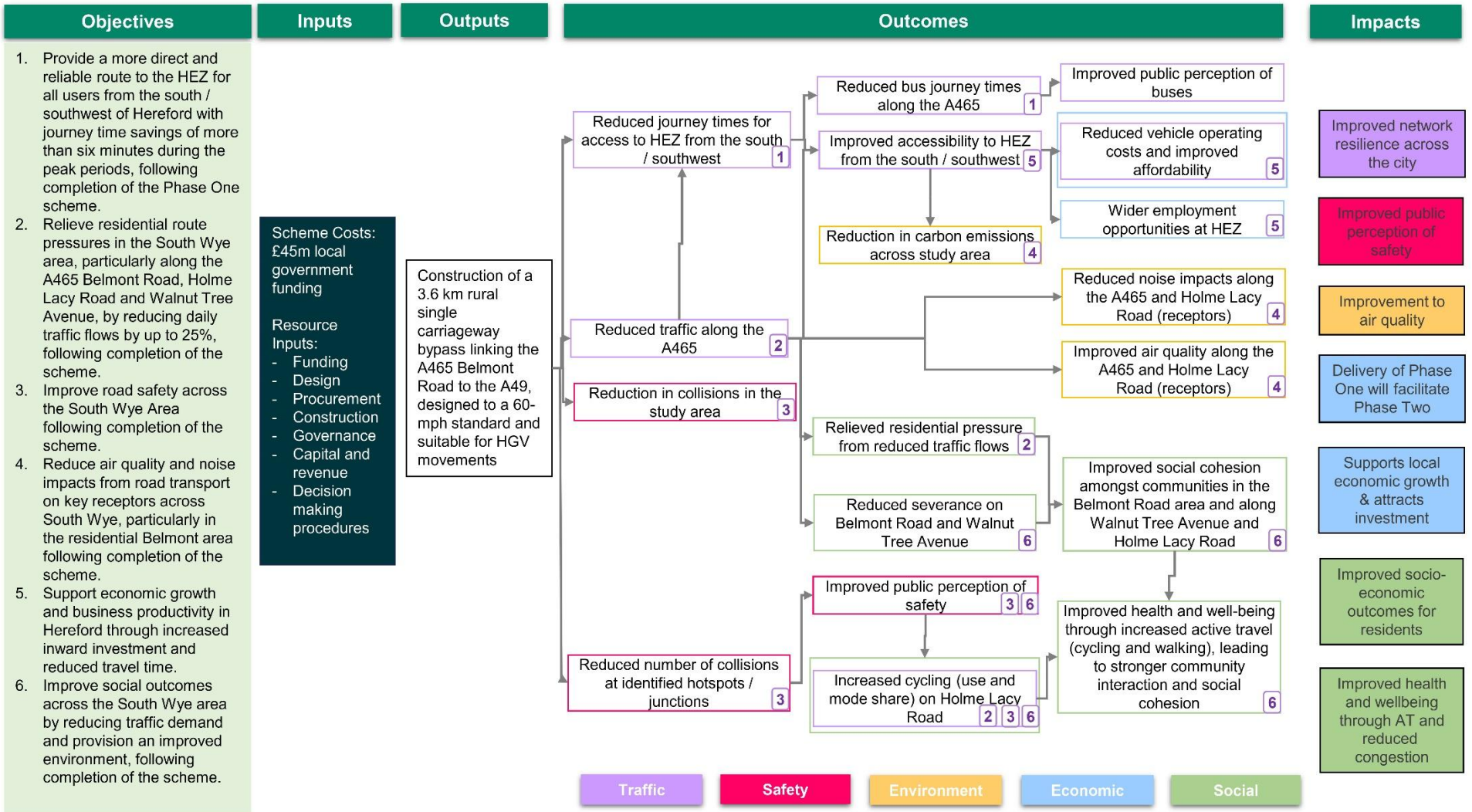
2.14.1 A Logic Map (LM) has been prepared for the scheme. This sets out the causal links between the inputs, outputs and the resulting outcomes and impacts of the scheme.

2.14.2 Outcomes are the short to medium-term effects of an intervention. Scheme outcomes will be monitored to assess whether the intervention is having the desired outcomes. This will be reviewed through the collection of primary and secondary data. The key outcomes relating to this scheme are set out in the LM (Figure 2-18).

2.14.3 The identified outcomes such as reduced journey times, improved accessibility to the HEZ and reduced traffic on sections of the network align with the transport strategy for the county as outlined in Herefordshire's LTP.

2.14.4 To assess outcomes and impacts of the scheme process, impact and value for money evaluations will be undertaken based on a combination of qualitative and quantitative data (as described in the Management Dimension).

Figure 2-18: Phase One Logic Map



2.15 Success Criteria

2.15.1 The measures of success aligned to the identified scheme objectives are set out in Table 2-13.

Table 2-13: Measures of Success

Objective	Success Criteria
1 - Provide a more direct and reliable route to the HEZ for all users from the south / southwest of Hereford with journey time savings of more than six minutes during the peak periods, following completion of the Phase One scheme.	• Delivery of a rural all-purpose single carriageway between the A465 and A49. • Reduced travel time to the HEZ from the south / southwest.
2 – Reduce traffic levels on inappropriate rural roads and in residential areas across South Wye, including the A465 Belmont Road, Holme Lacy Road and Walnut Tree Avenue, by reducing daily traffic flows by up to 25%, following completion of the scheme.	• Reduction in weekday traffic flows by up to 25% on key roads within South Wye and improved network resilience • Reduction in HEZ journeys travelling along in appropriate rural roads and residential areas including along the A465, Walnut Tree Avenue and Holme Lacy Road • Improved residential amenity by reduced traffic and opportunities for active travel • Improved bus journey time reliability along the A465.
3 - Improve road safety across the South Wye Area following completion of the scheme.	• Reduction in the number of collisions across the wider area as well as identified hotspots at the A49 / A465 Belmont Road Junction, the A465 / Walnut Tree Avenue junction and the A49 / Holme Lacy Road junction.
4 - Reduce air quality and noise impacts from road transport on key receptors across South Wye.	• Reduction in noise levels due to traffic re-routing to use the Phase One scheme. • Contribute to further local improvements in air quality through traffic re-routing to use the Phase One scheme.
5 - Support economic growth and business productivity in Hereford through increased inward investment and reduced travel time.	• Increased inward investment • Increased job hires at HEZ • Reduced journey times to and from Hereford's key employment areas • Improved journey time reliability for commuter and freight movements • Improved access to the proposed Lower Bullingham mixed use site
6 - Improve social outcomes across the South Wye area by reducing traffic demand and provision an improved environment, following completion of the scheme.	• Reduction in traffic along the A465 Belmont Road, Walnut Tree Avenue and Holme Lacy Road positively impacting on the local environment and road safety. • Reduced deprivation and improved quality of life in the Belmont area.

2.16 Constraints

2.16.1 Whilst there is a compelling case for the scheme, there are a number of constraints and dependencies which need to be accounted for as part of the delivery of the scheme.

Constraints

2.16.2 Table 2-14 sets out potential constraints associated with Phase One and how these are being navigated as part of scheme delivery.

Table 2-14: Key Constraints and Management Approach

Theme	Potential Constraint	Management of Constraint
Policy and planning constraints	Policy conflict between road-building and net zero targets	The scheme will reduce traffic flows on the A465 and Holme Lacy Road which will encourage modal shift through improved bus reliability along the A465 and a quieter, more attractive environment along Holme Lacy Road for active travel users. A Carbon Management Plan has also been developed which identifies a range of opportunities for carbon reduction as part of scheme design and construction (Appendix C).
	Lapsing of planning permission P151314/F	A nominal commencement of works took place in July 2019 comprising an approximate 150 m length section of the SLR and includes earthworks, road pavements and fencing. This nominal start of works secured the planning permission prior to it expiring, meaning that the permission remains valid.
	Planning conditions to be discharged	The pre-commencement planning conditions associated with application P151314/F were discharged, with conditions 6, 7 and 8 partially discharged to allow for the nominal commencement of works. Further detail will be required to support the full discharge of these conditions to enable works to commence on the remainder of the SLR. Further to this, other conditions previously discharged may need to be re-discharged due to the time lapse since the submission of the original discharge detail.
Environmental constraints	Environmental constraints associated with the scheme	An environmental impact assessment was carried out in support of the planning application and included mitigation measures to be incorporated into the design and construction of the Phase One scheme. Updated ecological surveys have been carried out in 2025 and 2026 and will inform protected species license applications. Mitigation method statements are being prepared to support the discharge of remaining conditions.

Theme	Potential Constraint	Management of Constraint
	European Protected Species hazel dormouse and great crested newts are confirmed to be present within the site.	European Protected Species Mitigation Licence (EPSML) applications are in the process of being drafted and will be sent to Natural England for approval. Additional EPSMLs or species licences may be required to support required mitigation works dependant on the results of on-going surveys, and will be applied for from Natural England accordingly. Mitigation works are seasonally constrained and cannot be carried out during hibernation season (approx., October-March).
	Loss of Ancient Woodland	To account for approximately 0.53 ha (1.3 acres) of habitat within Grafton Wood Ancient Semi-Natural Woodland (ASNW) is being lost as well as a small area of the front edge of Unnamed Woodland 2 ASNW, east of the railway). To help compensate for this 4.8 ha (11.86 acres) of species-rich woodland and woodland edge habitat will be created.
Physical and engineering constraints	Presence of utilities	Statutory undertaker surveys have been carried out, with four utility providers expected to be affected by the scheme, including Dwr Cymru / Welsh Water, Western Power Distribution, Cadent and BT Openreach. John Graham Construction Ltd (Graham) as the contractor for the scheme are now responsible for progressing the statutory undertaker diversions and associated liaison. Private water mains / land drains were not included within the original utilities searches and Graham / Bruton Knowles as the land agent will need to establish requirements as part of the landowner accommodation works and discussions.
	Interface with existing transport infrastructure	Significant and positive engagement has been carried out with Network Rail and National Highways in relation to obtaining relevant approvals for interfacing with their assets, including the requirement for a railway structure. Further information on the status of these approvals is set out as part of the Management Dimension.
	Unknown ground conditions	Extensive ground investigations were carried out to inform the scheme design, reducing the likelihood of unknown ground conditions being encountered.
Land and property constraints	The scheme requires acquisition of much of the land along its route, with only one parcel of land outside of the highway extents currently in HC ownership (approx. 10-15% of	The Council has been prioritising acquiring land voluntarily by negotiation through discussions with landowners (seven in total), which has been led by Bruton Knowles as the Council's property and land consultant. In December 2025, the cabinet agreed to proceed with undertaking Compulsory Purchase Orders (CPOs) in parallel with negotiations, supported by a draft Statement of Reasons.

Theme	Potential Constraint	Management of Constraint
	the total land required).	
	Rights of way and access	Accommodation works such as new field accesses are included within the supplementary planning application.
Financial and funding constraints	Budget availability to enable delivery of scheme	The Council has put in place capital funds from its own resources/borrowing to deliver the Phase One scheme, with the budget receiving S151 approval. Alternative funding sources are also being explored as detailed in the Financial Dimension. A Value Engineering (VE) exercise is underway to identify cost savings associated with scheme design and delivery.
Construction and operational constraints	Contractor availability	A Design & Build contractor has been appointed (John Graham Construction Ltd). Graham are currently working with the Council under a Pre-Construction Services Agreement (PCSA), which involves the contractor finalising the designs, resolving planning conditions, seeking temporary works planning applications and gaining approvals from third parties, along with confirming construction costs.
	Operational impacts during construction	Construction of the scheme is largely through agricultural land and therefore should cause minimal disruption. However, there will be some potential disruption along the A465, with the addition of the new roundabout. These impacts have been accounted for as part of the appraisal of scheme benefits/disbenefits in the Economic Dimension. A Construction Management Plan is also being developed which will further consider impacts
	Additional asset maintenance requirements	Maintenance of the new road will be carried out in line with the Council's Highway Maintenance Plan.
Organisational constraints	Availability of resource and staff	Key personnel for the delivery of the project are already in place and have significant experience of delivering complex highway projects. AECOM may continue to act as the Council's professional advisors through the delivery phases (to be confirmed at the time of this FBC submission).

2.17 Dependencies

2.17.1 While the Phase One scheme has planning permission, there still remain some dependencies which will need to be resolved prior to delivery, as outlined below.

Land ownership and CPO

2.17.2 The Phase One scheme requires the acquisition of much of the land along its route, with only one parcel of land currently within the council's ownership (approximately 10-15% of the total land required). The land required for the construction of the scheme is largely agricultural land and agreements are required with seven

landowners across the scheme extent. The land purchase is processing through a combination of negotiations and compulsory acquisition. A Compulsory Purchase Order (CPO) overview plan identifying and updating land boundaries in relation to the scheme has been developed.

2.17.3 The council's position is that it is aiming to secure all of the necessary rights and land ownership through negotiation. It is running the CPO process in parallel as a fallback position in case a negotiated agreement cannot be reached in all cases.

2.17.4 Relevant land negotiations and CPOs will need to be finalised before construction can commence on each parcel of land, and therefore this is a key dependency. At the time of the FBC submission in late May 2026, out of the seven affected landowners, Herefordshire Council have Heads of Terms out with two landowners.

2.17.5 Further detail on the land acquisition and CPO process being followed is set out in the Management Case.

Third Party Interfaces

2.17.6 Significant engagement with a range of third parties including National Highways, Network Rail and Natural England has been required in the progression of the Phase One scheme due to the significant interface that the scheme will have with infrastructure associated with these third parties. Whilst the scheme had previously been fully designed to a level that had received approval in principle by Network Rail and National Highways, the standards and approval processes utilised by both organisations have moved on and therefore there has been a need to resubmit the scheme for formal approval.

2.17.7 In the case of Network Rail, the scheme intersects with the Hereford – Newport Railway Line which is owned by Network Rail. The air rights above the railway line are being acquired to facilitate the construction of a bridge which will form the Phase One scheme. Herefordshire Council is working closely with Network Rail to ensure the design meets the legal requirements. Sign off and legal consent will be required before construction can commence.

2.17.8 Relating to National Highways, the scheme will connect with the A49/B4339 junction and the A49 is owned and managed by National Highways. Work is on-going to ensure the design and engineering of the scheme is in alignment with National Highways and DMRB standards. As with Network Rail, sign off and legal consent will be required before construction can commence.

2.17.9 In terms of engagement with Natural England, European Protected Species Mitigation Licence (EPSML) applications are in the process of being drafted and will be sent to Natural England for approval. This follows the detection of hazel dormouse and great crested newts at the study area. Both hazel dormouse and great crested newt are protected under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and under the Wildlife and Countryside Act 198. Additional EPSMLs or species licences may be required dependent on the results of on-going surveys and will be applied for from Natural England accordingly. These applications and suitable mitigation works will need to be undertaken in advance of the scheme being constructed. Further detail on the third-party interfaces is set out as part of the Management Dimension.

Planning Conditions

2.17.10 The planning application for Phase One was determined at planning committee on 6th June 2016, and the planning permission decision notice was issued on 18 July 2016. The planning consent is subject to 21 conditions, which are set out as part of the decision notice for the application.

2.17.11 For a planning permission to be implemented lawfully, all necessary pre-commencement planning conditions must be discharged prior to construction work commencing on site. The pre-commencement planning conditions associated with application reference P151314/F were discharged with conditions 6, 7 and 8 being partially discharged.

2.17.12 A non-material amendment application (reference P191223/AM) relating to conditions 17 and 18of planning permission P151314/F was approved on 27 June 2019. The non-material amendment was with regards to the pre-commencement requirement for the further design details pertaining to the section of the link road at the junction of the A49 trunk road, this amendment allowed the commencement of development prior to the discharge of conditions 17 and 18.

2.17.13 A nominal commencement of works was undertaken between 1 July 2019 and 18 July 2019 comprising an approximate 150 m length section of the SLR, earthworks, road pavements and fencing. This secured the planning permission before it expired and confirmation from the planning case officer was obtained to clarify this position.

Delivery of Phase Two

2.17.14 Whilst Phase One of the Western Bypass can be delivered in its own right and will bring a range of benefits as identified in the Strategic and Economic Dimensions, the full extent of benefits which the Western Bypass could deliver will not be realised until the delivery of the Phase Two component of the wider bypass scheme.

2.18 Risks

2.18.1 A bespoke risk register has been developed detailing scheme risks (including both pre-construction and construction risks) and assigning appropriate categorisation of risk, including cost/programme impact and likelihood, and ownership. This is a ‘live’ document throughout the scheme development and delivery process to ensure a thorough and dynamic understanding of risks. Where appropriate, the approach to risk management is to eliminate the risk or prepare relevant mitigation measures to manage and reduce the impact of the risk.

2.18.2 Risks have been identified, categorised and agreed between Herefordshire Council, AECOM as the Council’s technical partner and Graham Construction as the D&B contractor. The detailed Risk Register is set out in Appendix D. Further detail on the identification and management of risk is set out in the Management Dimension.

2.19 Equality Impact Assessment

2.19.1 An Equality Impact Assessment (EqIA) is a systematic assessment of the effects of the plans or policies on groups with protected characteristics as defined by the Equality Act 2010. As a public body, Herefordshire Council has a legal duty to pay due regard to the Public Sector Equality Duty (PSED) which aims to eliminate unlawful discrimination, promote equality and cohesion between different groups and advance equality of opportunity.

2.19.2 An EqIA has been prepared to consider the potential equality impacts of the Phase One scheme. The approach followed and detailed findings from the EqIA is set out in Appendix E.

2.19.3 The EqIA has considered the potential impacts of the scheme on groups with protected characteristics, informed by a review of baseline demographic data, relevant policy context, and the identification of potential construction and operational effects. It has also considered the latest position in relation to land

requirement, including the potential need for CPO and associated impacts in an equalities context.

2.19.4 The assessment identifies a combination of temporary adverse effects during construction and longer-term beneficial effects during operation, particularly in relation to improved connectivity, reduced congestion along key links and potential economic opportunities. However, there are also localised negative impacts, including potential negative impacts associated with loss of land if compulsory purchase becomes necessary, and some redistribution of environmental impacts (e.g. noise and air quality) to new areas.

2.19.5 In relation to the PSED under Section 149 of the Equality Act 2010, this EqIA provides evidence that Herefordshire Council has had due regard to the three statutory aims:

- **Eliminating unlawful discrimination, harassment and victimisation:** The assessment has identified potential disproportionate impacts on certain groups (such as older people, children and disabled people), particularly during construction and in relation to accessibility and safety. Appropriate mitigation measures (e.g. traffic management, maintaining access, and environmental controls) have been recommended to minimise these risks.
- **Advancing equality of opportunity:** The scheme has the potential to improve access to employment, services and healthcare – particularly for rural populations and those currently affected by congestion and poor connectivity. Consideration has also been given to the differing needs of protected groups, for example those with mobility impairments or increased reliance on public transport.
- **Fostering good relations between different groups:** Based on the assessment, no overall impacts in terms of relations between different groups are expected as a result of the scheme.

2.19.6 It demonstrates that equality considerations have been embedded within the design and assessment process and that potential adverse impacts have been identified transparently alongside mitigation measures.

2. Economic Dimension

Hereford Western Bypass

Phase One - Economic Dimension

Herefordshire Council

June 2026

Delivering a better world

Quality information

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1. Economic Dimension

1.1. Introduction

1.1.1. This section of the Full Business Case for Phase One of the Hereford Bypass sets of the Economic Dimension and provides an evidence-based assessment of the economic impacts of the scheme. Following this introductory section, it is structured as follows:

- The traffic modelling used to forecast impacts.
- Key assumptions and inputs used in the economic assessment.
- The scheme's monetised impacts (used to calculate the initial and the adjusted BCRs).
- Scheme costs.
- Analysis of the Monetised Costs and Benefits (AMCB).
- Distributional impact assessment.
- Sensitivity testing.
- Overall value for money and concluding statement.

1.1.2. The Economic Dimension is aligned with HM Treasury's (HMT) Green Book appraisal guidance and the Department for Transport's (DfT) Transport Analysis Guidance (TAG) requirements. It considers the economic, social, environmental and financial cost impacts, providing quantitative and qualitative assessments of the impacts of the project. This is used to determine the scheme's Value for Money (VfM) and whether the project's benefits outweigh the costs. More detailed information on the approach and results can be found in the Economic Appraisal Report (EAR) in Appendix F. The economic appraisal and assessment of the VfM of the scheme in this Economic Dimension can be broken down into the following steps:

- Estimation of the Present Value of Benefits (PVB), which gives the monetised value of the benefits of the project less any private sector contributions to project costs.
- Estimation of the Present Value of Costs (PVC) giving the net cost to the public sector of investing in the project.
- Calculation of a Benefit Cost Ratio (BCR) which gives the ratio of the PVB to the PVC and indicates a likely return to the public of investment in the scheme.
- Calculation of the Net Present Value (NPV) of the scheme (PBV – PVC).
- Sensitivity testing of both the benefits and costs to calculate the potential range of the PVB and the PVC and hence the likely range of the BCR.
- A VfM assessment, which considers both the BCR and any non-monetised or qualitatively assessed impacts, to determine whether the scheme represents a

valuable use of public resources in a way that creates and maximises public value.

1.1.3. The appraisal of the scheme considers a wide range of impacts which include journey time savings, operating costs, fuel impacts, accidents and other impacts. These are direct impacts on users of the highway network, both those on and in the vicinity of the scheme and users on the wider network. There are also indirect impacts which occur due to the scheme, which can be negative and positive impacts, and include environmental impacts such as noise, air quality and greenhouse gases amongst others.

1.1.4. These user and non-user impacts which can be appraised and monetised are referred to as Level 1 impacts in TAG. in-line with Green Book guidance, these are appraised over a 60-year period after the opening of the project and are re-based and discounted to 2023 prices and included in an initial PVB. Once the costs of the scheme are appraised and are also rebased and discounted to 2023 prices, these form the PVC.

1.1.5. Other less certain impacts can also be appraised and monetised, which include reliability benefits on the highway network and wider economic impacts. These benefits are less certain but can also be appraised and discounted in the same way as the initial benefits which form the PVB. These are referred to as Level 2 benefits. Once these have been added to the initial PVB, an adjusted PVB and BCR can be calculated which is used to inform the initial VfM category of the scheme. DfT VfM guidance gives the bandings which should be used to classify the VfM category of a project. Using the initial and adjusted BCRs, the values which correspond to the VfM categories are:

- Poor VfM – BCR between 0 and 1.
- Low VfM - BCR between 1 and 1.5.
- Medium VfM – BCR between 1.5 and 2.
- High VfM – BCR between 2 and 4.
- Very High VfM – BCR greater than 4.

1.1.6. Non-monetised impacts of the project are assessed which can include social impacts such as severance, active travel and other environmental impacts.

1.2. Transport Modelling

Herefordshire Strategic Transport Model

1.2.1. A key input to the appraisal process is the changes in travel time and demand brought about by the opening of the scheme. To estimate these changes in travel time and demand, a transport model has been used to test the scheme. This section provides a brief description of the transport model developed and used for the appraisal and provides a summary of the forecast impacts of the scheme.

1.2.2. The Herefordshire Strategic Transport Model (HSTM) was commissioned by Herefordshire Council. It consists of three interacting models: a highway assignment model, a public transport assignment model and a variable demand model.

1.2.3. The HSTM is an entirely new model covering all of Herefordshire, replacing the existing Hereford-focused Hereford Transport Model (HTM). The HSTM highway, public transport and variable demand models were developed to represent peak

hours within a typical weekday (Tuesday to Thursday) and Saturday in June 2023 from latest underlying data using the current guidance.

1.2.4. The model was developed to test the forthcoming Herefordshire Local Plan, to be suitable to assess transport network schemes and to provide an evidence base for potential business case submissions to the Department for Transport (DfT).

1.2.5. To support these applications, the HSTM has thus been designed to allow users to understand the existing provision and constraints on transport within Herefordshire, forecast the impact of proposed growth on the highway and public transport networks, and to develop and ass

1.2.6. ss policies and multi-modal transport schemes required to deliver the proposed level of growth.

1.2.7. The HSTM has been developed with reference to national guidance, particularly the DfT's Transport Analysis Guidance (TAG). It seeks to accord with this guidance where possible in all modelling principles, as well as using the guidance to obtain economic parameters (such as fuel prices and values of time).

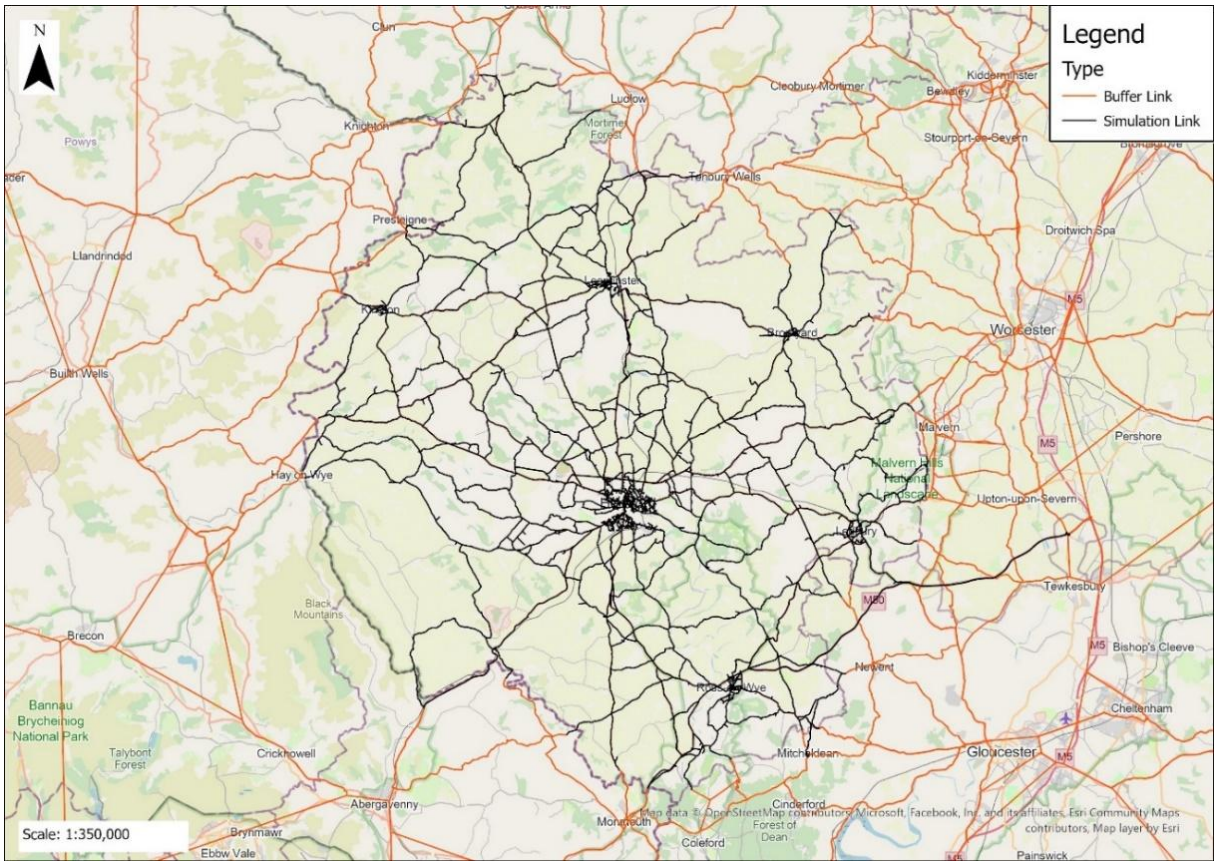
1.3. Forecast Scheme Impacts

Introduction

1.3.1. The scheme creates a new strategic link between the A49 and A465 south of Hereford, mainly improving local conditions by diverting traffic away from residential areas and in appropriate rural roads. It is the first part of a wider transport improvement package aimed at reducing congestion, improving journey time reliability, and enabling future growth within the city.

1.3.2. The scheme impacts were assessed using the HSTM aligned with current planning assumptions and DfT guidance. The modelling, which includes updated land-use data and committed schemes, confirms that the scheme continues to deliver positive traffic outcomes under current demand forecasts. For reference, the modelled highway network is shown below in Figure 1-1.

Figure 1-1: HSTM Highway Network



Contains Ordnance Survey data © Crown copyright and database right 2026.

1.3.3. The HSTM model includes the 2028, 2043 (design year) and 2061 future years for both Do Minimum and Do Something scenarios. The Do Minimum models contain all committed schemes for each corresponding year. Relative to the Do Minimum network, the Do Something model also includes the scheme coding, providing a new link road between the A465 and A49 to the south-west of Hereford city centre as illustrated in Figure 1-2. This new road is a 3.6km long section of rural all-purpose single carriageway, with a design speed of 60mph.

Figure 1-2: HSTM Do Minimum and Do Something Modelled Network



Traffic Flow and Speed Impacts

1.3.4. The modelling has shown that the introduction of the scheme alters routeing choices for both local and through-traffic. By providing an alternative east–west connection to the south of the urban area, traffic currently using constrained residential corridors and rural roads to the south of the city, is redistributed to the new link; particularly from Holme Lacy Road, Walnut Tree Avenue and the A465 (Belmont Road). Longer-distance trips are also redistributed onto the scheme from the B4348 to the south and the A438 North of the River Wye with a small reduction in river crossings through Hereford.

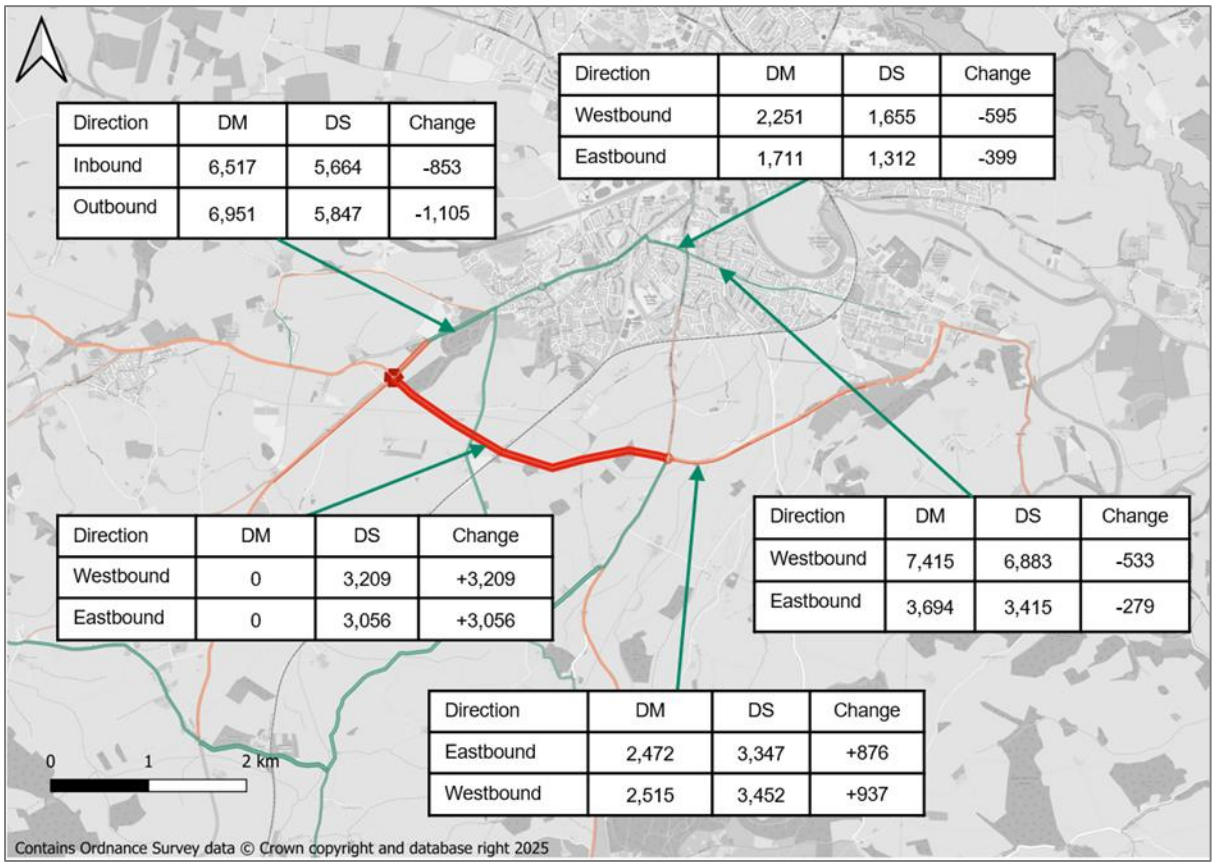
1.3.5. Across the network, the redistribution results lead to:

- reduced traffic volumes on sensitive urban and some rural routes;
- improved traffic speeds on key radial approaches; and
- increased resilience to incidents and peak-period congestion.

1.3.6. The scheme will lead to a reduction in peak-hour traffic flows on Walnut Tree Avenue, Holme Lacy Road, and the A465 in the 2043 design year. Figure 1-3 shows the Annual Average Daily Traffic (AADT) forecasts for key links. A reduction of about 2,000 vehicles (15%) is expected along the A465, almost 1,000 vehicles reduction (25%) along Walnut Tree Avenue and a reduction of over 800 vehicles along Holme Lacy Road (7%).

1.3.7. These reductions occur as traffic is diverted to the scheme rather than passing through residential areas in the South Wye area. This rerouting of traffic results in an increase in traffic flow on the B4399 of 937 vehicles (37%) westbound and 876 vehicles (35%) eastbound.

Figure 1-3: 2043 AADT Flow Difference (vehicles)



1.3.8. Network speeds on key links, as illustrated in Figure 1-4, are expected to be impacted by Phase One (A465 Belmont Road, Walnut Tree Avenue, Holme Lacy Road, and A49 Ross Road) and are shown in Table 1-1 for both the Do Minimum and Do Something scenarios in the AM and PM Peaks (improved speeds highlighted in green and similar speeds highlighted in amber and worsened speeds highlighted in red). The results show that Phase One generally improves local road speeds, with the most significant improvement observed on the A465 southbound in the AM Peak, where modelled speeds increase from 28 mph to 32 mph.

Figure 1-4: Road Sections for Speed Analysis

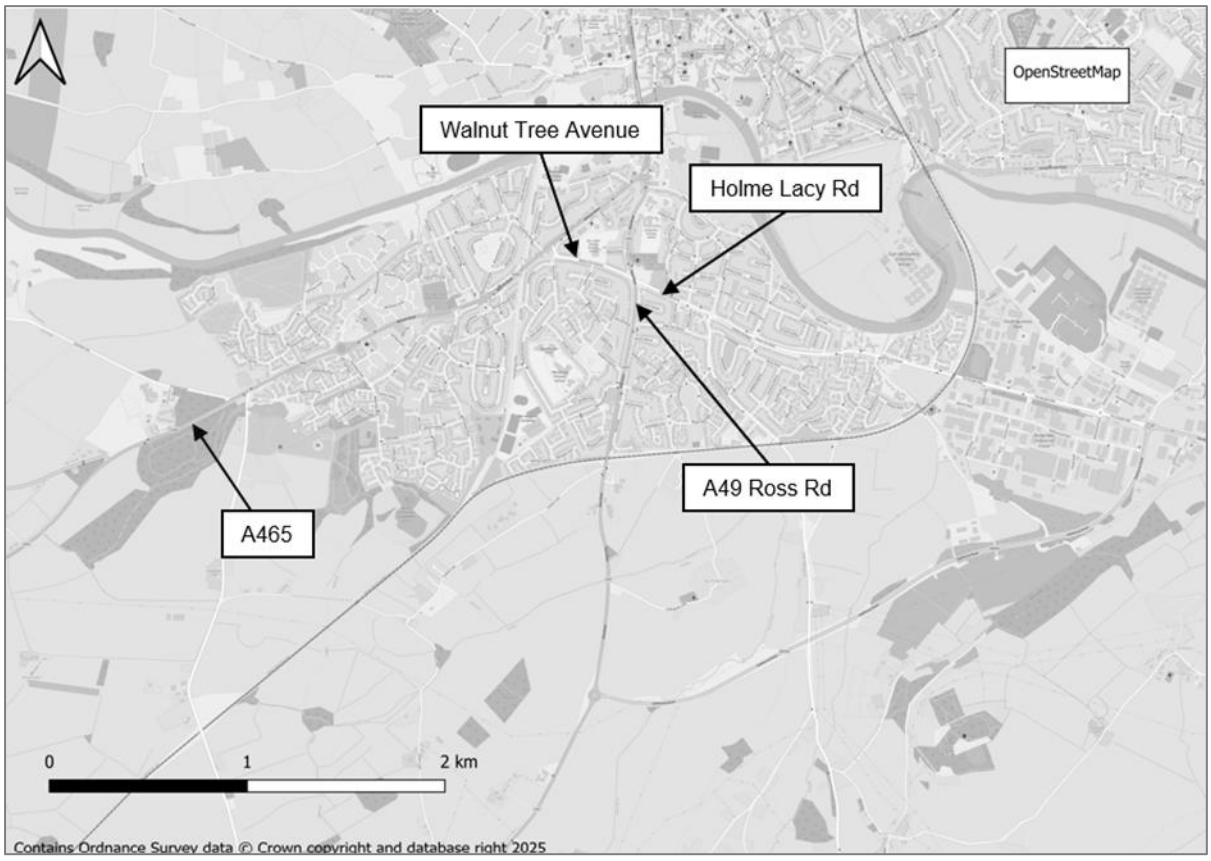


Table 1-1: Network Speed on Key Links

Link Location	2043 DM AM	2043 DS AM	2043 DM PM	2043 DS PM
A465 Northbound	31 mph	32 mph	29 mph	30 mph
A465 Southbound	28 mph	32 mph	30 mph	32 mph
Walnut Tree Avenue Westbound	18 mph	19 mph	19 mph	19 mph
Walnut Tree Avenue Eastbound	19 mph	19 mph	19 mph	19 mph
Holme Lacy Rd Westbound	20 mph	20 mph	20 mph	20 mph
Holme Lacy Rd Eastbound	16 mph	16 mph	17 mph	17 mph
A49 Ross Rd Northbound	20 mph	21 mph	23 mph	23 mph
A49 Ross Rd Southbound	23 mph	23 mph	22 mph	22 mph

Journey Time Impacts

1.3.9. Journey time savings arise from shorter travel distances and reduced delays at heavily trafficked junctions. The scheme will help to reduce vehicle flows across residential areas in Belmont, helping to ease congestion in these areas.

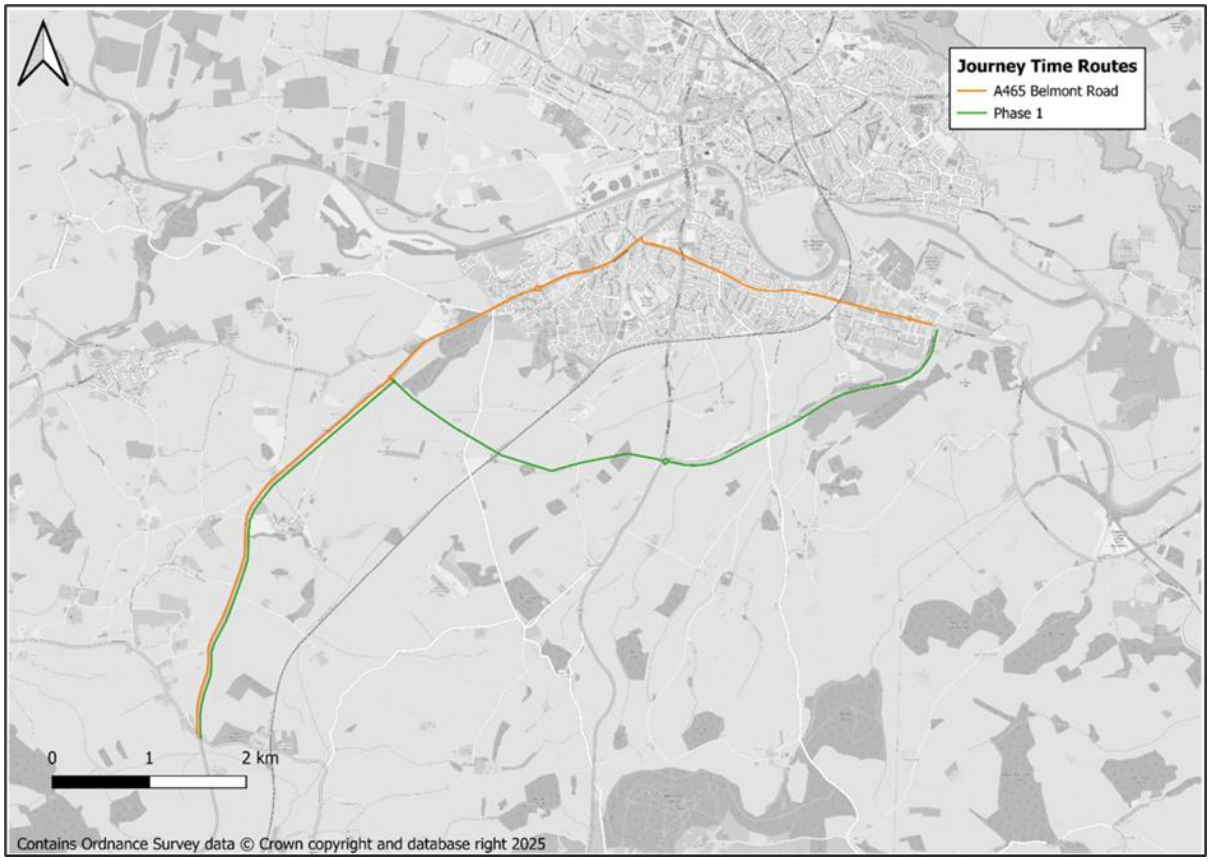
1.3.10. The design quality of the scheme will also reduce variability in journey times due to enhanced capacity and speeds. This is expected to yield measurable reductions in average journey times during peak periods, and to reduce the variability of journey times.

1.3.11. As identified in Table 1-2 trips between A465 and the Hereford Enterprise Zone (HEZ), using the scheme and the adjoining B4399 (Gatehouse Road) receive an end-to-end journey time saving of approximately six and a half minutes in the 2043 design year. This is when compared with the existing route via Belmont Road. Reduced journey times and variability in journey times is especially valuable for businesses and logistics, such as those located at the HEZ. The routes compared are visually shown in Figure 1-5.

Table 1-2: Journey Time Comparison: via the Scheme and A465 Belmont Road

Direction	Route	AM Peak Time (mm:ss)	PM Peak Time (mm:ss)
Westbound	A465 Belmont Road	15:09	14:44
	Phase One Scheme	08:31	08:31
	Journey Time Savings	**-06:38**	**-06:13**
Eastbound	A465 Belmont Road	15:04	15:32
	Phase One Scheme	08:45	08:47
	Journey Time Savings	**-06:19**	**-06:45**

Figure 1-5: A465 and Phase One Journey Time Routes



Overview of the Scheme Impacts

1.3.12. The forecasts demonstrate that the scheme delivers significant reductions in traffic volumes on congested residential and urban routes, particularly the A465, Walnut Tree Avenue, and Holme Lacy Road. The most notable change is an AADT reduction of ~1,100 vehicles on the A465 southbound, indicating that the scheme effectively diverts traffic away from sensitive urban corridors and reduces pressure

on critical junctions and river crossings. The scheme also diverts traffic from the B4348 to the south onto quicker and more direct routes.

1.3.13. The introduction of the scheme, a new east–west link south of the urban area, results in substantial journey time benefits, with savings of up to six and a half minutes during peak periods on key corridors, such as the route between the A465 and the Hereford Enterprise Zone.

1.3.14. Forecasts for 2043 indicate that the scheme will carry ~3,200 vehicles (AADT), with corresponding decreases in traffic on urban and rural routes. These reductions also provide opportunities to improve conditions for walking and cycling, particularly where complementary public realm and active travel measures are implemented, such as on Holme Lacy Road.

1.4. Key Assumptions and Approach

Introduction

1.4.1. This chapter summarises appraisal approach. in-line with TAG appraisal guidance, the assessment considered economic, social, environmental and fiscal impacts which have been assessed using quantitative or qualitative methods. Where it is possible to monetise impacts, these were consolidated to calculate a scheme BCR. However, the full range of monetised and non-monetised impacts are considered when assessing the overall VfM of the proposed scheme.

Key Impacts Considered

1.4.2. Table 1-3 provides a summary of the impacts evaluated and documented in this FBC. It includes a brief overview of the methodology applied, along with any relevant software used.

Table 1-3: Summary of Appraisal Methodologies

Impact being appraised	Description of methodology	Software used
Travel time benefits	• Economic benefits of the scheme come from savings in travel times to both business and consumer users. • Business users include car and LGV occupants travelling on employers' business along with HGV drivers. Consumer users (including commuters) include any non-business travellers in cars and LGVs. • Transport Economic Efficiency (TEE) benefits are derived from forecast travel time changes during construction and normal operation after scheme opening (compared with the 'Without Scheme' scenario). • Sensitivity testing was undertaken to reflect uncertainty in the model inputs around growth. in-line with recent guidance in TAG, selected Common	Appraisal conducted using TUBA software (v1.10.01) and the May 2026 data book assumption s

	Analytical Scenarios were used for sensitivity testing.	
Vehicle operating cost benefits	• Vehicle operating costs (VOC) estimated for all users. These occur due to changes associated with fuel and non-fuel costs. Non-fuel costs include items such as oil, tyres, vehicle maintenance and depreciation. • Factors affecting the VOCs are the speed and distances and how those change when the scheme opens.	Appraisal conducted using TUBA and the May 2026 data book
Accident benefits	• The safety impacts of the scheme were assessed and monetised. Changes in the number of accidents due to the scheme were estimated using standard accident rates by road type. • CoBA-LT compares accidents by severity (slight, serious and fatality) across the modelled network in the both the 'Without Scheme' and 'With Scheme' forecasts. • Accident benefits were monetised and form part of the initial BCR.	Assessed using DfT CoBA-LT software (version v2.10 released in April 2026)
Indirect tax	• Changes in indirect tax were calculated through a conventional transport user benefit appraisal. These impacts were estimated using the TUBA software and using the same demand (trips), distance and travel time skims as the user travel time benefits	Appraisal conducted using TUBA and the May 2026 data book
Greenhouse gases	• An assessment of Greenhouse Gas (GHG) emissions and a monetisation of this impact was undertaken. • Post-opening user emissions were estimated the DfT Vehicle Emissions Carbon Tool (VECAT). • GHG emissions during construction are currently being estimated.	Assessed using DfT VECAT (v1.01)
Construction impacts	• The costs to existing transport users due to disruption experienced during the construction stage. • Construction impacts are monetised and form part of the initial BCR.	Appraisal conducted using a bespoke spreadsheet and the May 2026 data book

Noise and air quality impacts	• Assessed in accordance with TAG using traffic data from the HSTM highway model.	TAG worksheets
Journey time reliability	• The change in journey time reliability was estimated based on the guidance contained within TAG Unit A1.3, Section 6.3 for urban roads. • Approach considered the ratio of assigned time within the highway model to the free-flow time as a measure of the standard deviation in journey times. • This was monetised using the same assumptions as adopted within the TUBA assessment of the scheme impacts.	Bespoke spreadsheet model
Wider economic impacts	• Wider impacts from generalised cost changes used the same modelled time and distance outputs as was used for the TUBA assessment. • To assess wider economic impacts, the DfT's WITA software or guidance in TAG Unit A2.1 and associated Unit A2.2 were used to calculate the impacts.	Assessed using DfT WITA v2.3 / TAG Unit A2.1

Transport model inputs to appraisal

1.4.3. The HSTM is a SATURN / EMME transport model which was developed to be able to test the impacts of the scheme. The highway assignment model was developed in SATURN software which is an industry standard software package. SATURN version 11.5.05N was used. Full details of the development, calibration and validation of the model are available in the "HSTM Local Model Validation Report".

1.4.4. The HSTM highway assignment model has a base year of 2023 and for the assessment of this scheme, three forecast years (2028, 2043, 2061). There are five modelled highway user classes:

- car commute;
- car business;
- car other;
- light goods vehicles (LGV); and
- heavy goods vehicles (HGV).

1.4.5. TUBA provides an assessment of benefits by journey purpose, split by vehicle type. The number and flow of vehicle types were taken from the HSTM highway model output. The TUBA assessment of the scheme was undertaken for 7 user classes, comprising:

- car business;
- car commute;
- car other;
- LGV (freight);
- LGV (non-freight);
- HGV (OGV1); and
- HGV (OGV2.

1.4.6. The TUBA appraisal requires trip, travel time and distance matrices to be defined for each user class, time-period and modelled year. Matrices were defined for both the 'Without Scheme' and the 'With Scheme' forecasts. These matrices were created by 'skimming' data from the forecast year assignments using the HSTM highway assignment model.

Appraisal Period and Assessment Years

1.4.7. In-line with TAG Unit A1.1, the economic assessment was conducted over a 60-year appraisal period after the opening year of the project. The opening year is assumed to be 2028; therefore, the appraisal period extends to the year 2087.

1.4.8. To assess the economic benefits arising over the life cycle of the scheme, three forecast years were developed in the traffic model. These three years are used to interpolate and extrapolate impacts over the 60-year appraisal period. For the scheme, the three forecast years are as follows:

- 2028 (scheme opening year);
- 2043 (design year); and
- 2061 (final modelled year).

1.4.9. The impacts of the scheme are based on the difference between the 'Without Scheme' and 'With Scheme' forecasts.

1.4.10. The benefits arising due to these changes are interpolated between each of the forecast years and extrapolated from the final modelled year of 2061 to cover the whole appraisal period. The extrapolation of the scheme benefits up to the year 2087 assumes zero growth in the magnitude of impacts after the final modelled year (2061), although growth is applied to the value of impacts, for example, to reflect forecast changes in values of time, as set out in DfT's data book, and impacts are discounted as explained below.

Annualisation Factors

1.4.11. The highway model contained within HSTM represents a morning (AM) peak hour, an average interpeak (IP) hour and an evening (PM) peak hour, as well as the busiest hours on a Saturday. Benefits generated in the modelled hours were annualised using annualisation factors, defined as the number of times each modelled hour occurs over a full year. These factors were based on analysis of traffic data. For the off-peak, demand was based on factoring the interpeak demand to those off-peak hours with similar flows and traffic conditions to the interpeak and which would be expected to have similar user impacts. Weekend hours are represented by the Saturday model data. The factors are summarised in Table 1-4.

Table 1-4: Annualisation Factors

Modelled hour	Period	Modelled hour to be factored to:	Factor
08:00-09:00 Weekday	AM	07:00 to 09:00	554
Average interpeak hour Weekday	IP	09:00 to 15:00	1,793
17:00-18:00 Weekday	PM	15:00 to 18:00	718
Average interpeak hour	Off-peak	Off-Peak	1016
1100-1200 Saturday	Saturday	Weekend & Bank Holidays	735

Price Base and Discounting

1.4.12. As described in the Green Book, there is significant evidence to suggest that costs and benefits which accrue now are considered to be worth more than those which accrue in the future (time preference).

1.4.13. In-line with TAG, and unless otherwise stated, all monetised impacts and scheme costs in the Economic Dimension are presented in discounted 2023 market prices.

1.4.14. A discount rate of 3.5% per year for the first 30 years after the current year (2026) and 3.0% per year for the remainder of the appraisal period was applied. project costs as well as benefits are treated in the same way.

1.4.15. User benefits in TUBA are already presented in market prices. scheme costs, as set out in the Financial Dimension, are in factor costs, and so are converted to market prices using the indirect taxation correction factor of 1.19, as well as converting to discounted 2023 real prices.

1.5. The Scheme's Monetised Benefits

Introduction

1.5.1. This section gives the results for each of the scheme impacts which have been appraised (see Table 1-3). Full details on the appraisal results are available in the "Economic Appraisal Report". This section summarises the scheme impacts in terms of transport user benefits, indirect tax, accidents, noise, air quality, greenhouse gases, construction impacts, reliability and wider economic impacts. When compared with the scheme costs these are used to calculate the initial and adjusted BCRs, as set out in Section 1.17 and Section 1.18 respectively.

1.5.2. The results presented here are for the 'Core' scenario. Results for other scenarios are presented in Section 1.20, which summarises the impact on scheme benefits and the BCR resulting from changes in key assumptions (sensitivity tests).

1.6. User Benefits

1.6.1. The Transport Economic Efficiency (TEE) benefits consist of travel time benefits and vehicle operating costs (VOC) expected to be realised due to the scheme.

1.6.2. The calculation of TEE benefits to road users was undertaken using TUBA (see Table 1-3) and TAG data book May 2026 (published December 2025).

1.6.3. TUBA compares journey times/ costs between the 'Without Scheme' scenario (Do Minimum) and the 'With Scheme' scenario (Do Something) to establish the value of the savings in road user travel times and vehicle operating costs. The results are set out in Table 1-5, split by trip purpose. There is a total of £65.7m in user benefits once the scheme is operational over the 60-year appraisal period, with 18% (£12.0m) of benefits accruing to commuters, 23% (£15.2m) to those on business trips (including freight), and 59% (£38.5m) to other users (e.g. trips for leisure, shopping or education).

Table 1-5: Discounted TEE Benefits by Purpose– Core Scenario, £000s 2023 Prices and Values

Trip purpose	Travel Time	Vehicle Operating Costs	Total
Non-Business: Commuting	£11,961	£47	£12,008
Non-Business: Other	£22,764	£15,734	£38,498
Business (Freight)	£9,571	-£1,204	£8,367
Business (Personal)	£7,378	-£702	£6,676
Total	**£51,674**	**£13,875**	**£65,549**

1.6.4. Table 1-6 shows the split in user benefits by purpose and vehicle type, and Table 1-7 shows the split by five modelled time periods. Freight Goods vehicles account for 13% (£8.4m) of total benefits. The largest total benefits (£21.3m) are in the interpeak (33%), with the AM and PM Peaks contributing 13% and 21% respectively, with the 14% attributable to the off-peak and 19% to weekends and bank holidays. These results are strongly influenced by the calculated annualisation factors (i.e. total demand over the total time period covered) in those periods.

1.6.5. Table 1-8 shows the forecast scheme benefits within the four time periods expressed on a per hour basis, i.e. excluding the effects of annualisation. This figure shows that forecast scheme benefits per hour are forecast to be highest in the morning and evening peaks, with the lowest levels of scheme benefits per hour forecast during the interpeak and off-peak periods with weekends in-between the morning and evening peak periods.

Table 1-6: Discounted TEE Benefits by Purpose and Vehicle Type– Core Scenario, £000s 2023 Prices and Values

Trip purpose	Private Cars and LGVs	Goods Vehicles LGV/OGV Freight	Total
Non-Business: Commuting	£12,008		£12,008
Non-Business: Other	£38,498		£38,498
Business	£6,676	£8,367	£15,043
Total	**£57,182**	**£8,367**	**£65,549**

Table 1-7: Discounted TEE Benefits by Time Period – Core Scenario, £000s 2023 Prices and Values

Scenario	AM	PM	IP	Off-peak	Weekend	Total
Core Scenario	£8,707	£13,914	£21,319	£9,130	£12,479	£65,549

Table 1-8: Discounted TEE Benefits per Hour – Core Scenario, £s 2023 Prices and Values

Scenario	AM	PM	IP	Off-peak	Weekend
Core Scenario	£263	£324	£199	£150	£284

1.7. Transport Economic Efficiency

Table 1-9: Transport Economic Efficiency (TEE) table, £000s 2023 prices and values

Non-business: Commuting	**ALL MODES**		**ROAD**	
User benefits	**TOTAL**		**Private Cars and LGVs**	
Travel time	£11,961		£11,961	
Vehicle operating costs	£47		£47	
User charges	£0		£0	
During Construction & Maintenance	£0		£0	
NET NON-BUSINESS BENEFITS: COMMUTING	£12,008	*(1a)*	£12,008	
Non-business: Other	**ALL MODES**		**ROAD**	
User benefits	**TOTAL**		**Private Cars and LGVs**	
Travel time	£22,764		£22,764	
Vehicle operating costs	£15,734		£15,734	
User charges	£0		£0	
During Construction & Maintenance	£0		£0	
NET NON-BUSINESS BENEFITS: OTHER	£38,498	*(1b)*	£38,498	
Business				
User benefits			**Goods Vehicles**	**Business Cars & LGVs**
Travel time	£16,949		£9,571	£7,378
Vehicle operating costs	-£1,719		-£1,175	-£544
User charges	£0		£0	£0
During Construction & Maintenance	-£187		-£29	-£158
Subtotal	£15,043	*(2)*	£8,367	£6,676
Private sector provider impacts				
Revenue	£0			
Operating costs	£0			
Investment costs	£0			
Grant/subsidy	£0			
Subtotal	£0	*(3)*		
Other business impacts				
Developer contributions	£0	(4)	£0	
NET BUSINESS IMPACT	£15,043	*(5) = (2) + (3) + (4)*		
TOTAL				
Present Value of Transport Economic Efficiency Benefits (TEE)	**£65,549**	*(6) = (1a) + (1b) + (5)*		

Notes: Benefits appear as positive numbers, while costs appear as negative numbers.

All entries are discounted present values, in 2023 prices and values.

1.7.1. The Transport Economic Efficiency (TEE) benefits consist largely of travel time benefits and vehicle operating cost benefits (for non-business travel) expected to be realised due to the scheme. The overall TEE benefits amount to £65.5m.

1.8. Indirect Taxation

1.8.1. Impacts on indirect tax mainly arise from increases or decreases in tax take from changes in, for example, fuel use. The scheme is expected to have a positive impact on indirect tax post-opening, with revenues accruing to Government increasing by £7.5m.

1.9. Construction Impacts

1.9.1. Construction is due to commence in December 2026, and it is expected that it will be completed in September 2028.

1.9.2. Due to the nature of the scheme, traffic management will be required at A465 Abergavenny Road and A49 Ross Road.

1.9.3. The contractor (John Graham Construction Ltd) will develop the construction traffic management plan during the pre-construction development phase. The contract includes specification documents prepared for the same works in September 2018. These documents were well developed, and it is reasonable to assume that the proposed traffic management requirements will be similar to those specified in the original contract.

1.9.4. Appendix 1/17 of the specification provided details of the traffic safety and management for the scheme.

1.9.5. The traffic management proposals including programme and layout will be submitted by the contractor for approval by Herefordshire Council. The traffic management requirements at the A49 roundabout will also require approval by National Highways.

1.9.6. The A465 roundabout will be constructed offline with the tie-ins to the existing highway network completed under temporary signal operation. Such works are likely to require single way working for four weeks at each tie-in. Thus, the A465 will operate under single way working for a total duration of eight weeks.

1.9.7. The existing A49 roundabout was designed to enable a fourth arm to be added on its western side to accommodate the new southern link road proposals. It is anticipated that these works will be completed by narrowing the carriageway width on the A49 northbound approach and exit to a single lane. However, the overall extent of works and depth of pavement construction will require approval by National Highways. If it requires additional pavement works on the circulatory carriageway further traffic management measures may be required. A temporary site access will be provided on the western side of the roundabout for the duration of the works. This will operate without disrupting regular traffic as the site traffic will effectively use the new fourth arm of the roundabout.

1.9.8. The Table 1-10 below is taken from the 2018 specification (the term ‘SCW NSL’ stands for single carriageway national speed limit).

Table 1-10: Extract from 2018 Specification

Highways, Private Roads and Other Ways Affected by the Works

Location	Predicted 24 Hour Annual Average Daily Traffic AADT	% HGVs	Use of route by Buses / Coaches	Average Speed of Cars MPH	Speed Limit MPH (if proposed, mandatory or advisable)	Type(s) of Traffic Control	Special Facilities (Pedestrian/ Equestrian)	Whether to be kept open or closed
A465 Abergavenny Road	20,623	4.62%	Yes	24.9	SCW NSL	Traffic Signals		To be kept open
A49 Ross Road	22,153	5.73%	Yes	25.3	SCW NSL	Subject to agreement with Highways England		To be kept open

1.9.9. There is a requirement for temporary traffic signals to be operated manually from 07:00-09:00 and 16:00-18:00 (Monday to Friday) to minimise disruption during peak hours. There is also a requirement that traffic shall be free flowing over bank holidays and that the contractor is to liaise with Herefordshire Council and National Highways to identify and accommodate special events.

1.9.10. The A49, A465 and B4349 Clehonger Road are used extensively by public transport. The Contractor will be required to liaise with the various bus companies and provide them with sufficient notice of any restrictions to enable them to make alternative arrangements for routeing their vehicles or relocating stops.

1.9.11. In the absence of a construction management plan at the time of writing, a spreadsheet assessment of the construction impacts on existing highway users have been undertaken.

1.9.12. This analysis has assumed no user delays at the eastern end of the scheme (A49 tie-in) and traffic management measures at the western end of the scheme (A465 tie-in). Following the discussion above, the following assumptions have been made for this western A465 tie-in:

1.9.13. A465 tie-in is assumed to occur during 2028;

- 24-hour AADT (2-way) of 6420, of which 207 is HGV (*derived from 2028 HSTM 'without scheme' forecast);
- 8-weeks of single-way working;
- average delay per vehicle of 2 minutes across the day;
- 2028 values of time derived from TAG May26 data book;
- journey purpose splits derived from TAG May26 data book; and
- 2028 value of time savings discounted to 2023 using a discount rate of 3.5%.

1.9.14. The result of this analysis is a net cost of **£0.187m** (**£0.029m** for HGV, **£0.158m** for light vehicles), expressed in 2023 prices and values.

1.10. Greenhouse Gases

1.10.1. The DfT's Vehicle Emissions Carbon Tool (VECAT) and the DfT's greenhouse gases TAG workbook have been used to estimate the greenhouse gas impact of the scheme. The methodology outlined in Department for Transport (DfT) Transport

Appraisal Guidance (TAG) Unit A3 has been followed in this assessment, alongside the use of VECAT.

1.10.2. The TAG greenhouse gases workbook is used to assess the monetary value of the impacts of proposed transport schemes on CO_2(e) emissions over a 60-year appraisal period.

1.10.3. To inform the assessment, traffic data were extracted from the HSTM (AM Peak hour, interpeak average, PM Peak hour, and weekend periods) for 'Without Scheme' and 'With Scheme' forecasts in the three forecast years (2028, 2043, and 2061).

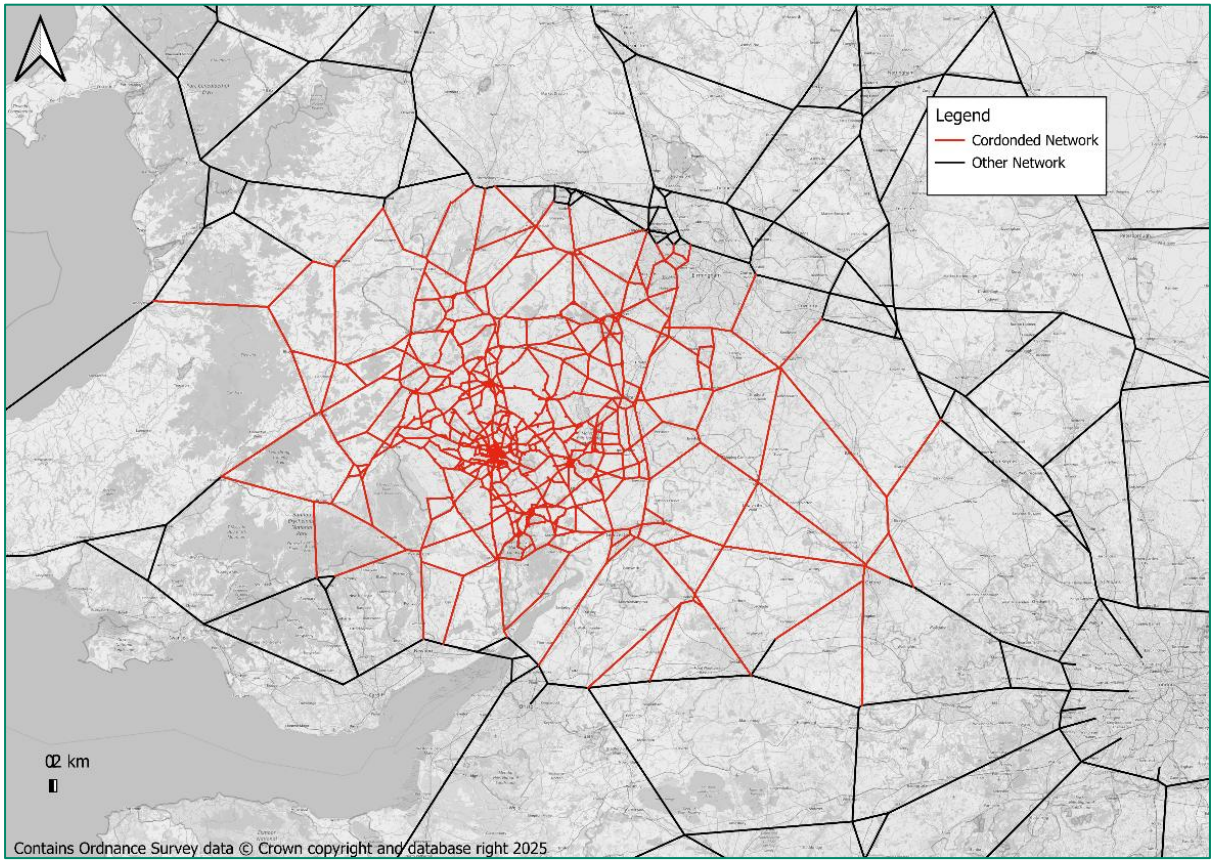
1.10.4. VECAT v1.01 was used in the estimation of CO_2(e) emissions for time period-flow traffic data for each modelled year, with and without the scheme.

1.10.5. VECAT provides CO_2(e) output for traded and non-traded emissions. In this instance, traded emissions are those associated with generating the power to charge electric and plug-in hybrid vehicles, and non-traded emissions are those associated with vehicle exhausts.

1.10.6. Changes in CO_2(e) emissions from the opening year (2028) to the end of the 60-year appraisal period with and without the scheme in place, for traded and non-traded emissions, were input into the Greenhouse Gases Workbook (November 2025).

1.10.7. To ensure that the emissions assessment captures the scheme's area of influence while excluding areas beyond its likely impact, a defined emissions analysis area was applied. This area, illustrated in Figure 1-6, includes the full simulation network and an extended buffer network.

Figure 1-6: Area of Influence (VECAT Assessment)



1.10.8. The CO2 equivalent emissions from VECAT have been imported to the DfT's greenhouses gases workbook. The results in Table 1-11 are summarised as follows, in 2023 prices, discounted to 2023, in market prices. Overall, the scheme is estimated to deliver a total reduction of 4,040 tonnes of CO_2e over the 60-year appraisal period compared with the Do Minimum scenario, of which 64.7 tonnes relate to traded emissions. This corresponds to a net present value of £0.865m for greenhouse gas impacts over the appraisal period. This benefit reflects the impact of Phase One, which shortens journey lengths for longer-distance trips and therefore lowers overall vehicle kilometres travelled relative to the Do Minimum (DM) scenario.

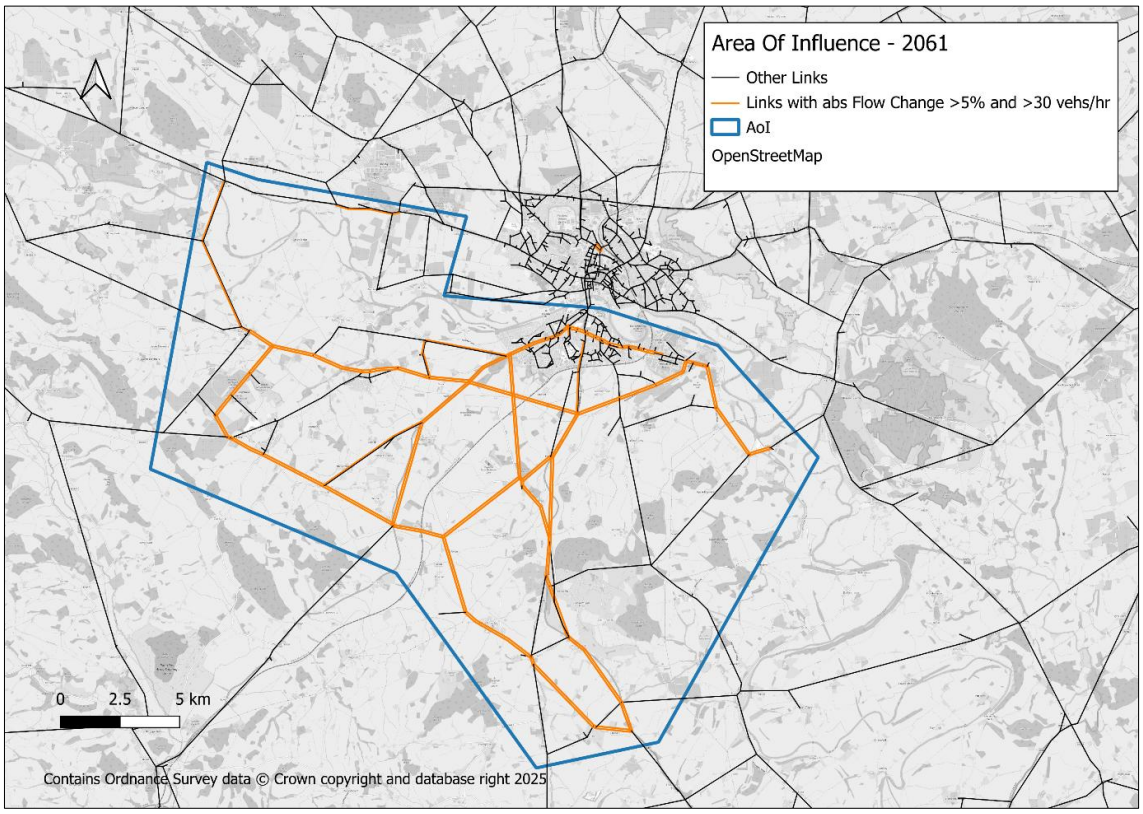
Table 1-11: Summary of Greenhouse Gas Impacts

Metric	Total
Change in $CO_2(e)$ over 60 years (tonnes)	-4,040
Of which traded (tonnes)	-64.7
Change in $CO_2(e)$ in 2028 (tonnes)	-260
NPV of greenhouse gas impact over 60 years	**£864,905**
Upper estimate of NPV	£1,298,433
Lower estimate of NPV	£431,631

1.11. Accident Impacts

1.11.1. For the assessment of accident impacts, CoBA-LT (Cost and Benefit to Accidents – Light Touch) v2.10 was used. It forecasts changes in the numbers of accidents and casualties associated with a change to the highway network and monetises those impacts over the 60-year appraisal period. The assessment was undertaken on the highway network within the scheme's Area of Influence, as shown in Figure 1-7. in-line with TAG Unit A4.1 Social Impact Appraisal national average accident rates were used.

Figure 1-7: Area of Influence (Accident Assessment)



1.11.2. Table 1-12 summarises the number of estimated casualties by accident type. While the total number of accidents is approximately the same for the Without and With scheme forecasts, there is an increase in the severest accidents (fatal and serious). The reduction in slight casualties is likely due to traffic being diverted away from lower-speed roads within Hereford, while the small increase in fatal and serious casualties is likely associated with the introduction of the scheme operating at higher speeds.

Table 1-12: Summary of casualty statistics

Description	Accident type	Number of accidents
Total Without Scheme casualties	Fatal	32.8
	Serious	411.0
	Slight	3460.5
Total With Scheme casualties	Fatal	33.9
	Serious	412.0
	Slight	3449.4
Total casualties saved by scheme	Fatal	-1.1
	Serious	-1.0
	Slight	11.1

1.11.3. The scheme is forecast to generate accident disbenefits of £1.009m (Table 1-13). These accident disbenefits are associated with the higher economic weighting applied to fatal and serious casualties; the total number of casualties reduces as an impact of the scheme, with traffic removed from Hereford, but this is at the cost of an additional serious and fatal injury in the area of influence over the 60-year appraisal period.

1.11.4. It should be noted that this is a technical outcome of the methodology used within CoBA-LT, which calculates the product of vehicle-kilometres travelled and standard national accident rates, rates which increase in severity above 40mph. Therefore, by adding a new stretch of 3km road with the national speed limit, which will also draw in traffic into the area of influence as a result of the scheme, the modest increase in more serious casualties as a result of the scheme is not unexpected.

Table 1-13: Summary of accident appraisal, £000s 2023 prices and values

Description	Value
Total Without Scheme accident costs	247,128
Total With Scheme accident costs	248,137
Total accident benefits saved by the scheme	-1,009

1.12. Noise Impacts

1.12.1. Major (>=5 dB) increases in road traffic noise are expected at receptors in close proximity to the scheme; this impacted area is however sparsely populated.

1.12.2. Despite being close to the scheme, receptors along Haywood Lane are expected to experience a minor decrease in road traffic noise. This is due to fewer vehicles using this road with the scheme constructed.

1.12.3. Major decreases in road traffic noise are expected along the closed section of the B4349. Reductions in traffic noise are also expected along Belmont Road, Walnut

Tree Avenue and Holme Lacy Road. However, the scale of these reductions falls below the threshold to be included in the economic analysis of this impact.

1.12.4. Due to the introduction of the scheme minor increases in road traffic noise are expected along the B4349 between the scheme and Clehonger. These changes are just above the threshold to be included within the economic analysis of this impact. The minor noise increase continues from Clehonger along the B4352 into Madley. From Madley minor increases in road traffic noise are expected along Bage Pitch Road up to the A438. This is due to rerouting of traffic which would have otherwise used an existing route prior to scheme opening.

1.12.5. These existing routes from where traffic has been diverted are expected to experience minor decreases in road traffic noise. From east to west these are as follows:

- roads through Callow and Portway off Haywood Lane;
- the road connecting Haywood Lane to the B4348;
- the B4348 from this junction to St Bartholomew's Church, Thruxton;
- B4348 between Blackthorn and the junction with the B4349; and
- Stone Street Between Blackthorn and the B4352.

1.12.6. The following numbers of households are forecast to experience material changes in noise with the scheme in place with the scheme delivered, in the design year of 2043.

- 290 households experience increased daytime noise;
- 226 household experience reduced daytime noise;
- 74 households experience increased nighttime noise; and
- 129 household experience reduced nighttime noise.

1.12.7. The monetised impact of the change in traffic noise was calculated using the relevant TAG workbook (based on guidance produced by Defra on assessing the impacts of transport related noise from different sources). This resulted in a net benefit of £0.960m in discounted 2023 prices and values.

1.13. Air Quality Impacts

1.13.1. The air quality study area is located within Hereford. Herefordshire Council has declared two air quality management areas (AQMAs) for exceedances of the NO2 annual mean objective, one of which is in the city of Hereford (as described in the Strategic Dimension). However, the scheme is located outside these, located approximately 2.5 km from the closest AQMA (Hereford AQMA). The nearest monitoring site to the scheme reported an annual mean NO2 concentration of 20.3 µg/m3 in 2024. This is diffusion tube site 79, which is located approximately 2.3 km to the north of the scheme, at a roadside location on Belmont Road in Hereford. The scheme is located in a rural area to the south of Hereford, meaning that monitored concentrations are therefore likely to be lower than those reported at the nearest monitoring site. It is also worth noting that Herefordshire council are in the process of revoking the AQMA within Hereford as the NO2 concentration levels have been below the threshold values by 10% for the last five years.

1.13.2. With the scheme operational, both decreases and increases in pollutant concentrations are anticipated, due to changes in traffic flows and road layouts associated with the scheme, which could lead to relative improvements or deteriorations in air quality respectively.

1.13.3. The largest increases in forecast traffic flows are on roads located in close proximity to the scheme. These include the southern section of the A465, on approach and leaving the proposed roundabout within the scheme, as well as the B4349 and the Clehonger Link, located between the A49/B4399 roundabout and the proposed roundabout on the A465. There are properties located within 20 metres and 50 metres of these roads, which could experience a deterioration in local air quality. However, when considering the magnitude of the change in traffic flow, the existing air quality, the impacts are not likely to be significant.

1.13.4. The largest decreases in traffic flows were seen on a rural road off the A49 and along the northern section of the A465, as it travels through Belmont towards Hereford. There are properties located within 20 metres of these roads, which could experience an improvement in local air quality. However, when considering the magnitude of the change in traffic flow, the existing air quality, the impacts are not likely to be significant.

1.13.5. In addition, decreases in traffic flow were also predicted in the more populated areas to the south of Hereford and therefore improvements in air quality at residential properties would also be expected in these areas. However, the magnitude of change in the number of vehicles on the roads was below the criteria to be included in the quantitative air quality appraisal. For example, a decrease of approximately 700 vehicles per day is anticipated on Walnut Tree Avenue and a decrease of approximately 600 vehicles per day is anticipated on Holme Lacy Road.

1.13.6. Overall, the air quality impacts are considered to be **not material**, with a very slight overall monetised disbenefit of £0.08m in discounted 2023 prices and values.

1.14. Reliability Impacts

1.14.1. The scheme is likely to result in wider economic impacts that are additional to the transport user benefits set out in the preceding sections. It is also likely to improve journey time reliability due the additional capacity that the scheme represents.

1.14.2. The methodology to quantify and monetise such benefits is based on an evolving approach and is less widely accepted and researched. When combined with the benefits summarised in the preceding sections of this chapter to calculate the initial BCR, an adjusted BCR can be calculated.

1.14.3. The change in journey time reliability was estimated for the scheme's Area of Influence based on the guidance contained within TAG Unit A1.3, Section 6.3 for urban roads. This approach considers the ratio of the assigned time within the highway model to the free-flow time as a measure of the standard deviation in journey times and monetises this using the same assumptions as adopted within the TUBA assessment of the forecast scheme impacts.

1.14.4.

1.14.5. Table 1-14 summarises the results of the reliability assessment by user class. An overall journey time reliability benefit of £1.714m is estimated over the over the 60-year appraisal period.

Table 1-14: Summary of reliability benefits by user class, £m 2023 prices and values

User class	Value, £m
HGV	0.027
LGV	0.178
Car Employers' Business	0.175
Car Other	0.862
Car Commute	0.472
Total	**1.714**

1.15. Wider Economic Impacts

Introduction

1.15.1. Wider economic impacts arise because market failures in secondary (non-transport) markets, such as the product, labour, and land markets, mean that the full welfare impact of a transport investment may not be reflected in the transport market. The underlying assumption is that improved connectivity and accessibility between areas will effectively reduce the 'economic distance' between enterprises, increasing business productivity and competition.

1.15.2. The wider economic impacts are described in TAG Unit A2 and can be divided into three distinct groups on the basis of land-use change: fixed land-use, implicit land-use change; and explicit land-use change. As none of the housing or employment developments assumed in the forecasting are specifically dependent upon the scheme (although the scheme will be one of the enablers for this growth), wider economic impacts were assessed based on the assumption of fixed land-use and calculated using the DfT's Wider Impacts in Transport Analysis (WITA) software (v2.3).

1.15.3. In assessing the potential scale of wider economic impacts, it is useful to determine the extent to which the scheme is located within or sufficiently close to a 'Functional Urban Area' (FUR), and hence to check that the range of possible wider economic impacts is likely to materialise. FURs contain a high density of businesses that are able to benefit from clustering, through achieving agglomeration (productivity) benefits such as learning, networking and coordination. The scheme is located on the edge of the Hereford FUR, but also has MRN and SRN connections to the nearby Leominster and Ledbury FURs to the north and southeast respectively. Agglomeration effects decay over distance. Empirical evidence suggests that for agglomeration to occur the relative travel times must be within 45 minutes; peak morning journey times to Worcester are generally more than this, although interpeak and evening peak journey times from those locations may be feasible within 45 minutes.

Agglomeration

1.15.4. WITA was used to assess static clustering, the impact on productivity of the decrease in generalised travel costs that in effect brings firms and employees closer together and assumes no change in land-use. It was not considered justifiable to assess productivity impacts on the basis of land-use change brought about by the scheme (dynamic clustering), given there are a number of drivers and factors behind forecast increases in employment and dwellings, not all of which can be attributed to the scheme.

Labour supply impacts

1.15.5. WITA was used to assess labour supply impacts. Transport costs are likely to affect the overall costs and benefits to an individual from working. In deciding whether to work, an individual will weigh travel costs against the wage rate of the job travelled to. A change in transport costs is therefore likely to affect the incentive to work and hence the overall level of labour supplied in the economy.

1.15.6. As the scheme reduces the generalised cost of travel, mainly through improved travel times rather than a reduction in vehicle operating costs, there will be a higher level of labour supplied in the economy due to its implementation. It should be noted that only the tax revenues from changes in the labour supply are counted as additional benefits.

Increased output in imperfectly competitive markets

1.15.7. As detailed in TAG, the impact of increases or decreases in output in imperfectly competitive markets is calculated as a factor of the total business user benefits derived from TUBA. The estimate of the factor of benefits to take is specified in TAG Unit A2.2 Paragraph 4.3.1 as 13.4%. This can also be applied to journey time reliability assessments, although this was not undertaken in this case, and would only have had a very small positive benefit.

Results

1.15.8. Table 1-15 shows the forecast benefits arising from agglomeration, by industrial sector. It shows there are positive agglomeration impacts realised from the scheme, providing around £0.73m of benefits across the 60-year appraisal period. This is due to the reductions in journey times and delays (for both personal and business trips) as the scheme improves the connectivity and accessibility between suppliers and firms. Most of the benefits are associated with Herefordshire (£0.47m), the district in which there is the largest congestion relief and increase in accessibility.

Table 1-15: Benefits arising from agglomeration impacts, 2023 prices and values

Industrial sector	Value of benefit
Manufacturing	£13,384
Construction	£98,425
Consumer services	£242,701
Producer services	£372,055
Total	**£726,565**

1.15.9. As the scheme is forecast to reduce the cost of travel, through improved travel times and reliability, there will be a higher level of labour supplied in the economy due to its implementation. As shown in Table 1-16, there is expected to be a marginal tax revenue increase of more than £0.31m.

Table 1-16: Benefits arising from labour supply Impacts, 2023 prices and values

Economic impact type	Value of benefit
Welfare Benefit from Labour Supply Impact	£781,991
Tax Revenues from the Labour Market Impact of Additional Workers	£312,796
Total	£1,094,787

1.15.10. The impact of increases or decreases in output in imperfectly competitive markets, calculated as an uplift factor of the total business (including freight) user benefits derived from the conventional transport user benefit appraisal, is estimated to be £2.06m (Table 1-17).

Table 1-17: Benefits arising from increased output in imperfectly competitive markets, 2023 prices and values

Economic impact type	Value of benefit
Output Change in Imperfectly Competitive Markets	£2,057,168

1.15.11. The overall wider economic impacts, as summarised in Table 1-18, are estimated to be £3.88m. Of these, just over half (53%) are forecast to be realised through Change in Imperfectly Competitive Markets, with the scheme improving accessibility between firms and their suppliers, markets and workers, with much of this benefit accruing in Herefordshire.

Table 1-18: Summary of wider economic impacts, 2023 prices and values

Economic impact type	Value of benefit
Agglomeration	£726,565
Labour market impacts	£1,094,787
Imperfectively competitive markets	£2,057,168
Total	**£3,878,520**

1.16. Scheme Costs

Introduction

1.16.1. This section summarises the scheme costs as used in the economic assessment, based on May 2026 estimates.

Scheme Costs

1.16.2. The base costs for the scheme have been estimated through the development of a bill of quantities exercise that was undertaken following the appointment of the D&B contractor for the scheme and the completion of the detailed design process. The costs encompass project development activities, construction, and support resources and are distributed between financial years 2026/27 and 2028/29. Sunk project development costs incurred between financial years 2024/25 and 2025/26 inclusive have been discounted from the base costs given that they are now unrecoverable regardless of the scheme's construction.

1.16.3. The present value cost of the scheme has been developed in-line with DfT TAG Unit A1-2 Scheme Costs, which outlines the methodology for converting base costs into present value costs.

1.16.4. The initial base cost has been calculated as the total cost developed through the bill of quantities minus sunk costs and the monetary output of the quantitative risk assessment (QRA) detailed in Appendix G. The output of the QRA has been discounted as this forms part of the later stages of the methodology of DfT TAG Unit A1-2. This results in an initial base cost, as seen in Table 1-19, of £37.2m in 2026 prices.

1.16.5. Whilst the costs per financial year are all fixed in 2026 prices, costs expected to be incurred in 2027/28 and 2028/29 may increase more than the TAG assumed GDP

deflator level. Construction cost inflation has been derived from the Series 7808 Building Cost Information Service Road Tender Price Index. This forecasts a rise in building costs over the next 12 months (from Q2 of 2026) to be 2.8% per annum, meaning that there will be additional 'real price' increase for future years. Accounting for this real price increase due to construction cost inflation, the total cost, for appraisal purposes, rises to £37.4m in 2026 prices.

1.16.6. DfT TAG Unit A1-2 requires an adjustment to factor in optimism bias or contingency, with the guidance suggesting that the larger of these two being taken. The recommended optimism bias for a highway scheme at FBC stage is 20%, however, Green Book supplementary guidance on optimism bias outlines how contributory factors to this 20% optimism bias can be mitigated. A mitigation exercise has been undertaken, the results of which are detailed in Table 1-20, with an optimism bias of 11.8% being deemed suitable. The QRA monetary output, as a proportion of the initial base cost, is equal to an uplift of 8.8%, therefore, the optimism bias uplift of 11.8% has been applied, leading to a cost, for appraisal purposes, of £41.8m in 2026 prices.

1.16.7. To convert the 2026 prices into a present value cost in 2023 (as is required by DfT TAG Unit A1-2), the costs incurred for each financial year are deflated and discounted to 2023 prices, resulting in a scheme cost of £33.2m. Finally, a market price adjustment has been applied in accordance with DfT TAG Unit A1.2 to convert costs from market prices to factor prices, ensuring that the present value costs reflect the underlying economic cost of resources consumed. This removes the effect of indirect taxes and subsidies, which represent transfer payments rather than real costs to society. This results in a total present value cost of the scheme of £39.6m in 2023 prices. This is the cost which will be used in the appraisal of the scheme.

Table 1-19: Scheme Cost Calculation (£000s)

Base Cost (2026 prices)	Real Cost Adjustment (2026 Prices)	Optimism Bias Adjustment (2026 Prices)	Deflated, Discounted, and Corrected for Market Prices (2023 Prices)
£37,162.5	**£37,381.5**	**£41,792.6**	**£39,558.1**

Table 1-20: Optimism Bias Mitigation

Contributory Factor	Standard contribution (%)	Mitigation Factor	Justification	Contribution after mitigation (%)
Late contractor involvement in design	3	0.5	Delays may be caused by availability of resources, third party dependencies, lack of finance, site conditions and weather. The D&B contractor for the scheme has already been appointed, with any delays being minimised by careful monitoring and	1.5

Contributory Factor	Standard contribution (%)	Mitigation Factor	Justification	Contribution after mitigation (%)
			regular meetings, effective site management, collaborative working and effective coordination, careful scheduling with full commitment to the project by all parties.	
Dispute/claims occurred	21	0.5	Disputes / claims may be caused by uncertainty, contractual problems, and behaviour. Planning consent for the scheme was also already granted by Herefordshire Council in July 2016. Any further disputes with third parties will be mitigated through regular meetings, effective communication and collaborative working between all parties involved.	10.5
Environmental impact	22	0.5	An environmental impact assessment was carried out as part of the planning process, which identified likely environmental effects and potential mitigation measures to minimise these effects. Following detailed design, the scheme is anticipated to have only one moderate adverse residual environmental effect - on the historic environment.	11
Inadequacy of business case	10	0.5	The business case has been developed in accordance with DfT and Green Book guidance. The business case was	5

Contributory Factor	Standard contribution (%)	Mitigation Factor	Justification	Contribution after mitigation (%)
			prepared by AECOM, which has a proven track record of developing business cases for successful funding bids.	
Poor project intelligence	7	1	The project will be managed by Herefordshire Council, including a governance structure featuring a host of members who have an excellent track record in project managing complex, innovative and ambitious highway projects.	0
Public relations	9	0.5	Engagement and consultation have been undertaken with stakeholders and the public around key features of the scheme, ensuring that residents and business are well informed and remain involved in the development and implementation of the scheme.	4.5
External influences	7	0	No mitigation justification required.	7
Site characteristics	3	0.5	A detailed analysis of the site characteristics was undertaken as part of the original environmental impact assessment, and later as part of the detailed design.	1.5
Other	18	0	No mitigation justification required.	18
Total	100	-	-	59
Optimism Bias	20%	-	-	11.80%

1.17. Analysis of Monetised Costs and Benefits

Introduction

1.17.1. This section summarises the monetised costs and benefits, tabulating them in Analysis of Monetised Costs and Benefits (AMCB) tables, and presenting the initial and adjusted benefit cost ratios of the scheme. These all relate to the 'Core' scenario.

1.17.2. The impacts set out in the preceding sections for transport user, accident and environmental benefits are based on established methodologies. Based on this, Table 1-21 summarises the costs and benefits that form the 'initial' BCR. The scheme has a PVB of £58.8m, compared with a PVC of £39.6m, resulting in a NPV of £19.2m and an initial BCR of 1.5 (medium value for money). This excludes wider economic and journey time reliability impacts, which are used to calculate an adjusted BCR, and are covered in the following section.

Table 1-21: AMCB and initial BCR, £000s 2023 prices and values

Analysis of Monetised Costs and Benefits

Noise	£960	*(12)*
Local Air Quality	-£80	*(13)*
Greenhouse Gases	£865	*(14)*
Journey Quality	-	*(15)*
Physical Activity	-	*(16)*
Accidents	-£1,009	*(17)*
Economic Efficiency: Consumer Users (Commuting)	£12,008	*(1a)*
Economic Efficiency: Consumer Users (Other)	£38,498	*(1b)*
Economic Efficiency: Business Users and Providers	£15,043	*(5)*
Wider Public Finances (Indirect Taxation Revenues)	-£7,490	*- (11) - sign changed from PA table, as PA table represents costs, not benefits*
Present Value of Benefits (see notes) (PVB)	£58,795	*(PVB) = (12) + (13) + (14) + (15) + (16) + (17) + (1a) + (1b) + (5) - (11)*
Broad Transport Budget	£39,558	*(10)*
Present Value of Costs (see notes) (PVC)	£39,558	*(PVC) = (10)*
OVERALL IMPACTS		
Net Present Value (NPV)	£19,237	NPV=PVB-PVC
Benefit to Cost Ratio (BCR)	**1.5**	BCR=PVB/PVC

Note: This table includes costs and benefits which are regularly or occasionally presented in monetised form in transport appraisals, together with some where monetisation is in prospect. There may also be other significant costs and benefits, some of which cannot be presented in monetised form. Where this is the case, the analysis presented above does NOT provide a good measure of value for money and should not be used as the sole basis for decisions.

1.18. Analysis of Monetised Costs and Benefits (Adjusted)

1.18.1. Table 1-22 summarises the costs and benefits that form the 'adjusted' BCR, by including wider economic and journey time reliability impacts. The scheme has a PVB of £64.4m, compared with a PVC of £39.6m, resulting in a NPV of £24.8m and an adjusted BCR of 1.6 (medium value for money).

Table 1-22: AMCB and adjusted BCR, £000s 2023 prices and values

Analysis of Monetised Costs and Benefits including wider economic impacts and journey time reliability

Noise	£960	*(12)*
Local Air Quality	-£80	*(13)*
Greenhouse Gases	£865	*(14)*
Journey Quality	-	*(15)*
Physical Activity	-	*(16)*
Accidents	-£1,009	*(17)*
Economic Efficiency: Consumer Users (Commuting)	£12,008	*(1a)*
Economic Efficiency: Consumer Users (Other)	£38,498	*(1b)*
Economic Efficiency: Business Users and Providers	£15,043	*(5)*
Wider Public Finances (Indirect Taxation Revenues)	-£7,490	*- (11) - sign changed from PA table, as PA table represents costs, not benefits*
Wider Impacts	£3,879	
Journey Time Reliability	£1,714	
Present Value of Benefits (see notes) (PVB)	£64,388	*(PVB) = (12) + (13) + (14) + (15) + (16) + (17) + (1a) + (1b) + (5) - (11)*
Broad Transport Budget	£39,558	*(10)*
Present Value of Costs (see notes) (PVC)	£39,558	*(PVC) = (10)*
OVERALL IMPACTS		
Net Present Value (NPV)	**£24,829**	NPV=PVB-PVC
Benefit to Cost Ratio (BCR)	**1.6**	BCR=PVB/PVC

Note: This table includes costs and benefits which are regularly or occasionally presented in monetised form in transport appraisals, together with some where monetisation is in prospect. There may also be other significant costs and benefits, some of which cannot be presented in monetised form. Where this is the case, the analysis presented above does NOT provide a good measure of value for money and should not be used as the sole basis for decisions.

Summary

1.18.2. The Core Scenario has a PVB of £58.8m and a PVC of £39.6m, resulting in an overall NPV of £19.2m. When taking into account wider economic impacts and journey time reliability, the PVB increases to £64.4m and the NPV increases to

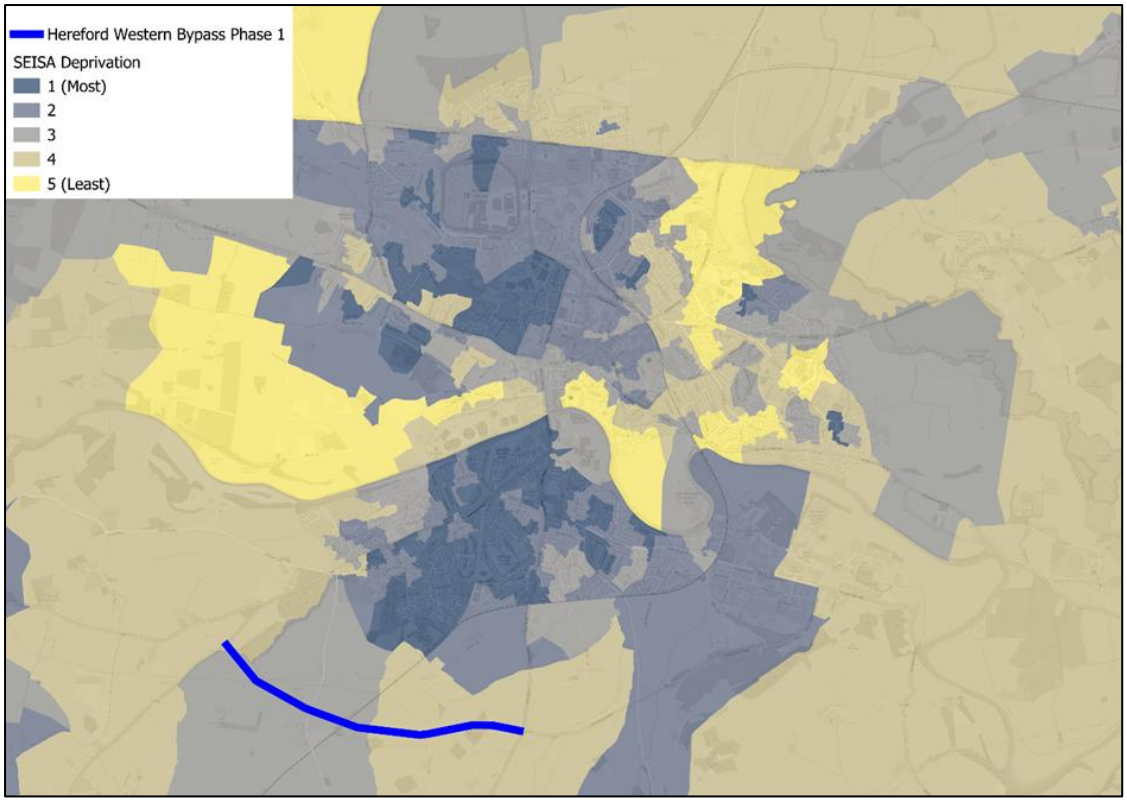
£24.8m. The scheme therefore has an initial BCR of 1.5 (medium value for money) and an adjusted BCR of 1.6 (medium value for money).

1.19. Distributional Impact Assessment

Introduction

1.19.1. A distributional impacts assessment has been undertaken for the indicators described in the DfT's TAG Unit on Distributional Impact Appraisal (Unit A4.2). The full report can be found in Appendix H. The assessment presented here includes reference to the Higher Education Statistics Agency Socioeconomic Index for Small Areas (SEISA), derived from 2021 Census data, and from which the population was categorised nationally into five equal groups (see Figure 1-8), from Group 1 (the 20% most deprived) through to Group 5 (the 20% least deprived).

Figure 1-8: SEISA Income Quintiles in the Area of Impact (Hereford)



Transport User Benefits

1.19.2. The user benefits assessment used TUBA outputs filtered to include only trips with a home location inside the AoI (defined for the distribution analysis as Herefordshire). Non-business trips ('commuting' and 'other' purposes) were aggregated by 2025 English Indices of Deprivation income quintile representing income level at LSOA scale.

1.19.3. The assessment revealed that user benefits are unevenly distributed across income groups, with significant benefits accruing to the middle-income group.

1.19.4. The middle-income group (Group 3) (34% of the population) receives 53% of the benefits.

1.19.5. The least deprived income group (Group 5) (8% of the population) receives 1% of the benefits.

1.19.6. The other income groups receive benefits in-line with their proportion of population.

1.19.7. This distribution represents a neutral outcome from an equity perspective, with disadvantaged groups receiving a proportionate share of the benefits. These groups are concentrated in South Wye. While they may not benefit from personal transport user benefits, due to lower car ownership and a higher propensity to use active modes within the city, they are not adversely affected by the change in travel pattern that produces the user benefits for other groups as there is a reduction in traffic in South Wye with the scheme.

Noise

1.19.8. Traffic noise impacts were assessed for 2,314 affected residential buildings within 600m of the scheme and affected links. These are all in the rural area outside the city. Both daytime (LAeq,16h) and night-time (LAeq,8h) traffic noise levels were evaluated. The analysis found that:

- Most people in the affected area experience no change in noise levels.

1.19.9. Of those experiencing change, more experience an increase than a decrease; the scheme has an overall negative noise impact in the distributional impact analysis.

- In the daytime, income Group 2 is adversely impacted to the greatest extent due to an increase in traffic near Clehonger village on the B4349. Income Group 3 is positively impacted to the greatest extent due to a preponderance of receptors on indirect rural east-west routes relieved of traffic by the scheme. Groups 1 and 4 have proportionate adverse impacts and Group 5 is not present.

- Impacts on both children and older people are generally in-line with their proportion of the affected population.

1.19.10. Non-residential sensitive locations (schools, health centres, community centres, religious sites) show negligible noise impacts (less than 3dB change), resulting in a neutral assessment.

Air Quality

1.19.11. Air quality impacts were assessed for 2,437 affected residential receptors within 200m of affected links, analysing both PM2.5 and NO2 concentrations for the scheme design year. The analysis found that:

- Most people in the affected area experience no change in air quality.

1.19.12. Overall, there is a beneficial impact, indicating decreased PM2.5 and NO2 pollution with the scheme.

1.19.13. Groups 1 and 3 benefit most due to their locations concentrated along Belmont Road and rural east-west routes where traffic is reduced by the scheme.

- Group 2 has slight adverse PM2.5 and slight beneficial NO2 impacts. Adverse PM2.5 impacts are concentrated close to Clehonger village.

1.19.14. Group 5 has large adverse impacts due to being concentrated on the A49 near Much Birch which shows a small increase in traffic with the scheme.

- The impact on children is positive, and broadly proportional to population.

1.19.15. Non-residential sensitive receptors (schools, nurseries, care homes, GP surgeries) showed imperceptible changes in NO2 and imperceptible or very small PM2.5 changes.

Accidents

1.19.16. The accident assessment focused on identifying locations where there are clusters of accidents and casualties and which of the vulnerable groups have atypical casualty rates in the AoI.

1.19.17. Locations identified as having clusters of casualties in the STATS19 data are almost all junctions on the A49 and A465.

1.19.18. In the rural areas, casualty proportions for the vulnerable groups are like the county as a whole. In the urban areas of South Wye, there are higher proportions of Children and Cyclists and lower proportions of Older People than the county as a whole. South Wye has a younger population than the county as a whole and a greater propensity for active travel as journeys are shorter within the city.

1.19.19. The scheme reduces traffic at many of the affected junctions which are where indirect east-west routes currently used to go between the A49 and A465 join these roads. Notably this includes the B4348/A465 junction at Lock's Garage. Other affected junctions are in South Wye. The scheme generally reduces traffic in South Wye where the Cyclist and Child casualty proportions are high.

1.19.20. Impacts are moderate beneficial for Cyclists and Children and slight beneficial for Older People, Pedestrians, Motorcyclists and Young Male Drivers.

Security

1.19.21. The scheme is designed to maintain pedestrian access where road layout changes are proposed.

1.19.22. The possible impact on security indicators is assessed as neutral, and therefore no detailed distributional impacts assessment of security was undertaken.

Accessibility

1.19.23. The scheme maintains pedestrian access where road layout changes are proposed. There are no proposals to relocate services due to the scheme which would change access for public transport users.

1.19.24. The possible impact on public transport accessibility is assessed as neutral, and therefore an assessment of the distributional impacts of accessibility was not undertaken.

Severance

1.19.25. Severance assessment focused on links meeting TAG criteria for significant flow changes with flow per hour greater than the equivalent of 150 passenger car units, within areas likely to generate walking trips to amenities (within 800m) or bus stops (within 400m).

1.19.26. Routes meeting these criteria are either villages with some amenities or the Belmont Road-Walnut Tree Avenue-Holme Lacy Road-Straight Mile corridor. On the latter corridor the scheme reduces traffic and the impact is consistently beneficial. The affected population is mostly located in South Wye and includes significant numbers of people with no car availability, young people and disabled people. Impacts are assessed are slight beneficial for Older People and moderate beneficial for No-Car, Young and Disabled groups.

Personal Affordability

1.19.27. Personal affordability impacts were assessed focusing on changes in vehicle operating costs due to the scheme. The scheme is likely to increase journey distance for east-west traffic using the scheme and produce adverse impacts

(although it is worth noting that any increase in operating costs is more than offset by the benefits from reduced journey times).

1.19.28. In the wider area there are slight positive impacts for the A49 corridor.

1.19.29. The overall impact is adverse with the largest impact on the middle-income group (Group 3) and the least impact on the lowest (Group 1) and highest (Group 5) income groups.

Summary

1.19.30. The Distributional Impact Assessment is summarised for all indicators in Table 1-23. The scheme has mostly positive distributional impacts, benefitting the lowest 4 income groups and the younger, more deprived population in South Wye. Adverse impacts for personal affordability are to be expected for a scheme that generates longer faster journeys. The noise modelling did not cover the city where traffic is expected to reduce and some benefit could be expected.

Table 1-23: Distributional Impact Appraisal Matrix

	Distributional impact of income deprivation					Are the impacts distributed evenly?	Key impacts - Qualitative statements (example below)
	0-20%	20-40%	40-60%	60-80%	80-100%		
User benefits	✓✓	✓✓	✓✓✓	✓✓	✓	No	Positive benefits are felt by all income groups due to a reduction in journey time with the scheme in place. Benefits favour the middle income group and the highest income group has a disproportionately small share of benefits.
Noise	××	×××	✓✓✓	××	neutral	No	Noise impacts favour those in the middle income group. The affected areas for that group are the indirect west-east routes relieved by the scheme. The highest income group is not represented. All other groups experience noise disbenefits. 80% of the assessed population have no change in daytime noise.
Air quality $PM_{2.5}$	✓✓✓	×	✓✓✓	✓✓	××	No	PM2.5 impacts favour the most-deprived and middle income group. Due to their location in South Wye The second-most and least deprived groups experiences PM2.5 disbenefits. 80% of the assessed population have no change in PM2.5 concentration.
Air quality NO_2	✓✓✓	✓	✓✓✓	✓✓	×××	No	NO2 impacts favour the most-deprived and middle income group. Due to their location in South Wye The least deprived group experiences NO2 disbenefits. 85% of the

	Distributional impact of income deprivation					Are the impacts distributed evenly?	Key impacts - Qualitative statements (example below)
	0-20%	20-40%	40-60%	60-80%	80-100%		
							assessed population have no change in NO2 concentration.
Affordability	×	××	×××	××	×	No	Affordability disbenefits are felt by all income groups due to longer journeys with the scheme in place. The most- and least-deprived income quintiles have a smaller share of disbenefits and the middle-income group has a larger share of disbenefits compared with population.
Accessibility							Not assessed.

1.20. Sensitivity Tests

Common Analytical Scenarios

1.20.1. Sensitivity tests were undertaken to scrutinise the economic performance of the scheme,

1.20.2. The following Common Analytical Scenarios (CAS), in-line with the TAG Uncertainty Toolkit, were assessed:

- Low economic growth – assumes productivity growth fails to return to historic levels and inwards migration is subdued, causing low levels of total population growth.

- High economic growth – assumes productivity growth returns to its long-term (pre-COVID-19) trend, and people become richer than we currently expect. Migration and population in general increase above official forecasts.

1.20.3. The results of these tests are summarised in Table 1-24.

Table 1-24: Analysis of Monetised Costs and Benefits by CAS, excluding journey time reliability and wider economic impacts, £000s 2023 prices and values

CAS	Low	Core	High
User Benefits	£59,270	£65,549	£72,860
Other benefits (Noise and Air Quality not recalculated from the Core)	£826	£736	£594
Indirect Tax	-£7,235	-£7,490	-£7,959
Developer contributions	0	0	0
PVB	£52,861	£58,795	£65,495
PVC	£39,558	£39,558	£39,558
BCR	1.3	1.5	1.7
Value for Money excluding wider impacts and reliability	Low	Medium	Medium

1.21. Concluding Statement

Value for Money

1.21.1. The results of the economic assessment for the Scheme are presented in this Economic Dimension. There are benefits of **£58.8m**, rising to **£64.4m** when including wider economic impacts and journey time reliability. Compared with costs (PVC) of **£39.6m**, these result in an initial Benefit Cost Ratio (BCR) of 1.5 and an adjusted BCR of 1.6, both representing Medium Value for Money (VfM) in accordance with DfT VfM criteria.

1.21.2. This is a very strong result for Phase One of the Hereford Bypass, which has a primary purpose of being the enabler for delivering the wider bypass scheme. This appraisal demonstrates that Phase One can deliver significant benefits in its own right and deliver value for money. This provides a strong economic case for Herefordshire Council to invest in the delivery of this phase of the bypass scheme.

Prepared for: Herefordshire Council

3. Financial Dimension

Hereford Western Bypass

Phase One - Financial Dimension

Herefordshire Council

June 2026

Delivering a better world

Quality information

Prepared by	Checked by	Verified by	Approved by
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1. Financial Dimension

1.1 Overview

1.1.1 The Financial Dimension focuses on the affordability of the scheme, and how it will be funded. It sets out the costs for Phase One of the bypass, including the approach to estimation, potential savings through value engineering cost profiling, along with financial risks to outline the financial viability of the scheme and determination as to whether it can be delivered within available budgets.

1.1.2 The chapter is split out across the following sections:

- Approach to cost estimation, including potential for value engineering;
- A breakdown of the total scheme costs;
- Cost profiling; and
- Commentary on the funding mechanisms for the scheme.

1.2 Approach to cost estimation

Construction Costs and Preliminaries

1.2.1 Graham Construction Ltd (Graham) was appointed as the Design and Build (D&B) contractor for the Phase One scheme in early 2026. The procurement process for this appointment is set out in more detail as part of the Commercial Dimension. Stage One of the D&B is award of the Pre-Construction Services Agreement (PCSA). This involves Graham working with the Council under the PCSA to finalise the construction costs (amongst other things).

1.2.2 As part of their tender submission, Graham were required to price a detailed cost estimate (Bill of Quantities) for the construction of the scheme, based on a combination of the previous design for the scheme and recommended updates identified by AECOM to ensure alignment with latest design standards and requirements. This also included calculation of all preliminaries associated with the scheme including mobilisation/demobilisation, management and supervision, site setup, traffic management etc.

1.2.3 In preparing this estimate, their Estimating Director and Senior Estimator collaborated with their site operations team and the supply chain (including AtkinsRealis as their design partner) to produce a detailed cost estimate for construction of the scheme, using the Causeway Estimating Software. The cost estimate followed a first principles approach and was governed by an Estimating Checklist to ensure a comprehensive approach to cost calculation. They also benchmarked their estimate for this project against similar recently completed projects to gauge accuracy.

1.2.4 Throughout the PCSA period, Graham are undertaking a Value Engineering (VE) exercise to identify cost reduction opportunities, acknowledging the importance of this process to ensure that the scheme costs remain affordable within the available budgets. The identification and application of VE to the scheme costs is discussed as part of this section.

Inflation

1.2.5 The outturn base costs (with contingency) have been adjusted for inflation in order to account for changes in ‘real costs’ over time, and accounting for the fact that base costs are in 2026 prices and scheme delivery is expected between December 2026 – September 2028. It is important that a suitable level of inflation is allocated as part

of the scheme costs to take account of the prevailing macro-economic external influences which could impact upon the price of construction materials. Inflation indices have been derived from the Series 7808 Building Cost Information Service Road Tender Price Index. This forecasts a rise in building costs over the next 12 months (from Q2 of 2026) to be 2.8% per annum. This level of inflation (compounded) has been applied to the scheme costs through to 2028/29.

Contingency

1.2.6 The project is likely to experience financial pressures, including several unknown costs primarily related to the interfaces with National Highways and Network Rail. Therefore, it is prudent that the project holds a healthy contingency budget.

1.2.7 The Department for Transport's 'Transport Appraisal Guidance' (specifically TAG Unit A1.2 – Scheme Costs) requires that where possible all project related risks that may impact on the scheme costs should be identified and quantified in a Quantified Risk Assessment (QRA), to produce a risk-adjusted cost estimate. In this regard, a QRA has been carried out based on engagement between Herefordshire Council, AECOM and Graham to determine implications of each identified risk on the cost of the scheme and the programme, based on a minimum, maximum and most likely scale. Further detail on the identification and management of risks is set out as part of the Management Dimension.

1.2.8 Outputs from this assessment have been input to the '@Risk' risk management software to determine P(20), P(50) and P(80) and P(mean) monetised risk values outputs. P(80) means that there is an 80% probability that the cost of risks will be less than or equal to this value, the P(Mean) value has been applied to the base cost, as recommended in TAG Unit A1.2. This amount equates to £3.26m. The accompanying QRA report is set out in Appendix G.

1.3 Total scheme costs

1.3.1 A detailed Bill of Quantity has been prepared for the scheme. A summary of the initial costs is set out in Table 1-1 below. All costs are reported in 2026 prices.

1.3.2 As set out in the previous section, the total works (construction) cost and preliminaries have been calculated by Graham. Contingency costs have been derived from the risk modelling associated with the QRA, whilst total outturn costs have been adjusted for inflation as described above. Final project development costs, including land purchases, design costs, professional services costs and PCSA Stage One have been provided by Herefordshire Council.

Table 1-1: Initial scheme cost estimate

Expense Item	Cost (£)
Preliminaries	£11,777,000
Construction costs	£26,162,000
Total Main Works cost	£37,939,000
Project Development	£5,737,000
Contingency (QRA)	£3,263,000
Total Project Development cost	£9,000,000
Support Resources	£300,000
Inflation	£1,063,000
Total Scheme Cost (excl. VE savings)	£48,302,000

1.3.3 As described in Section 1.2, Graham has been carrying out a VE exercise to determine potential cost reduction opportunities. This work has led to the initial identification of £3.5m cost savings to be applied to the total construction cost, based on the opportunities set out in Table 1-2.

Table 1-2: Value engineering savings

VE Opportunity	Cost Saving (£)
Replace imported fill with site won material from borrow pits.	£1,200,000
Remove 1m hard strip throughout the road length. Replace with wider verge through cuttings to assist earthworks deficit.	£750,000
Replace long RC wingwalls at S04 with Reinforced Earth walls similar to the solution at S02 and S08	£300,000
Adopt alternative pavement design utilising flexible pavement with (HBGM) base for the mainline pavement design	£400,000
Increase verge width through the cutting at CH1960-Ch2640 to win additional material and improve the current earthworks deficit.	£200,000
Optimisation of the drainage design including counterfort drains, balancing ponds, CKD, narrow filter drains, separate carrier drains, reduction in road crossings.	£150,000
Structure S06 shortened span for inspection, constructability and aesthetics	£500,000
Total	**£3,500,000**

1.3.4 It should be noted that at the time of this FBC submission, the VE exercise is ongoing and there may be opportunities for further cost savings to be made.

1.3.5 The updated scheme costs taking account of the VE savings are set out in Table 1-3. In this table, inflation has also been applied across the three main cost components.

Table 1-3: Scheme costs taking into account Value Engineering savings

Cost Component	Cost (£)
Project Development	£9,104,000
Construction	£35,308,000
Support Resources	£309,000
TOTAL SCHEME COST	**£44,721,000**

1.4 Cost profiling

1.4.1 The anticipated funding profile for the scheme is set out in Table 1-4. This is broken down across the three main cost components, with inflation included.

Table 1-4: Scheme cost profile

	2024/25	2025/26	2026/27	2027/28	2028/29	Total
Project Development	£356,000	£2,100,000	£3,682,000	£2,106,000	£860,000	**£9,104,000**
Construction	£-	£-	£9,509,000	£19,511,000	£6,288,000	**£35,308,000**
Support Resources	£-	£-	£60,000	£164,000	£85,000	**£309,000**
Total	£356,000	£2,100,000	£13,251,000	£21,781,000	£7,233,000	**£44,721,000**

1.5 Funding mechanisms

1.5.1 The Council has put in place £45.3m of capital funds from its own resources/borrowing to deliver Phase One of the bypass. This budget has received S151 approval and was put in place following three governance decisions:

- Cabinet approval in March 2024 of £10.3m of capital and £760k of revenue for the development of the bypass including land acquisition, design work, development of the business case and contingency costs
- Full Council approval in February 2025 of £30m of capital for the construction of Phase One
- Full Council approval in February 2026 of £5m of capital towards the construction of Phase One

4. Commerical and Management Dimensions

Hereford Western Bypass

Phase One - Commercial and Management Dimensions

Herefordshire Council

June 2026

Delivering a better world

Quality information

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1. Commercial Case

1.1. Overview

1.1.1. The Commercial Dimension details the procurement strategy for the scheme. This covers the commercial and contractual means by which the Phase One scheme will be delivered. This chapter is split out across the following sections:

- Output-based specification;
- Detail on the procurement strategy for appointment of construction contractor;
- Achieving cost certainty; and
- Overview of the construction contract type and management.

1.2. Output-based specification

1.2.1. The scheme consists of the following outputs:

- 3.6km of new highway, consisting of a single carriageway road (one lane in each direction) between the A49 Ross Road at the roundabout with Rotherwas Access Road and the A465 / B4349 Clehonger Road junction;
- A new structure to facilitate crossing over the existing Hereford to Newport railway line;
- A fourth arm adding to the existing A49 roundabout; and
- A new A465 roundabout to enable the new link road to tie in with the A465. The road then extends from the proposed roundabout on the A465 creating a new link to the B4349 (Clehonger Road).

1.3. Procurement strategy

1.3.1. A key element of the procurement strategy for Herefordshire was first to determine how the scheme could be best procured to meet the Council's requirements of value for money and meeting the Council's delivery programme commitments.

1.3.2. Procurement in the local government public sector in England is governed by the Procurement Act 2023, which came into force on 24th February 2025. All works contracts of more than £5,372,609 in value (such as the Phase One scheme) are subject to the public sector tendering rules meaning that they must be advertised on Find a Tender (the Government's e-tender portal) and subject to an open tender procedure. This tender notice is published to inform potential suppliers about the contract opportunity and remains open for 5 weeks prior to the issue of the tender documents.

1.3.3. AECOM were procured in January 2025 to provide professional services support to Herefordshire. This included undertaking a review of Phase One to identify those areas of design that need to be developed further so that planning consent conditions and current design standards can be met and third-party approvals issued in order for the scheme to be constructed.

1.3.4. Following this, the Council had two options for procuring the resources required to progress the scheme to construction:

- Utilise the Professional Services support it had procured through AECOM to undertake the design to completion and thereafter procure a contractor to price a bid on a known design; or
- Procure a Design and Build contract, enabling a contractor to undertake responsibility for the design and be able to undertake preparation for construction in parallel.

1.3.5. A Design and Build contract was identified as being the optimal procurement strategy for the following reasons:

- **Design Changes and Third-Party Interface**

  Given the number of material changes required to update the design, along with the significant engagement required with third parties including Network Rail and National Highways in finalising the design of the railway bridge and the roundabout junction with the A49, it was considered prudent to follow the route of a Design and Build contract. This would enable the Council to bring the contractor on board at a much earlier stage, and enable design modifications and third-party agreements to be undertaken and secured in parallel with construction preparations.

  Having the contractor engaged at the design stage also increases certainty of the proposals and is less likely to lead to changes arising from buildability or construction practicalities at a later date and therefore increases certainty on both programme and costs.

- **Value Engineering**

  It is typical for an element of value engineering design or redesign to improve buildability to be undertaken by a contractor during any construction tender and so having a contractor on board for Early Contractor Involvement (ECI) in the designs is likely to reduce the overall design programme and reduce rework which will in turn reduce costs to the council.

  It was also anticipated that a Design and Build approach would be cheaper than separate design and construction routes as typically there is an element of redesign during construction tender process to value engineer schemes to a competitive or affordable price.

- **Temporary Works**

  A Design and Build approach enables discussions with third-parties to include temporary works (i.e. those works required to enable the construction such as haul roads to enable access along the length of the works site and compounds) at the same time as permanent works so that sufficient detail is in place in a timely manner to enable approvals at an earlier stage. This also provides the confidence to submit the temporary works for planning consent (where required) at an earlier stage.

Procurement Routes

1.3.6. There were two procurement routes available to Herefordshire Council. Either through an open tender process or utilise a relevant framework provider to procure a contractor to deliver the next stage of the scheme.

Open Tender Route

1.3.7. An open tender process would typically introduce a pre-qualification questionnaire (PQQ) to limit the number of companies that tender for the works and remove any speculative bids from organisations not suited to or capable to deliver the works. A PQQ process typically takes six weeks, with a further six weeks for assessment and confirmation of those to be invited to tender.

1.3.8. The council would then invite a small number of providers that meet the minimum threshold to progress to a formal bid stage. A typical tender period for a scheme of this size would be 16 weeks, with a further 8 weeks for assessment and contract award, with internal governance decision extending this process depending on the timeliness of the decision within the decision-making cycle.

1.3.9. The contractor would require approximately 6 months to close out design issues, sufficient to commence work on site, prior to a 3-month period to mobilise construction works.

1.3.10. Given that the tender process was expected to commence in September 2025, the overall duration from the publishing tender notice to commencing works on site would be approximately 79 weeks. This would take a construction start date to March 2027; 3 months later than the planned start date of December 2026.

1.3.11. A summary of the advantages and disadvantages of this route are set out in Table 1-1.

Table 1-1: Open Tender Route - Advantages & Disadvantages

Advantages
Competition: Open procedures allow for a wider range of suppliers to bid, increasing competition and potentially leading to lower tender prices.
Transparency: It promotes transparency in the procurement process, as any eligible suppliers can participate.
Flexibility: It can be more flexible, allowing for adjustments in the process for specific projects.
Cost: There are no additional costs to the council of utilising an open tender procedure.
Disadvantages
Time-Consuming: The process can be lengthy and labour-intensive, requiring significant administrative effort.
Risk of Inexperienced Suppliers: Open procedures may attract bids from suppliers who lack the necessary experience or qualifications, increasing the risk of non-compliance which is why a PQQ phase becomes essential for complex projects.
Higher Evaluation Costs: Evaluating a large number of bids can be costly and time-consuming through each stage of the tender process. The council would need to have the support of a professional services consultant like AECOM to assist in valuation due to a lack of internal expertise and so would need to fund the cost of their support during the additional SQ stage.
Cost/Programme disputes: As there is no long-term contractual relationship under an open tender there is a greater likelihood of the appointed contractor behaving more adversarial, leading to cost/programme disputes.

Framework Route

1.3.12. A procurement framework is a contract with a list of pre-vetted providers that enables an authority to access the market without the need for a PQQ stage. Frameworks are procured competitively such that the contractors who have secured a place on the framework have already demonstrated to the framework owner their ability to deliver quality and cost competitiveness. This ensures that the competitiveness of contractors has been assessed to enable them to secure a place on the framework A framework is managed by a third party and often has a standard form of contract that has to be followed and typically will set a charge for access to the framework of a small percentage of the contract value.

1.3.13. There are several potential existing public procurement frameworks that allow Herefordshire Council to use them to appoint a design & build contractor. These frameworks include SCAPE, PAGABO, Midlands Highways Alliance (MHA), Crown Commercial Services and the Procure Partnerships framework.

1.3.14. Frameworks often have value and geographic lots with pre-qualified contractors on the relevant frameworks. There are often between four to nine contractors on the major value frameworks with contractors being pre-qualified to conduct work as a direct appointment or subject to mini competition.

1.3.15. As there is no PQQ stage to the tendering process a saving in duration of 17 weeks is made against open tender. Thus, from the tender process commencing in September 2025, this would mean that site works could commence during December 2026.

1.3.16. A summary of the advantages and disadvantages of the framework route are set out in Table 1-2.

Table 1-2: Framework Route - Advantages & Disadvantages

Advantages
Time Saving: Frameworks simplify the procurement process by pre-selecting suppliers, reducing the need for placing adverts under Find a Tender and undertaking a Pre-Qualification Questionnaire (PPQ) to reduce the number of suppliers taken to full tender, therefore saving valuable programme time. The framework suppliers have already been through a rigorous selection process to get on the respective framework and are compliant with the regulations which the council is required to follow.
Reduction in Disputes: Under a framework the contractors generally have their behaviour and attitude to minimising disputes monitored using Key Performance Indicators (KPIs). This is to reward non-adversarial and collaborative behaviours with the contractors' who exhibit the right behaviours seeing the most opportunities through the framework. This typically leads to less contractual arguments with contractor's wishing to avoid disputes.
Legal Costs: As the framework terms and conditions are pre-agreed there is no need to incur significant additional legal costs to iteratively agree the contract terms and conditions
Quality Assurance: Frameworks often include quality standards and performance criteria, ensuring a consistent level of service. Framework suppliers are incentivised to provide high level service by the potential to get further work through the framework.
Cost Savings and Certainty: They can lead to savings through saving time by avoiding the need to evaluate multiple PQQs and contractual disputes. Framework procurement process typically involves the pricing of model schemes, which when combined with the performance management plan should provide cost and programme certainty.
Stability and Predictability: Framework agreements provide a stable and predictable procurement process, with contractor performance and behaviours being closely monitored by the framework administrators.
ECI: Mechanism to get Early Contractor Involvement appointment in place quickly to benefit from early construction advice. Opportunity to talk to framework contractors during procurement process to assist in the identification of location specific issues and problem areas, such as railway crossing and A49 junction.
Disadvantages
Reduced Competition: Framework agreements can limit competition to an extent as only preselected suppliers can participate. The low number of suppliers on some frameworks could potentially result in a low number of tender bids and less competition potentially leading to higher costs, although there is not necessarily any evidence that this is the case.
Flexibility Limitations: They may lack flexibility in some situations, making it harder to adapt to changing needs by modifying existing contracts.
Benchmarking: The age of some frameworks may require cost benchmarking against other schemes due to the price variation caused by the economy, Brexit, Ukraine, and the potential to be impacted by tariffs. Some frameworks have already undertaken this exercise on behalf of clients but some would require the council to undertake its own benchmarking in assessing tender submissions and compensation events to ensure that they align with framework rates.

Route Selected

1.3.17. The framework route was seen as being most beneficial as this enabled the Council to get to market quicker to a selection of contractors which the Council can have confidence in delivering the works required. In order to mitigate any potential reduction in value that may be perceived through a framework rather than an open tender it was recommended that procurement be undertaken by a mini-competition to ensure a further element of competitive tendering.

1.3.18. Supporting the council's approach, the recent report published by the Competition and Markets authority into the Civil Engineering Sector[1] (May 2026) provides a series of recommendations on how to improve outcomes in the market in-terms of delivering efficiencies, a key one (Recommendation 11) is for the use of frameworks for procurement, with the overall aim of reducing costs, delivery times and overruns.

Framework Selection

1.3.19. Herefordshire Council assessed the following frameworks for the suitability of procuring a Design & Build contractor for the Phase 1 scheme:

- Crown Commercial Services;
- Midlands Highways Alliance (MHA);
- SCAPE;
- PAGABO; and the
- Procure Partnerships framework

1.3.20. As part of this assessment discussions were held with each of the framework managers to gather evidence for their suitability. These discussions identified that:

- The SCAPE framework which only has Balfour Beatty on the framework and therefore does not have a mini competition option available.
- The Crown Commercial Services framework does not have a regional based lot and therefore contractors on that framework may not have a regional presence so may potentially have less existing relationships with the local supply chain to enable them to be utilised effectively.
- The Midlands Highways Alliance highlighted that their framework would require additional contract clauses to support running a mini competition for a D&B contract.

1.3.21. Of the remaining frameworks, both PAGABO and Procure Partnerships could support running a mini-competition for a D&B contract and had suitable regional contractors.

1.3.22. The decision was taken to use the PAGABO Major Works framework as this contained six suppliers (plus 2 reserve suppliers), whereas Procure Partnerships only had four suppliers. Herefordshire Council considered that they were more likely to have a competitive procurement by utilising the framework with the most suppliers.

1.3.23. Following the selection of the PAGABO framework, Herefordshire Council undertook a soft market engagement with all of the contractors on this framework. This included inviting them to meetings where the council provided a presentation on the scheme and gave contractors the opportunity to ask questions.

[1] https://assets.publishing.service.gov.uk/media/6a0ea16d9c0df135284ec751/Final_Report_.pdf

1.3.24. The council asked all suppliers on the framework to express their interest in producing a competitive bid for constructing the scheme. The council received expressions from Graham's, Octavius and Galliford Try. The council also undertook considerable engagement with Kier, who ultimately decided not to bid due to having too many other commitments.

1.3.25. During the mini-competition the council held an on-site session with the prospective contractors. This enabled each contractor to walk the length of the scheme alongside HC officers which also provided the opportunity for the contractors to ask further questions and gain an understanding of the site topography and constraints that will be involved when delivering the scheme.

1.3.26. All of this activity meant that the council had three serious and capable contractors who were bidding competitively to deliver the scheme.

Procurement Outcome

1.3.27. Based on the above considerations, the works are being procured under a Two Stage Design & Build process. Stage One resulted in an Award for a Pre-Construction Services Agreement (PCSA) to John Graham Construction Ltd (Graham). Graham are working with the Council under the PCSA, which will involve the contractor finalising the designs, resolving planning conditions, seeking temporary works planning applications and gaining approvals from Network Rail and National Highways as well as confirming the construction costs.

1.3.28. Stage two will see the award of the construction contract. This FBC setting out the value for money assessment of the scheme will be published and considered by Cabinet in July 2026 ahead of the potential decision to award the construction element of the procurement.

1.3.29. A further competition process was conducted through the Pagabo Civils and Infrastructure (Lot 4 – Road Transport, Midlands) framework (Reference AVP-QEF-1001), with tender documents being issued to the three contractors who expressed an interest in the further competition on 24th October 2025. Three compliant tenders were received from national contractors with experience in the delivery of major transport infrastructure schemes in early January and a tender evaluation process was undertaken resulting in the decision to appoint Graham.

1.3.30. A Procurement Evaluation Report was prepared in February 2026 by Herefordshire Council which documented the procurement process and agreed approach.

1.4. Cost Certainty

1.4.1. It is important that the project is delivered as close as possible to its estimated budget.

1.4.2. The council is aware there is a history, nationally, of major infrastructure projects overspending. Herefordshire is determined that lessons from other scheme are learned and that every effort is made to reduce risks and to gain cost certainty before the construction contract is awarded.

1.4.3. The government's Infrastructure and Projects authority has produced best practice guidance on cost estimating[2]. This guidance highlights that robust planning, design and preparation in the early stages of a project's lifecycle are essential in driving

[2] https://assets.publishing.service.gov.uk/media/6050c9528fa8f55d324b0c84/IPA_Cost_Estimating_Guidance.pdf

successful delivery, going on to highlight that ECI both supports and enables better cost estimates.

1.4.4. Early contractor involvement has been shown to uncover costs risks and enable better programme planning to control or reduce costs. Finalising design through an ECI process is a proven method of improving cost certainty.

1.4.5. The procurement strategy adopted for the PCSA and the contract approach help to ensure that the project is delivered as close as possible to its estimated cost. As part of Graham's tender response, a detailed cost estimate was prepared based on a Bill of Quantity. The cost estimate drew upon a combination of the previous design for the scheme and recommended updates identified by AECOM to ensure alignment with latest design standards and requirements. This also included calculation of all preliminaries associated with the scheme including mobilisation/demobilisation, management and supervision, site setup, traffic management etc.

1.4.6. In preparing this estimate, their Estimating Director and Senior Estimator collaborated with their site operations team and the supply chain (including AtkinsRealis as their design partner) to produce a detailed cost estimate for construction of the scheme, using the Causeway Estimating Software. The cost estimate followed a first principles approach and was governed by an Estimating Checklist to ensure a comprehensive approach to cost calculation. They also benchmarked their estimate for this project against similar recently completed projects to gauge accuracy.

1.4.7. Throughout the PCSA period, Graham are undertaking a Value Engineering (VE) exercise to identify cost reduction opportunities, acknowledging the importance of this process to ensure that the scheme costs remain affordable within the available budgets. Due to a range of macro-economic factors, it is also likely that certain costs may also increase prior to scheme completion. To counter this, a suitable level of inflation and contingency has been added to the scheme costs as detailed in the Financial Dimension.

1.5. Contract Type and Management

1.5.1. The Form of Contract for the PCSA is NEC4 ECI and the Form of Contract for the Works is NEC4 Option A with amendments. The contract covers the PCSA stage over an 11 month period. The two stage ECI approach will enable The Contractor's Designer to complete the due diligence, update the design and obtain technical approvals in parallel with other tasks such as stakeholder engagement and mobilisation. It will also enable the contractor to start work on site before some detailed aspects of the design have been completed.

1.5.2. The contract has been reviewed by Herefordshire Council's legal team and will be managed by the Council's Project Manager for the scheme. AECOM will continue to work with Herefordshire Council as its professional service provider during the development of the appointed contractor's design to assist Herefordshire Council in meeting the scheme requirements.

1.5.3. Further detail on the governance arrangements for the management of the delivery of the scheme are set out in the Management Dimension.

2. Management Case

2.1. Overview

2.1.1. The Management Dimension sets out how the Phase One element of the scheme will be governed, managed, delivered and monitored to enable successful implementation and realisation of benefits. Key elements which this Dimension will report on include:

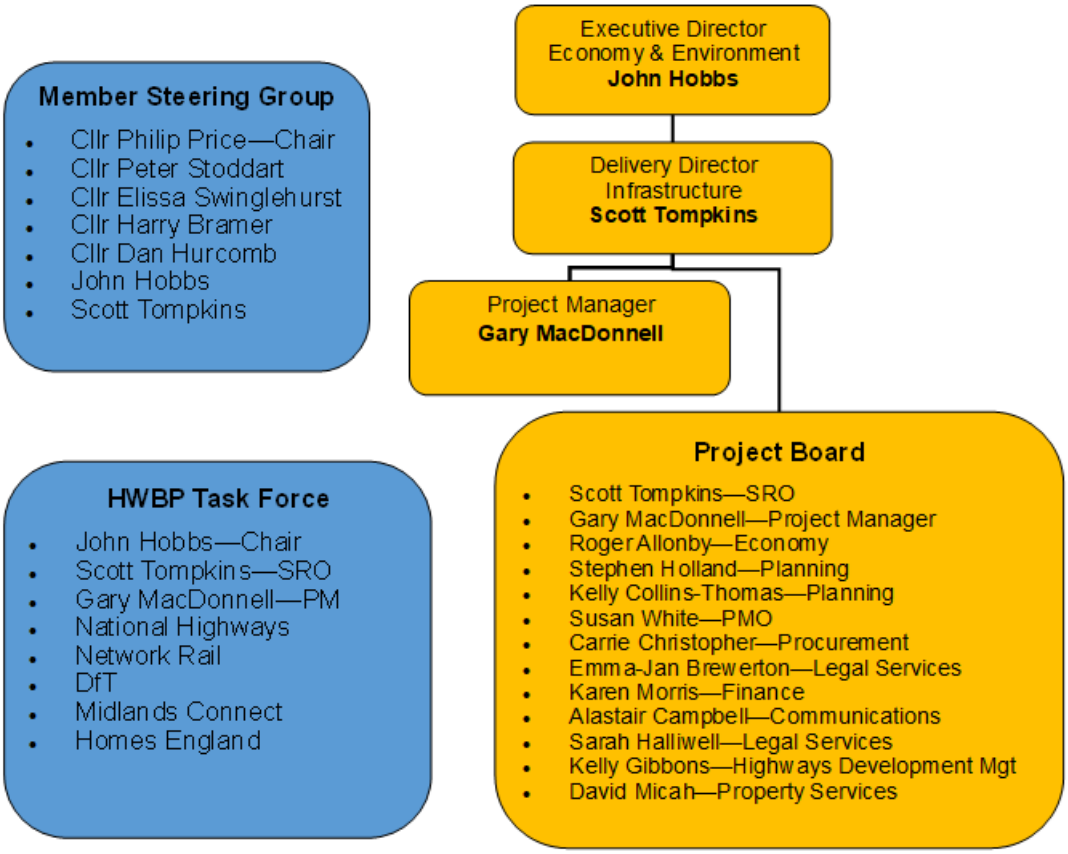
- Capability and resources, including Herefordshire's governance arrangements for the scheme;
- A detailed programme;
- Detail on the Council's risk management approach and risk allocation;
- Latest planning position, including evidence of planning permission, status of pre-construction planning conditions and enabling work applications;
- Evidence of design compliance with latest legislative and regulatory requirements;
- Latest position relating to consents, approvals and interfaces, including with National Highways and Network Rail;
- Land acquisition and detail on the CPO processes which are being followed;
- Approach to stakeholder engagement;
- Detail on the approach to carbon management and BNG;
- Outline of Herefordshire Council's maintenance strategy for the scheme;
- Approach to benefits management and monitoring and evaluation;
- Approach to lessons management; and
- Details of the Social Value Plan

2.2. Governance Arrangements

Project Governance

2.2.1. The governance structure for the delivery of the Phase One scheme is set out in Figure 1-1 below.

Figure 1-1: Hereford Western Bypass - Phase One - Governance Structure



2.2.2. The primary governance arrangements are carried out through the member led Steering Group and Officer group Project Board, outlined below.

2.2.3. The Member Steering Group includes six Cabinet members and is chaired by Cllr Philip Price – Cabinet Member for Transport and Infrastructure. The Group meets monthly, with an agenda, reports and minutes recorded. Steering Group meetings are key in keeping elected members updated on progress and to providing strategic direction to the project. Key strategic risks are regularly reviewed with Steering Group and mitigation measures or corrective actions discussed.

2.2.4. The Project Board is chaired by Scott Tompkins as the Senior Responsible Officer and includes a range of directors, managers and project management staff, from finance, planning, property services, procurement, legal and communications departments. As outlined in the Board's Terms of Reference, it is "Accountable for the delivery of the Project, ensuring the project meets its strategic purpose, delivering high quality value for money outcomes for the Council and follows the Council's applied Governance model for project management". All aspects of the project are discussed at the Project Board as necessary. The Project Board also meets monthly with an agenda, reports and minutes recorded.

2.2.5. Project Board considers and makes key operational decisions or reviews the decisions being made by the Project Manager. Key strategic risks are reviewed at Project Board meetings as well as any operational risks that have been highlighted or escalated by the Project Manager or by any of the consultants or contractors working on the project.

2.2.6. Decisions made by the Project Board are recorded by the Project Manager in the minutes of the meetings as well on record of decisions forms. The Council's Verto

project management system is used to track the project and to record any major changes to project scope.

2.2.7. The Task Force was set up to ensure that key partners such as National Highways, DfT, Network Rail, Midlands Connect, Homes England and Transport for Wales are kept informed and are supportive of the bypass project. The Task Force meets on a quarterly basis.

Capacity and capability of project and technical teams

2.2.8. Herefordshire have a core team of officers tasked with delivering the project shown in Table 1-4.

Table 1-3: Core Team Offices

Name	Role
Scott Tompkins	**Senior Responsible Officer:** The SRO's role is to facilitate the successful delivery of the Project. This may take the form of helping to procure key resources for the project or intervening to resolve disputes or issues with other areas of council activity. The SRO will also lead the management and delivery teams and provides the interface with the Project Board and the wider council team. They will approve appointment (as required) of external specialist teams.
Gary MacDonnell	**Project Manager:** The role of the Project Manager is to: • Lead and coordinate the project team and its work streams; • Procure consultants and contractors; • Manage the construction and professional services contracts; • Prepare and report project budgets; • Manage project risks and issues; • Report to, and receive feedback from, the SRO • Provide expert advice and recommendations to the project board when engineering or cost decisions are required; and • Produce periodic progress reports to relevant Council committees. • Project administration including recording of decisions, minutes and agendas.

John Hobbs	**Corporate Director:** The Corporate Director plays a strategic leadership and assurance role in delivering the Phase One scheme.

2.2.9. These individuals have been appointed in their roles partly on the basis that they have experience of delivering infrastructure projects and new highways schemes. Appointments made have been by Senior Leaders with delivering the Western Bypass a clear corporate priority reflected in these appointments. CV's provided in Appendix L.

2.2.10. AECOM were appointed to be the Council's technical partner to move the project into delivery phases. AECOM have an outstanding reputation in providing the full range of consultancy services and the individuals assigned to the bypass project have significant previous experience . Alongside Herefordshire's land agent and legal consultants AECOM have provided necessary services to take the project from the point of commencement through to the Design & Build phase. AECOM will also act as the Council's professional advisors through the construction delivery phases (to be confirmed at the time of this FBC submission).

2.2.11. Graham and AtkinsRealis were appointed following a competitive tender process. Following the Cabinet decision to use a national construction framework to procure a two-stage contract for the construction of Phase One of the Western Bypass, the Pagabo Civils framework (a UK-based company specialising in local government construction procurement) was used to undertake a procurement. Three compliant tenders were received from national contractors with experience in the delivery of major transport infrastructure schemes in early January 2026 and a tender evaluation process was undertaken resulting in this decision.

2.2.12. The procurement is following a two-stage process with Stage One being the pre-construction services agreement which will see the contractor finalise the designs, resolve planning conditions, seek temporary works planning applications and gain approvals from Network Rail and National Highways as well as confirm the construction costs.

2.2.13. Stage Two will see the award of the construction contract and will be undertaken in early 2027 once Graham's has completed the pre-construction design and preparations works.

2.2.14. It is clear that Herefordshire Council has established a strong and appropriately resourced technical project team, supported by clear governance, defined roles and responsibilities, and robust project management controls. These arrangements provide effective oversight, enable timely identification and management of risks and issues, and support informed, evidence-based decisions, giving confidence that the Phase One element of the scheme is being managed effectively and in accordance with good practice.

2.3. Project Programme

Key Project Milestones

2.3.1. The key dates and milestones for Phase One delivery are set out in Table 1-4 and broken down by pre-construction, construction and post construction activities. Construction of the scheme is expected to commence in December 2026 and will follow an 18-month delivery programme. The full project programme prepared by Graham can be found in Appendix M.

Table 1-4: Key Project Milestones

Date	Milestone
February 2026	Appointment of PCSA contractor
Mar – Sept 2026	Ecology surveys
April 2026	Cabinet decision to agree FBC decision criteria
June 2026	Phase One FBC published
June – Nov 2026	Baseline data collection (to inform BMEP)
July 2026	Scrutiny review of FBC
July 2026	Submit supplementary planning applications for Phase One
August 2026	Completion of all land transactions
August 2026	Side Roads Order processed
September 2026	Cabinet review of FBC and decision to release construction budget for the scheme
September 2026	Determination on supplementary planning applications
September 2026	Discharge of all planning conditions
September 2026	Notice to proceed
October 2026	Archaeologist appointed for Phase One earthworks
October 2026	Site set up commences
November 2026	Public Information Exhibition
December 2026	Construction of Phase One commences
March 2027	BMEP Baseline Report completed
September 2028	Phase One opens to traffic
Sep 2029 – Dec 2029	Year 1 post-opening data collection
March 2030	Year 1 post-opening report completed
Sep 2031 – Dec 2031	Year 3 post-opening data collection
March 2032	Year 3 post-opening report completed

2.4. Risk Management

Approach

2.4.1. The management of risk and uncertainty will be key to the successful delivery of the project, as it will identify threats to project delivery and enable effective risk management actions to be assigned. An effective risk management process requires:

- A continuous approach to risk management;
- A thorough approach to risk identification;
- Active risk avoidance and mitigation;

- Effective communication of risks throughout the project team and an escalation process in place to ensure that risks and issues can be managed at an appropriate level of authority dependent upon their severity; and
- Delivery of the scheme objectives to budget, programme and quality.

Identifying Risks

2.4.2. A bespoke risk register has been developed detailing scheme risks (including both pre-construction and construction risks) and assigning appropriate categorisation of risk (Appendix N), including cost/programme impact and likelihood, and ownership. This is a 'live' document throughout the scheme development and delivery process to ensure a thorough and dynamic understanding of risks. Where appropriate, the approach to risk management is to eliminate the risk or prepare relevant mitigation measures to manage and reduce the impact of the risk.

2.4.3. Six of the top scheme risks and their associated mitigation measures are documented in Table 1-5.

Table 1-5: Key Project Risks

Key Risks	Proposed Mitigation
Delay caused by any impedance to obtaining planning consent for the supplementary planning application.	Provide technical support and information to the Client. Site clearance during PCSA stage. AtkinsRealis to continue from Tender Stage work and keep design within constraints
The 2018 Bill of Quantity/Activity Schedule does not match the 2018 Scope and/or quantities calculated in PCSA stage and/or measured quantities differ from those developed in PCSA stage	Experienced team involved in the PCSA stage. Continuity of the team. Raise TQs to resolve. Opportunity for optimisation of Earthworks Material Strategy to reduce imported fill.
Pricing volatility occurs between tender submission and contract award	Make an allowance for escalation based on feedback from supply chain and review of performance of current indices
Potential for delays and design changes resulting from requirement to obtain National Highways Technical approval and legal agreement at tie-in with A49.	There are some departures from standard on the new leg of the A49 roundabout (entry deflection criteria and exit width). These should be able to be resolved with minimal effort. Note this is a pre-commencement condition for this section and discharge of planning condition is required before temporary accesses to site from A49 can be approve
Key Herefordshire staff leave organisation or are absent due to sickness causing delay to programme, missing key deadlines or project inefficiencies	Provide appropriate organisational resilience and succession planning
Potential for CPO to be required for land acquisition resulting in design change; delays to construction and potential requirement for a public inquiry.	Bruton Knowles currently completing negotiations with land owners.

Managing Risks

2.4.4. The Risk Register includes mitigation measures which will need to be implemented in order to manage and reduce the likelihood and impact of the risks identified.

2.4.5. The Risk Register is kept as a live document and updated in line with the project's governance arrangements, with appropriate escalation of key risks to senior management and the Project Board as required.

2.4.6. The project manager coordinates regular risk register reviews whereby risks are identified through a collaborative process where the project team agree the nature of the risk, its likelihood and potential impact on the project. The project team decide at the point of identification how the risk will be managed (i.e. tolerated, managed, mitigated etc) and where possible detail risk mitigations. In terms of risk allocation, all risks have an owner responsible for managing that risk in the manner agreed.

2.4.7. Additionally, high level strategic risks are reviewed with Cabinet members on a monthly basis through the project Steering Group and with Risk Review reports that are provided for Cabinet briefing. These reports provide a recap of any changes in risk and details of mitigations that have been put in place.

2.4.8. In terms of financial risks and budget monitoring for development cost expenditure, performance against the approved budget is monitored through a formal cost baseline, regular capture of actual expenditure, and ongoing forecasting of outturn costs. Monthly reports compare budget, actual spend and forecast outturn. This information is reviewed through established governance arrangements, with escalation should there be any major concerns raised.

Risk Allocation and Transfer

2.4.9. It is anticipated that the main risks will take place during the construction phase of the scheme, and these can be managed by ensuring risks are transferred to the most appropriate organisation to be managed in the most effective way.

2.4.10. The collaborative nature of working employed between Herefordshire Council and Graham as the Design & Build contractor helps to manage and share risk effectively. The table below outlines the potential allocation of risk.

Table 1-6: Risk Allocation

Risk Category	Potential Allocation		
	Herefordshire Council	Graham Construction	Shared
Design Risk			X
Construction Risk			X
Availability & Performance Risk			X
Operating Risk	X		
Legislative Risk	X		
Control Risk			X
Termination Risks	X		
Financing Risks			X

Other Project Risks			X

Quantified Risk

2.4.11. TAG Unit A1.2 requires that where possible all project related risks that may impact on the scheme costs should be identified and quantified in a Quantified Risk Assessment (QRA), to produce a risk-adjusted cost estimate. In this regard, a QRA has been carried out based on engagement between Herefordshire Council, AECOM and Graham to determine implications of each risk on the cost of the scheme and the programme, based on a minimum, maximum and most likely scale.

2.4.12. Outputs from this assessment have been input to the '@Risk' risk management software to determine P(20), P(50) and P(80) and P(mean) monetised risk values outputs. P(80) means that there is an 80% probability that the cost of risks will be less than or equal to this value, the P(mean) value is used within the scheme appraisal, which has enabled the costs in the Economic and Financial Dimensions to be calculated based on a more robust risk-adjusted estimate.

2.5. Planning Status

2.5.1. Planning application ref. P151314/F was submitted on behalf of Herefordshire Council on 8th May 2015 for the construction of a "*new single carriageway (Southern Link Road) and associated works*". As Herefordshire Council was the applicant as well as the determining authority, it was undertaken in accordance with Regulation 3 of the Town and Country Planning General Regulations (1992).

2.5.2. The Scheme proposed under planning application ref. P151314/F would provide a new single carriageway (two lanes) road between the A49 Ross Road at the roundabout with Rotherwas Access Road and the A465 / B4349 Clehonger Road junction. The road is approximately 3.6 km in length.

2.5.3. From the A49, the road extends westwards from a fourth arm to the roundabout, through Grafton Wood and then continuing over Grafton Lane at Withy Brook before crossing above the existing Hereford to Newport railway line. After this it passes underneath Haywood Lane, straightening up and heading in a north westerly direction to join with the A465.

2.5.4. The planning application was determined at planning committee on 6th June 2016. Committee resolved to grant planning permission and the decision notice was dated 18th July 2016. Planning permission was granted subject to 21 conditions, which are set out as part of the decision notice for the application.

2.5.5. This included a number of pre-commencement planning conditions. For a planning permission to be implemented lawfully, all necessary pre-commencement planning conditions must be discharged prior to construction work commencing on site.

2.5.6. A non-material amendment application (reference P191223/AM) relating to conditions 17 Highways (design and construction details for junction between SLR and A49(T) and 18 Highways (legal agreement for work on the A49 trunk road) of planning permission P151314/F was approved on 27 June 2019. The non-material amendment was with regards to the pre-commencement requirement for the further design details pertaining to the section of the link road at the junction of the A49 trunk road, this amendment allowed the commencement of development prior to the discharge of condition 17 and 18.

2.5.7. The pre-commencement planning conditions associated with application P151314/F were discharged, with conditions 6, 7 and 8 partially discharged referring to the approximate 150 m section of SLR within Herefordshire ownership only. This

allowed a construction start to take place only that section only. A nominal commencement of works was undertaken between 1 July 2019 and 18 July 2019 to secure the planning permission before it expired and confirmation from the planning case officer was obtained to clarify that the consent had been lawfully implemented.

2.5.8. There were 4 ‘compliance’ conditions associated with the planning consent, including the standard expiration condition. Condition 1 “The development shall be begun before the expiration of three years from the date of this permission”. This would mean that the planning permission would have expired on 18th July 2019 if construction works had not commenced by that date. However, as nominal commencement of works took place between 1st July – 18th July 2019 (through the construction of a small ‘strip’ of scheme), this condition has been satisfied, and the planning permission remains valid.

2.5.9. It was therefore established that planning application ref. P151314/F has been lawfully implemented and works to construct the scheme could proceed in accordance with the approved plans.

2.5.10. Further to the original consent for the scheme (ref. P151314/F) a second full planning application (reference P182314/CD3) was submitted for a series of enabling works required for the delivery of the scheme following further design work. The works include; proposed new field accesses, maintenance tracks to serve the scheme, revised drainage arrangement including revised storage provisions, drainage ditches, outfall pipes, replacement culverts, a new bridleway and a temporary haul road. All of these works were located outside of the original scheme red line boundary and so were submitted as a separate planning application. The application was validated by Herefordshire Council on 2nd July 2018 and gained consent on 2nd October 2018.

2.5.11. Appended to this consent was a series of 16 conditions, of which condition numbers: 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 and 16 are prior to commencement conditions. These conditions require the submission of further detail to the council for formal review and discharge, prior to works starting on site. A planning application (reference: 191645) for the discharge of details reserved by conditions 3 and 4 was submitted to the Council in May 2019, this application was later withdrawn prior to determination. There is no record of any other applications made to discharge any of the other pre-commencement conditions and as the consent contained a 3-year expiry condition, it is now considered expired and can no longer be implemented.

2.5.12. The consent for the enabling work expired prior to the commencement of the development; to pursue these works a revised planning application for these works would be required. This would allow the works to be formally considered by Herefordshire Planning Department.

2.5.13. Due to the time between the previous set of environmental surveys and reports it is considered that revised surveys and reports would be required to support a revised planning application submission. Usually, ecological reports remain valid for a period of two years before resurveying would be required. The planning application for the enabling works was submitted in 2018 which implies the survey data used to inform the supporting material will be well over two years old. Similarly, whilst a flood risk assessment was not prepared to support the previous application for enabling works, the Environment Agency flood maps for planning have been revised since 2018 and a revised FRA would be required to consider the flood risk to the application site(s).

2.5.14. Since April 2024 Biodiversity Net Gain (BNG) has become a mandatory requirement for most developments under the Town and Country Planning Act

1990. Applicants are required to show a measurable improvement to habitat for wildlife, resulting in a 10% net gain in biodiversity units compared to the pre-development state. BNG can be achieved through a combination of on-site habitat enhancement or creation, off-site habitat creation or enhancement, or through the purchase of statutory credits, though this is considered a last resort.

2.5.15. As the scheme secured planning consent prior to the April 2024 regulations BNG is not required for the full scheme. However, BNG does apply to any new supplementary planning applications related to the scheme.

2.5.16. Development that is considered exempt from BNG comprises: variations of a planning permission; development that does not impact a priority habitat and impacts less than 25 m2 of on-site habitat / 5 m of on-site linear habitats (hedgerows); householder applications; self-build residential schemes; a biodiversity gain site; HS2 development; or urgent crown development. The enabling works do not fall into any of these exemption categories and as such, it is considered that a BNG assessment only will be required to support any supplementary applications. A new planning consent/s is therefore required for this element of the design.

2.5.17. Furthermore, given the length of time that has passed since the original design was completed, some small amendments to the design have been required to ensure compliance with latest legislative and regulatory requirements (whilst staying within the approved red line boundary). This is set out in more detail in the following section.

2.5.18. In summary the position of the scheme is clear. The original planning consent for the scheme is still valid and defines the scheme that will be delivered. There are still a small number of planning requirements that still require to be discharged to enable construction work to commence, and there is a plan in place to achieve this. The council is planning to submit two supplementary planning applications and one temporary works application to enable the delivery of the scheme.

2.6. Scheme Design

2.6.1. Detailed design for Phase One of the scheme was completed in 2018, with planning permission being granted in July 2016 for the development of a “new single carriageway and associated works” on the land between the “existing roundabout junction of A49(T) and B4399 to a new roundabout with the A465 then joining the B4349”.

2.6.2. The design standard used for the original design was the Design Manual for Roads and Bridges (DMRB). The DMRB contains information about current design standards relating to the design, assessment and operation of motorway and all-purpose trunk roads in the United Kingdom. The standards that would have been used to design the Phase One scheme were superseded in 2020 by a new suite of documents to have a clear consistent format.

2.6.3. The alignment of Phase One was designed in accordance with TD9/93 ‘Highway Link Design’ (Volume 6, Section 1, Part 1, DMRB, Highways Agency, February 2002), however this standard has been superseded by the latest 2025 DMRB update.

2.6.4. In August 2025, AECOM produced a Planning Application and Design Review report to consider what changes may need to be made to the 2018 design to comply with latest design standards, along with any significant gaps or deficiencies in the original design information. The review included consideration of key design

elements such as highways, geotechnics, structures, drainage and planning. This report is set out in Appendix O.

2.6.5. As the appointed contractor for the scheme, Graham, along with their design partner AtkinsRealis have now taken ownership of updating the design through the PCSA stage. This also includes a Value Engineering (VE) period to consider and develop VE ideas to be implemented as part of the updated scheme design.

2.7. Third Party Consents and Approvals

2.7.1. Significant engagement with a range of third parties including National Highways, Network Rail and Natural England has been required in the progression of the Phase One scheme due to the significant interface that the scheme will have with infrastructure associated with these third parties. Whilst the scheme had previously been fully designed to a level that had received approval in principle by Network Rail and National Highways, the standards and approval processes utilised by both organisations have moved on and therefore there has been a need to resubmit the scheme for formal approval.

2.7.2. Herefordshire Council have had positive engagement with National Highways, Network Rail and Natural England and the current scheme programme has been shared with all of them. The current status of these engagements is described in the following sections.

National Highways

2.7.3. In the case of National Highways, liaison has been required to agree their technical and design requirements to ensure that the new road is designed and built to adoptable standards in the event of the wider Hereford Western Bypass becoming the trunk road. Engagement has also been required in relation to the tie-in of the eastern extent of the scheme with National Highways' Strategic Road Network (SRN) at the A49 / B4399 junction.

2.7.4. At the time of the FBC submission, the technical approval was yet to be signed off with National Highways, although through the adoption of latest design standards, this should help to derisk the approvals required.

Network Rail

2.7.5. For Network Rail, a new structure is required in the form of 32.9m single span, integral steel composite deck, spanning over the railway line. This will include a 4.5m maintenance access track to be provided on either side of the Network Rail land boundary. In line with DMRB standards, an Agreement in Principle (AiP) document is required for this structure and to acquire the airspace rights over the railway.

2.7.6. Detailed discussions with Network Rail have so far resulted in agreement over the following;

- Minimum headroom under the bridge
- Lateral clearances
- Fencing requirements
- Parapet types and finishes
- Construction methodology to minimise disruption to rail operations
- Impacts on Network Rail signalling and telecommunications infrastructure.

Natural England

2.7.7. The presence of the Hazel Dormouse and Great Crested Newt has been confirmed through surveys that have been conducted on the site of the proposed scheme. Both of these species are protected under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and under the Wildlife and Countryside Act 1981.

2.7.8. European Protected Species Mitigation Licence (EPSML) applications are in the process of being drafted and will be sent to Natural England for approval. Additional EPSMLs or species licences may be required dependant on the results of on-going surveys, and will be applied for from Natural England accordingly.

Statutory Undertakers

2.7.9. Statutory undertaker surveys have been carried out, with four utility providers expected to be affected by the scheme as listed below:

- Dwr Cymru / Welsh Water
- Western Power Distribution
- Cadent
- BT Openreach

2.7.10. All information relating to the status of the statutory undertaker searches has been shared with Graham as the contractor for the scheme, who are now responsible for progressing the statutory undertaker diversions and associated liaison. It should be noted that private water mains / land drains were not included within the original utilities searches and Graham / Bruton Knowles as the land agent will need to establish requirements as part of the landowner accommodation works and discussions.

2.8. Land Acquisition

2.8.1. The Phase One scheme requires the acquisition of much of the land along its route, with only one parcel of land outside of the public highway currently within the council's ownership (approximately 10-15% of the total land required). The land required for the construction of the scheme is largely agricultural land.

2.8.2. The Council has been prioritising acquiring land voluntarily by negotiation through discussions with landowners, which has been led by Bruton Knowles as the Council's appointed property and land consultancy. However, the Council has a duty to demonstrate value for money and must be seen to spend public money prudently to achieve the best combination of costs and outcomes. There is therefore a finite envelope of costs that HC must work within for negotiations and a timescale within which negotiations must be completed to meet the delivery programme for the Phase One scheme.

2.8.3. Therefore, in December 2025, the cabinet agreed to proceed with undertaking Compulsory Purchase Orders (CPOs) in parallel with negotiations, supported by a draft Statement of Reasons.

2.8.4. The land acquisition process would directly impact those who own land along the route. This comprises of seven different landowners.

2.8.5. There are a further three parcels of land for which the CPO will not apply. The first is a parcel of land already within the council's ownership. A second is land in the vicinity of the junction with the A49 which is owned by National Highways and will

remain in the ownership of National Highways upon the completion of the scheme to enable maintenance to be able to be undertaken without wayleaves. Finally, a third parcel of land is in the ownership of Network Rail, however the scheme does not make contact with that land and hence only air rights from Network Rail are required. Agreements with National Highways and Network Rail are being progressed separately (as outlined in Section 2.7 Third Party Consents and Approvals).

2.8.6. When considering the impact on those landowners directly affected by the proposals all reasonable accommodations will be considered to mitigate the impact of the permanent works within the compulsory purchase offer made to residents. It will be ensured that land acquired temporarily to enable construction of the scheme will be returned post construction in an equivalent state to that which it was in when received, unless alternative arrangements have been agreed with the landowner.

2.8.7. Since the cabinet decision in December 2025, preparatory progress has been made including refinement of CPO plans (Appendix P), land referencing and workshops in March 2026 to support negotiations. However, the CPO process has not been concluded. The next steps are to formally finalise and publish the CPO for agreement from the Secretary of State, to be able to serve the statutory notices.

2.8.8. At the time of the FBC submission in July 2026, out of the seven affected landowners, Herefordshire Council have Heads of Terms out with three landowners.

2.9. Stakeholder Engagement

2.9.1. Herefordshire Council has engaged with residents and stakeholders throughout the planning and development of Phase One. This section summarises the key aims and outcomes of those engagements.

Public Engagement and Marketing

Back the Bypass Campaign

2.9.2. The Back the Bypass Campaign was recently launched in March 2026 and provides a platform for sharing the benefits and opportunities that the infrastructure can bring. It has so far included a number of short films along with a brochure and website that set out in more detail some of the likely benefits of the project. The promotional films have included inputs from local residents, business representatives and Councillors setting out the compelling case for change. The Campaign is focused on three key aims:

- Unblock congestion
- Unlock growth
- Unleash potential

2.9.3. The Campaign is set to bring residents along the journey, demonstrating the case for the scheme in an interactive and accessible way for all stakeholders, including the general public. The Campaign will continue into the construction phase, with the view of building momentum and drawing in support across the county from stakeholders, residents and businesses. Alongside this, the Campaign will also be used to drive stakeholder support for the Phase 2 component of the scheme.

Public Information Exhibition

2.9.4. Herefordshire Council will also be delivering a Public Information Exhibition to raise further awareness about the scheme, including the benefits it will bring, timescales,

overview of the design, as well as responding to queries from the public. Graham will support Herefordshire at these events, which are expected to be undertaken throughout November 2026.

Herefordshire Local Transport Plan (2024-2041) Engagement Summary Report

2.9.5. As part of the Herefordshire LTP development process, an engagement exercise with stakeholders and the public was undertaken between 25th March and 21st May 2024. The key aims of the exercise was to understand participants priorities for transport, and improvements they would like to see to make travelling around the county easier, more reliable and sustainable.

2.9.6. Engagement was delivered in-person at roadshow events where 873 people attended and through an online survey where 630 responses were received. Some engagement also took place via email, internal newsletters and post.

2.9.7. The online survey asked respondents to order a number of supporting actions against **LTP Theme A: Supporting a thriving and prosperous economy.** Of the 8 actions identified, providing a transport network with less delays came in at number 2 while building new roads such as a bypass came in at number 4. This highlighted concerns around delays and how new road infrastructure is deemed as a viable solution resolve the issues.

South Wye Transport Package / Phase 1 Consultation (2014)

2.9.8. In advance of submitting the planning application for Phase One in 2015, a public consultation on the South Wye Transport Package and Phase One scheme alignment was undertaken during a 6-week period between 1st July 2014 and 8th August 2014. The consultation material included background to the scheme comprising issues, opportunities and objectives, and the option development process.

2.9.9. The public could engage in person at various exhibitions or online (website, social media, survey monkey link) and provide general feedback alongside answering a consultation questionnaire that had been developed specifically for the scheme.

2.9.10. The questionnaire was developed around the following themes:

- Traffic issues - where are they and how can they be resolved?
- Preferred routing option
- Interest in the scheme
- General feedback on the public consultation approach

2.9.11. A total of 231 questionnaires and 24 letters were received by the end of the consultation period.

2.9.12. A summary of the key findings is presented below. The full consultation report setting out the questions and feedback can be found in Appendix Q.

2.9.13. From questionnaires[3]:

- 95% of respondents (220) agreed that traffic conditions in the South Wye area needed to be improved

[3] Note that not all questions were answered by all 231 respondents and %'s set out may relate to a fewer number of responses. Refer to the Consultation Report in Appendix Q for full details.

- The top 5 current transport problems in the South Wye area noted were:
  - Traffic congestion on the A465
  - Delays at the A49/A465 signalised junction and
  - Traffic congestion on the A49
  - Volume of heavy good vehicles
  - Poor walking and cycling infrastructure
- Of the various options provided to help alleviate the traffic problems in the area, including increasing space for pedestrians (23%), cyclists (42%) and buses (43%) and providing new park and ride facilities (47%), the majority of respondents selected the delivery of a new link road (56%).
- The removal of traffic in Belmont was deemed as the most important factor in choosing an option for the link road.
- Of those who partook in the questionnaire, a large proportion were either regular users of the A465 and A49 or residents of the Belmont highlighting a vested interest in the scheme.

2.9.14. At this stage feedback was also received from Hereford City Council, National Highways (then The Highways Agency), English Heritage and Jesse Norman MP. All stakeholders did not object to the route, and in some cases welcomed the option as a means of reducing congestion issues but requested future engagement through the planning process.

2.9.15. The consultation responses highlighted that there is a traffic issue in the South Wye area and many of the issues culminate on the A465 and around the Belmont area. Overall, respondents were in favour of the scheme, noting that further work is needed as the scheme is designed to mitigate wider potential environmental impacts.

Engagement with wider stakeholders

2.9.16. There are a number of stakeholders who have a vested interest in the scheme and it is therefore important that there are regular and structured communication channels in place to support open and collaborative engagement amongst stakeholders.

Task Force

2.9.17. As outlined in Section 2.2 Governance Arrangements, Herefordshire Council established a Task Force comprising the following key stakeholders: Herefordshire Council, National Highways, Homes England, Midlands Connect, the Department for Transport and Transport for Wales. It also includes AECOM as the consultant support in the progression of the scheme. The Task Force is hosted by Herefordshire Council and meets on a quarterly basis.

2.9.18. The purpose of the Task Force is to provide a platform for all parties to come together to keep abreast of latest progress with the scheme and for high-level updates to be communicated across all parties, both in terms of scheme design and business case development. It is not intended for detailed discussion in relation to scheme requirements.

Design Related Engagement

2.9.19. Frequent engagement is also held with a number of key stakeholders, particularly National Highways and Network Rail to discuss design requirements and ensure third party agreement with the works proposed. These discussions are held on a much more frequent and ad-hoc basis, as and when a matter arises for discussion.

Communications Plan

2.9.20. A Communications Plan has been developed which sets out Herefordshire Council's intended approach for engaging and communicating with stakeholders through the remainder of the PCSA stage and into construction. This Plan is set out in Appendix R.

2.10. Carbon Management and Biodiversity Net Gain

Carbon Management

2.10.1. A Carbon Management Plan (CMP) has been developed for the construction stage of the scheme, aligned with PAS 2080:2023 (note that the estimation of 'user' carbon from vehicle emissions has been calculated separately and is reported within the Economic Case of the FBC). The CMP details how the scheme will manage and minimise carbon emissions during its construction. A three-stage process has been followed in developing the CMP as outlined below.

Stage 1 – Establish carbon footprint

2.10.2. The carbon footprint has been set based on the current detailed design for the scheme, accounting for any proposed Value Engineering. This identifies carbon 'hotspots' associated with the project, allowing carbon reduction efforts to be focused on areas with the greatest impact.

2.10.3. Carbon emissions associated with the lifecycle of the scheme have been estimated using the carbon calculation tool.

Stage 2 – Identify carbon reduction opportunities

2.10.4. Following quantification of the carbon footprint, a carbon workshop was held to identify a list of carbon reduction opportunities, with a focus on the carbon 'hotspots' identified as part of Stage 1. Given the project is quite far through the design, the workshop aimed to capture opportunities that have already been implemented on the project, as well as further opportunities to be explored in the future. The workshop included attendance from Herefordshire Council, AECOM and Graham. Opportunities have been categorised as follows:

- Strategy & Governance
- Innovative Design
- Lower Carbon Products
- Lean Construction Techniques

2.10.5. By identifying and developing carbon reduction opportunities within each of these categories, all aspects of the project have been considered, including management processes, procurement and company culture, as well as technical solutions. The categories are also broadly aligned with the three key areas identified within the UK Government's Infrastructure Carbon Review as being crucial to achieving meaningful organisational carbon reductions: leadership, innovation and procurement.

2.10.6. A summary of the 33 opportunities identified is set out in the Table below. It should be noted that due to the late stage of the project, opportunities for significant carbon reduction were limited.

Table 1-7: Carbon reduction opportunities

Carbon Reduction Opportunity	Description
Early integration of carbon reduction measures in the design	Designers to push for low carbon measures in design early where possible by holding design review meetings to identify and discuss carbon reduction opportunities. Also engage early with supply chain partners and contractors to identify carbon reduction opportunities.
Challenge design standards specifications to drive low-carbon innovations	Question conventional standards and specifications where they conflict with low-carbon outcomes.
Reduce congestion along A465 and Holme Lacy Road	Increasing attractiveness of bus and active travel schemes and reducing traffic flows is a fundamental aim of the project. This can be done through improved bus priority measures, enhanced walking and cycling infrastructure, safer and more direct routes and, prioritised signalling.
Include carbon-related reductions within the contracts	Include measurable carbon targets and KPIs and performance reporting requirements in all procurement frameworks and supply chain contracts to reinforce delivery of reductions during construction.
Develop a waste management strategy	Prioritise prevention and set clear targets for diverting construction waste from landfill. Minimise waste generation, maximise reuse on site where possible, and recycle waste materials, in line with the waste hierarchy.
Encourage engagement with carbon reduction across the workforce	Embed carbon reduction behaviours within site operating procedures and a Construction Trave Plan, encouraging engagement through measures such as active travel, car sharing, and efficient site access arrangements.
Use of ACLA in base and binder asphalt layers	Adopt ACLA within lower pavement layers as part of value engineering to reduce embodied carbon. This creates a carbon sink and potential carbon neutral material, and could increase asphalt life but there is no evidence yet.
Substitute concrete retaining structures with reinforced earth	Use of reinforced earth instead of precast or in-situ concrete.
Minimise total surfaced area	Reduce fully surfaced carriageway width, e.g. by using hard strips in place of full-width surfacing.
Plant trees and limit their removal	Minimise vegetation removal. Where unavoidable, offset through targeted planting of suitable species.
Use driven posts for steel safety barriers	Specify driven posts for steel barriers to reduce concrete requirements.
Design for Manufacture & Assembly (DFMA)	Maximise potential for offsite and modular fabrication, prioritising precast concrete elements such as headwalls and underpasses, to reduce site waste and construction activities.
Incorporate innovative drainage products such as Fildrain	Incorporate products such as Fildrain to replace traditional drainage blankets, reducing the need for

	imported quarry materials. Fildrain offers ease of transport, lower weight, and reduced material usage.
Streamline design and alignment to reduce material demand	Review geometry and structure sizes to reduce earthworks volumes and material requirements.
Reduce embankment height	Reduce embankment height, where possible, to minimise the volume of imported fill and associated earthworks.
Optimise foundation types	Foundation design to prioritise structures with pads rather than piling to reduce carbon, cost and complexity.
Reuse waste materials on site or locally	Reuse excavated material from site where possible to minimise off-site disposal and import quantities.
Use of recycled plastic kerbs	Consider use of recycled plastic kerbs which are manufactured from plastic waste and have lower embodied carbon compared to concrete. They are lighter weight, durable and resistant to rot and corrosion.
Use of unbound pavements on accesses	Use of unbound pavements on accesses where possible
Use recycled asphalt (RA) in asphalt mixtures	Use recycled asphalt (RA) in asphalt mixtures to reduce the need for virgin materials
Procure local goods and services	Procure local goods and services to reduce transportation emissions
Use warm mix asphalts	Use warm mix asphalts to reduce fuel use on site
Do not over-specify concrete compressive strength	Do not over-specify concrete compressive strength in design to minimise embodied carbon
Use recycled fill materials	Use recycled fill materials (Class 1A, 6F2 etc.) to limit quarrying of virgin aggregates. Transportation distance should be considered though as transporting recycled aggregates over large distances could actually be higher carbon than local virgin material
Consider low carbon cement replacements	Consider low carbon cement replacements to reduce embodied carbon
Work towards zero earthworks waste	Work towards zero earthworks waste to minimise emissions associated with disposal
Temporary traffic management optimisation	Minimum traffic management on public roads. Minimising disruptions and therefore traffic and idling.
Minimise use of diesel generators	Avoid diesel generators; use grid electricity wherever possible
Integrated site compound layout and use of stabilised materials	Use of stabilised materials for compounds and access roads. One larger setup using stabilised soils for access roads etc., rather than blacktop
Use of existing local sewer connections	Use of existing local sewer connections for site compounds
Use HVO fuel/ electricity for construction plant and generators	Use HVO fuel/ electricity for construction plant and generators to reduce emissions
Use of modern low-emission plant and equipment	Use efficient engines and emissions control technologies (e.g. AdBlue/Selective Catalytic Reduction systems) to reduce exhaust emissions.
Optimise earthworks logistics	Optimise earthworks planning to avoid double handling/ movement. Maul Haul optimisations minimise haul routes

Stage 3 – CMP Development

2.10.7. A CMP was developed based on all of the information gathered, to detail how the Phase One scheme will manage and minimise carbon emissions across its lifecycle. Carbon reduction measures have been prioritised according to their effectiveness in reducing emissions and their ease of implementation. Measures with high effectiveness to reduce carbon and that are easier to implement have been assigned a higher priority rating compared to those which may be effective but harder to implement.

2.10.8. Some of the high priority carbon reduction measures that have already been implemented, or to be explored further, are listed below:

- Challenging design standards and specifications to drive low carbon innovations;
- Including carbon-related reductions within procurement frameworks and supply chain contracts (implemented); and
- Substituting concrete retaining structures with reinforced earth.

2.10.9. The CMP covers the whole asset lifecycle and is set out in Appendix C.

Biodiversity Net Gain

2.10.10. As of February 2024, there is a legal requirement for major developments to deliver at least a 10% increase in biodiversity (Environment Act 2021). This scheme received planning approval in 2016 and prior to this requirement and therefore it has not been quantified as part of this business case. However, for any associated supplementary planning applications a proportionate consideration will be given to BNG. The attenuation ponds and the additional hedgerows are part of the main works application. We need to be focused on the supplementary planning application and provide a 10% increase of BNG within it. This work is still under preparation and will not be complete until after the submission of the business case.

2.10.11. As outlined in the Strategic Dimension, to compensate for the loss of approximately 1.3 acres of Ancient Woodland as a result of the Phase One scheme, almost 12 acres of species-rich woodland and woodland edge habitat will be created.

2.11. Road Numbering and Classification

2.11.1. The Department for Transport (DfT) determines the classification of new roads based on the recommendations from the local authority and how well the road fits the definition of the road class. The council will make the case with DfT for Phase One to be classified as an A road (possibly the A492) as it will serve an important function connecting the A465 to the A49.

2.11.2. The Council is also likely to request that the B4339 from the A49 to Rotherwas is also reclassified as the same A road as Phase One. Both roads fitting with the definition of an A road having the right lane widths, verges and other features befitting of an A road, and completing a route to Rotherwas and the Hereford Enterprise Zone from the A465.

2.11.3. Longterm, with the construction of Phase Two, National Highways has agreed that they would want to see the entire bypass reclassified as the A49 and that the existing A49 through the centre of Hereford be declassified and de-trunked to local authority control.

2.12. Maintenance Strategy

2.12.1. Herefordshire's Highway Maintenance Plan (HMP) sets out how the Council will deliver its objectives across all assets, as expressed through the Local Transport Plan, Transport Asset Management Plan and other related policies and plans. The plan also sets out the performance that is required by the Council for it to continue to meet the duty to maintain the highway under Section 41 of the Highways Act 1980.

2.12.2. Herefordshire's maintenance strategy is a risk-based process designed to ensure safety, asset longevity, and value for money. The first step involves establishing a hierarchy for the Phase One scheme according to its importance and actual usage. This hierarchy informs the frequency and intensity of inspections, with higher-risk or more heavily used roads receiving more regular attention.

2.12.3. Routine safety inspections will be scheduled along Phase One based on the risk profile of the asset. These inspections, along with reports from the public and ongoing monitoring, will help identify defects and issues across the network. Once a defect is detected, it will be assessed for risk; those posing a greater danger to highway users of the scheme, especially vulnerable groups, will be prioritised for rapid repair.

2.12.4. It is proposed that the Phase One road will be a 'Principal Road' denoted by an 'A' road number. This will mean that the Phase One road will be subject to daytime safety inspections on a monthly basis and an annual night-time inspection to assess the suitability of the road markings and studs.

2.12.5. Maintenance activities are divided into three main types: reactive, routine, and programmed. Reactive maintenance addresses urgent defects immediately to prevent harm or disruption. Routine maintenance includes scheduled tasks such as cleaning drains, cutting verges, and maintaining signage, ensuring the network remains functional and safe. Programmed maintenance involves planned works based on asset condition, such as resurfacing roads or replacing bridges. These works will be aimed at preserving the long-term integrity of the Phase One scheme.

2.12.6. Resource allocation will be guided by asset management principles, directing funds and personnel to repairs and improvements that deliver the best safety outcomes and maximise value. Sustainability is embedded throughout the process, with efforts to use low-carbon materials, support biodiversity, and minimise environmental impact. Finally, performance monitoring and regular reviews ensure objectives are met and drive continuous improvement.

2.13. Benefits Management and Evaluation Plan

2.13.1. As per latest guidance issued by the DfT, Benefits Management and Monitoring and Evaluation can now be combined into a Benefits Management and Evaluation Plan (BMEP).

2.13.2. Benefits monitoring and evaluation is undertaken to collect data and evidence before and after a scheme is implemented, analyse the findings from the monitoring, and draw conclusions about the impacts and value for money of a scheme. This will be based on a quantitative and qualitative assessment to investigate whether the monitoring data collected suggests that the ex-ante appraisal values remain valid.

2.13.3. The scheme will be subject to a process, impact and value for money evaluation using a mixed approach combining qualitative and quantitative analysis. The

approach will enable a proportionate review of whether outcomes have been achieved as expected using readily available data, where possible alongside primary data where required.

2.13.4. To enable the Scheme's benefits to be evaluated, three monitoring and reporting stages are proposed as set out in Table 1-8.

Table 1-8: Proposed Monitoring and Reporting Stages

Monitoring and Reporting Stage	Purpose	Proposed time period(s)
Baseline	A baseline assessment will be undertaken to provide a benchmark to assess changes in outcomes and impacts post-scheme opening. This will also involve process evaluation activities to be undertaken during the construction period.	July – November 2026: Baseline data collection undertaken where relevant / applicable. December 2026 – September 2028: Construction period March 2027: Baseline Report completed
Post opening evaluation (one year after)	The impact of the Scheme will be assessed one year after construction. The one-year post-construction monitoring will provide a first indication of the impact of the Scheme. Evaluation of the delivered Scheme, founded from the Process Evaluation, will be provided within the Year 1 Post-Opening Report.	September 2029 – December 2029: Year 1 post-opening data collection March 2030: Year 1 post-opening report completed
Post opening evaluation (three years after)	The impact of the Scheme will be assessed three years following implementation. The post-implementation monitoring will provide an update to the one-year evaluation and assess changes in key outcomes compared with the initial evaluation, using quantitative and qualitative methods. The value for money assessment will be considered at this stage.	September 2031 – December 2031: Year 3 post-opening data collection March 2032: Year 3 post-opening report completed

2.13.5. The Phase One BMEP can be found in Appendix S providing detail on the full evaluation approach and proposed datasets.

2.14. Lessons management

2.14.1. Lessons management will largely be undertaken through monitoring and evaluation process, specifically the process evaluation which will take place during scheme construction. As set out in the BMEP (Appendix S) the process evaluation seeks to establish whether the scheme was delivered to time and budget and whether any lessons learnt were identified during the process. As a minimum, this will include

Herefordshire Council and the contractor, but if deemed necessary this can be extended to National Highways and Network Rail as key contributors to design.

2.14.2. The process evaluation will be undertaken during scheme construction. The frequency at which engagement takes place will be reviewed before construction commences, however it is likely this will be half way through construction and just after completion. This will be agreed with Herefordshire Council and the contractor, Findings will be presented in the one-year post-construction report highlighting the successes, challenges, opportunities and key lessons learnt. It is recommended that following issue of this document, a lessons learnt workshop is held to discuss findings.

2.15. Social Value Plan

2.15.1. As the appointed contractor for the scheme, Graham has produced a deliverable Social Value Plan with defined actions and with local organisations supported. They intend on working with their design partners AtkinsRealis to deliver social value across both the PCSA and construction stages. The Plan is set out across social, economic and environmental themes and is summarised in Table 1-9.

Table 1-9: Social Value Plan

Social Value Actions
Social
Tailored support for students at local educational institutions, providing 16 hours at PCSA phase and 100 hours at construction phase.
Provide £10,000 worth of donations and/or in-kind support to local community groups at construction stage.
Volunteer to support local community projects spending 15 hours at PCSA and 60 hours at construction stage.
Economic
Spend 25% of the contract value with the supply chain partners within the Herefordshire County boundary by the end of project.
Provide 50 hours of personalised support to help unemployed people into work – 10 hours at PCSA stage and 40 hours at construction.
Deliver 12 hours of expert commercial and business support to local VCSEs and SMEs, running two sessions across 2027 and 2028.
Deliver two unpaid work experience schemes targeting local people at various stages of the project.
Deliver 76 weeks of meaningful paid work placements at construction stage.
Locally recruit 4 new apprentices, delivering 208 apprenticeship weeks at construction.
Environment
Save 20.97tCO2e/£m in scope 1 & 2 emissions.
Limit direct water consumption to 47m3/£m
Limit waste consumption to <21.98 t/£m, with 99% of waste being produced being diverted from landfill.
95% of Graham and 20% of their supply chain's non-plant vehicle fleet will consist of hybrid or electric vehicles.

Hereford Western Bypass

Phase One Full Business Case Appendices

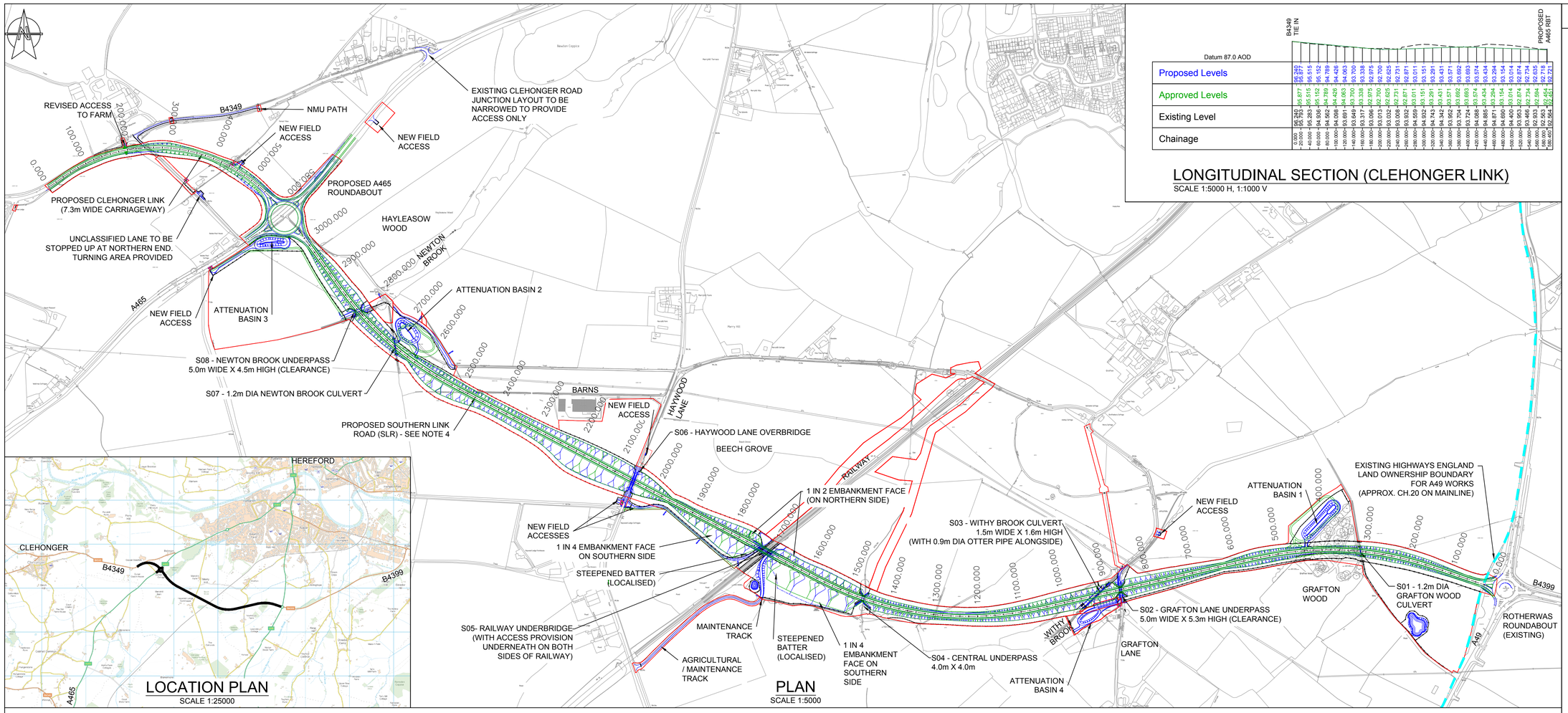
Herefordshire Council

June 2026

Delivering a better world

Appendix A	Phase One Scheme Layout
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Appendix L	Team CVs
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Appendix P	Compulsory Purchase Order Plans
Appendix Q	Public Consultation Report
Appendix R	Communication and Engagement Plan
Appendix S	Benefits Management and Evaluation Plan

Appendix A – Phase One Scheme Layout



PLAN
SCALE 1:5000

LOCATION PLAN
SCALE 1:25000

| Datum 87.0 AOD | B4349 TIE IN | | |

Appendix B – Letters of Support

From: Antony Lowther <antony.lowther@ajlowther.co.uk>
Sent: 04 June 2026 09:01
To: Tompkins, Scott
Cc: Tony Faulkner
Subject: Hereford Bypass Project

Dear Scott
I am delighted that the bypass project is moving again and I write on behalf of AJ Lowther & Son Ltd to offer our full support to the project.

The benefits of the bypass are numerous and well described elsewhere but I would like to add three examples of how current congestion negatively affects AJ Lowthers and the county as a whole:

1. We are no longer able to recruit or retain staff, who would like to work for us, but who live to the north of the city because of the increased journey time caused by the traffic congestion.
2. We have a strong customer base in north Herefordshire and Shropshire which means we are either running our lorries through Hereford or taking a huge detour to travel up the M5.
3. We have worked with Hereford Galvanisers for over 50 years but we are finding the congestion in Hereford has made it less time consuming and costly to deal with a galvanising plant in Newport; loss of business to Herefordshire and more cost for us.

In addition we are well aware of the lack of available sites for businesses to expand in Herefordshire and the new industrial land will make a huge difference to the businesses and economic growth in the county. On the previous two occasions we have expanded our business we have moved outside of the county to Wiltshire and Somerset. Hopefully the bypass will come quickly enough that our next expansion can be in our home county.

Please keep driving this project forward. The county is behind you as are AJ Lowthers.

Yours faithfully

Antony Lowther
For and on behalf of
A J Lowther and Son Ltd

Tel: 01600 890482
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The views expressed in this email are those of the sender and not A J Lowther & Son Ltd

From: Ed Pitt <ed.pitt@kgd.co.uk>
Sent: 03 June 2026 17:17
To: Tompkins, Scott
Subject: Hereford By Pass

Dear Scott
Having attended your" Back The Bypass" launch where the bypass plans were updated last month I can confirm that as a business owner employing 140 high skilled jobs in Rotherwas, that this bypass will enable us to further expand our business and make significant employment increases.

Currently the traffic in the city centre is prohibitive to us gaining employees from particularly north of the river wye but also from the west. Traffic conditions for 2 hours every morning and every night ensure that an addition hour of daily travel time put people off wishing to work in Rotherwas.
I personally live north of the city and sit everyday morning and night, I have done this for 35 years and if I work till I am 67 another 16 years, I will have spent a total of approximately 13,000 hours sat in traffic congestion in Hereford. This is 1.5 years, which is probably 4% of my time on earth awake, what a waste!!! Or as the average person works 1800 hours per year, I could of worked another 7 years!!!!

The bypass would open up Industrial Land, Housing Land, and connectivity which is desperately required, we have been promised this bypass since the 1980's it is now needed more than ever. The overwhelming majority of people want the by pass, it should be a national and local priority.

If anyone wishes to visit us at Rotherwas or commute with me for a week they may better understand why this is critical, the arguments which state it will not assist congestion are ridiculous. At least 70% of our employees would use a bypass from North of the river wye to access Rotherwas!!

Many thanks
Ed

Regards,

Ed Pitt.
Managing Director.
KGD

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Rotherwas Industrial Estate
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Shires
Shires Equestrian Products

M J Ainge & Co. Ltd
15 Southern Avenue | Leominster | Herefordshire | HR6 0QF | U.K | T: 01568 613600 | F: 01568 613599 | E: sales@shiresequestrian.com

TO WHOM IT MAY CONCERN

8th June 2026.

We are a company based in Leominster and as such we are not directly affected by the congestion in Hereford.

However, we have staff who travel through Hereford every day as employees in our Leominster office and warehouse who find the congestion a real problem. We also have customers who travel through Hereford to visit us and have to allow extra time in order to arrive on time for their appointment.

When I visit or travel through Hereford, I am always disappointed to find that the town centre is unnecessarily congested, which is a pity for such an attractive market town.

I feel that a bypass around Hereford is long overdue and would do much to attract business and tourists to the town.

Yours sincerely,

Malcolm Ainge
Chairman
Shires Equestrian

Herefordshire Council
Hereford Bypass Project
Attn: Scott Tompkins
Plough Lane
Hereford HR4 0LE

To Whom It May Concern,

My name is Josh Salmon Company Director of Elite Plastics Ltd on Rotherwas Industrial Estate.

Our company extrudes, prints, converts and recycles polythene products manufacturing polythene films, bags and covers. We consider ourselves the most forward-thinking, sustainable and progressive polythene manufacturers in the UK. We operate from our site on Rotherwas 24 hours a day, 7 days a week non-stop production. The products we manufacture here in Hereford are distributed across the whole of the UK, Ireland and into Europe.

We currently employ around 85 members of staff and have an annual turnover of approximately £17.5 million, with the business continuing to grow year on year.

Over the last 10 years, Elite Plastics has become a strong example of local manufacturing success. We have more than tripled our production operation, significantly increased employment, and continue to target further growth that will support both our business and the wider local economy. In recent years alone, we have invested over £5 million into site expansion, state-of-the-art production lines, advanced technology and a large solar PV installation with over half a megawatt of capacity.

Elite Plastics sees itself as one of the most forward-thinking and progressive polythene manufacturers in the UK. We have won an award for our bold sustainability initiatives and actions. At a time when manufacturing is often seen as a sector in decline, Elite Plastics sees it as an opportunity for growth due to the strength of our operation and, most importantly, the quality of our people here in Hereford.

For these reasons, Elite Plastics Ltd strongly supports the completion of Phase One of the Hereford Bypass.

We state the above because everyone within Elite Plastics understands how to drive growth, success and improvement. We know what drives it, and a key part of that is making big and bold moves. It is abundantly clear to Elite Plastics Ltd and the clear consensus of our staff that completion of Phase One of the Hereford Bypass is fundamental and critical to the economic growth, success and improvement of not only Elite Plastics and our future growth plans but, more importantly, the growth plans and ambitions of the city and county.

Hereford does not attract a fraction of the investment it needs and deserves. Hereford's productivity ranking is among the lowest in the UK. Small tweaks and changes will not make any meaningful change. Big, bold and ambitious action must be taken and if we as a city and county are to thrive we must act quickly and immediately. We will not repeat every benefit in detail, as many are already clear and will be covered by others. But they include attracting more people, more space for businesses, more jobs, better transport links, improving quality of life in the city, quicker journeys – the list goes on. We also need to consider what will happen if we do not act. The outcome is obvious: we will stay stuck where we are, chasing the tails of others. If we want a thriving city and county that leads the way for current and future generations, Phase One of the Hereford Bypass is not optional; it is a fundamental, critical and essential must. Even then it will only be the start because it will unlock much more.

At Elite Plastics, we know that growth requires ambition, investment and action. We are passionate about growth because we see first-hand how it improves lives, creates jobs, strengthens businesses and supports families. We want the same ambition for Hereford and the wider county because we are proud to live and work here. The answer is clear: the consequences of this decision will determine the future of the city. The right choice must be made.

Scott Tompkins
Infrastructure Delivery Director
Herefordshire Council
Plough Lane
Hereford
HR4 0LE

4-6-2026

Dear Mr Tompkins,

Re: Support for Hereford Bypass – Phase One

I am writing to express our strong support for the Hereford Bypass Phase One project.

We recognise the critical importance of this scheme in improving transport infrastructure across Hereford and the wider county. The proposed link between the A49 and A465 represents a significant step forward in addressing congestion and improving accessibility, particularly to key employment areas such as Rotherwas.

We believe the benefits outlined in the business case are both compelling and necessary. In particular, we welcome the anticipated reduction in traffic on key routes including Belmont Road, Walnut Tree Avenue, and Holme Lacy Road, which will help improve journey reliability, road safety, and environmental conditions for residents and businesses alike.

Beyond Phase One, we strongly support the vision for the full bypass scheme. The potential to unlock economic growth through new housing, employment land, and job creation is vital for the long-term prosperity of Herefordshire. Improvements in transport resilience, air quality, and opportunities for enhanced public transport and active travel will further strengthen the region's attractiveness for investment and development.

As an organisation operating within the area, we see firsthand the challenges posed by current transport constraints. We are confident that this project will play a key role in enabling sustainable growth, supporting local businesses, and enhancing connectivity across the county.

We are therefore pleased to support the Hereford Bypass Phase One project and the wider ambitions associated with the full scheme, and we encourage its progression through to delivery.

Yours sincerely,

Tim Morris

Operations Director

ABT Products

National Highways Letter of Support

Placeholder

Hereford Enterprise Zone Letter of Support

Placeholder

Appendix C – Carbon Management Plan

Hereford Bypass Phase 1 - Carbon Management Plan

Quality Information

Prepared by	Checked by	Verified by	Approved by
Aiman Zaidi Consultant AECOM	Alex McMahon Principal Sustainability Consultant AECOM	Ian Davies Carbon & ESG Director AECOM	Paul Bate Project Director AECOM

Revision History

Revision	Revision date	Details	Authorised	Name	Position
P01	May-26	First iteration - FBC footprint	Yes	Paul Bate	Project Director

Related Documents

Document Number	Document Title	Link

Please open this CMP in Excel for full functionality

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Accountability & Sign-off

1. Accountability within the Client organisation

This CMP is a live document, which should be updated throughout the project lifecycle as opportunities are investigated, taken forward and implemented, and as further opportunities and actions are identified. For effective implementation of the CMP, it is important for accountability to be clearly defined. The Accountable Person within the Client organisation should be identified in the table below, and should sign off on the CMP at the end of each project stage.

Project Stage	Name of Accountable Person within the Client organisation	Email of Accountable Person	Carbon Management Plan signed off?	Date of Carbon Management Plan sign off
Outline Design	N/a - not a requirement at the time	-	-	-
Detailed Design	Gary Macdonnell	gary.macdonnell@herefordshire.gov.uk		
Construction	Gary Macdonnell	gary.macdonnell@herefordshire.gov.uk		

2. Sign-off by a Suitably Qualified Carbon Practitioner

This CMP should be reviewed by a Suitably Qualified Carbon Practitioner at each project lifecycle stage to check it is being implemented effectively. The Suitably Qualified Carbon Practitioner should use the table below to sign off on this review when it has been completed.

Project Stage	Name of Suitably Qualified Carbon Practitioner	Email of Carbon Practitioner	Carbon Management Plan signed off?	Date of Carbon Management Plan sign off
Outline Design	N/a - not a requirement at the time	-	-	-
Detailed Design	Ian Davies	ian.davies@aecom.com	Yes	15 May 2026
Construction	TBC			

Introduction

Project Hereford Bypass Phase 1

Client Herefordshire Council

This Carbon Management Plan (CMP) describes how carbon emissions associated with the Hereford Bypass Phase 1 will be minimised in line with the government and organisational net zero commitments. The outputs of the CMP will be project-specific and will support the project team to effectively embed carbon reduction measures throughout the project lifecycle by encouraging early consideration of carbon reduction opportunities and providing clear governance structures and processes to achieve the carbon reduction targets identified for the project.

The CMP helps the project team by:



The CMP is a live document and will be updated throughout the design and construction of the project.

The 'Instructions' tab provides more information on how to interact with this CMP.

Benefits of this CMP

This CMP will allow the client to effectively manage carbon throughout the project lifecycle by encouraging early consideration of carbon emissions and creating appropriate governance structures and processes.

The figure below, taken from PAS 2080, demonstrates how there is a decrease in carbon reduction potential over a project's lifecycle.

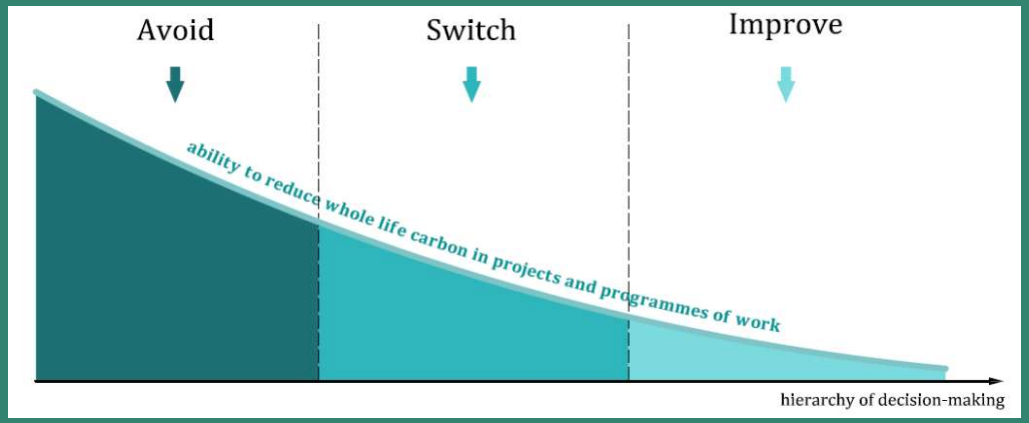


Figure: PAS 2080:2023 Carbon Reduction Hierarchy

The figure demonstrates that the most significant carbon savings are achievable during the early stages of a project, as it is possible to implement more fundamental and transformative measures. For example, some cases include avoiding the project or project components, or by switching mode, method or material. As a project moves beyond the design stage to the delivery and operation phases, further carbon reduction is possible by making processes more efficient and by selecting materials for maintenance with a lower embodied carbon value. However, while there is less scope for high-impact reduction measures at the later stages, it is still essential to consider reduction measures across all lifecycle stages. In addition to mitigating climate change, effective carbon management also provides the following benefits:

- Increases client, designer, and contractor **collaboration**
- Unlocks **innovation** and drives better solutions
- Assists commercial goals through cost savings, realised by increased **efficiency, design, and procurement choices**
- Encourages consideration of carbon reduction **at an early stage of the design process** to optimise the benefits
- Creates appropriate **governance** structures and processes to reduce GHG emissions
- Meets stakeholder and consumer aspirations through more **ambitious climate and sustainability action**

Consistency and continuity across the project's lifecycle are crucial for effective carbon management in any project. By implementing a proactive whole-life and systems approach early on, it is possible to integrate carbon management throughout the project, resulting in more efficient carbon mitigation and improved sustainability outcomes.

Approach

The figure below presents the high-level CMP approach. The process has been built upon the principles of the PAS 2080 carbon management process and provides a framework that allows parties involved in developing a building or infrastructure project to collaborate to optimise the overall carbon impact of a system, network or asset. The process focuses on project elements where the most effective carbon reduction opportunities can be implemented.

Carbon management is a continual process where carbon reduction opportunities are identified, prioritised, investigated and implemented where feasible. The CMP will be reviewed and updated through an ongoing review process. The Client will provide this CMP to the appointed contractor and communicate the CMP's requirements through the contractual mechanism in place for the project delivery.

	Activity	Output	Timeframe / Responsibility
1	Establish carbon baseline and identify emissions hotspots associated with the project	Whole-life carbon baseline used to inform carbon reduction targets and measures.	Design Carbon Team
2	Identify carbon reduction opportunities	Carbon reduction opportunities for Whole-Life, Capital, Operational and User Carbon emissions recorded within the CMP.	Design Construction Carbon Team, Design Team & Client
3	Prioritise carbon reduction opportunities	A prioritised list of carbon reduction opportunities for Whole-Life, Capital, Operational and User emissions set by priority in the CMP.	Design Construction Carbon Team
4	Establish a series of carbon reduction targets	Carbon reduction targets for Whole-Life, Capital, Operational and User Carbon emissions aligned with client, local and national commitments.	Design Construction Carbon Team
5	Implement carbon reduction opportunities	Update CMP.	Design, Construction, Operation & Maintenance and Decommissioning Design Team & Client
6	Update GHG calculations for reporting; and continuous improvement	A revised carbon footprint to account for changes in emissions, and an assessment of progress towards achieving carbon reduction targets.	Operation & Maintenance Decommissioning Carbon Team & Client

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Instructions

The CMP enables the project team to monitor progress against the carbon reduction targets set for the project. The CMP records decarbonisation opportunities and actions across the project lifecycle that will in time create the appropriate practice and behaviours to deliver against the targets. The status of opportunities, actions and progress against decarbonisation targets are displayed in the ***Dashboard*** tab, which can be used to communicate performance to the project team.

The CMP should be provided to the organisations appointed to deliver each lifecycle stage.

Targets

- Carbon reduction targets should be developed to support delivery of the CMP.
- Targets support decision making by tracking the projects decarbonisation performance throughout its lifecycle.
- Targets should be discussed by the project team during each lifecycle stage to agree what actions should be taken and by who.
- Target performance should be reviewed and updated as the project progresses through design, construction and operation.
- *Note: Given the late stage and retrospective nature of this CMP, target setting might not be appropriate for Phase 1, but should be considered for Phase 2.*

Opportunities

- To achieve the targets, opportunities to reduce carbon should be identified throughout the project lifecycle e.g. during workshops and ongoing discussions.
- Opportunities should be recorded within the ***Opportunities*** tab to aid decision-making (by rating each opportunity based on set criteria) and track the performance of the programme throughout its lifecycle.
- Opportunities should be assigned an owner and fall under one of the following categories: Strategy & Governance, Innovative Design, Lower Carbon Products and Lean Construction Techniques.

Actions

- Opportunities requiring further investigation should be given an action and recorded within the ***Actions*** tab.
- Actions are the activities required to explore and implement opportunities to support delivery against the decarbonisation targets and track carbon performance throughout the project lifecycle.
- Actions should be assigned an owner and regularly reviewed and updated as the project progresses through design, construction and operation.

How to use this spreadsheet

The project team are required to update the CMP throughout each project gateway stage. A Suitably Qualified Carbon Practitioner should review the CMP at each stage to check it is being implemented effectively. The Suitably Qualified Carbon Practitioner should sign off on this review in the Carbon Team Sign-off tab when it has been completed.

Further tabs requiring input at each project stage are outlined below. The other tabs contained within this CMP are for information only.

Select tab below	Description
Carbon Assessment	This tab contains data tables for carbon footprint data to be entered into. Footprints produced to date should be included here. There is also space for future carbon footprints to be added as and when they are produced, when additional carbon footprint data is added, the charts should be updated as required.

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Scheme Summary

The full extent of the proposed Hereford Western Bypass scheme is shown in Figure 1. The scheme consists of two parts; Phase One which forms the focus of this Carbon Management Plan, and Phase Two which is at an earlier stage of scheme development.

Phase One of the bypass will provide a new link road between the A465 and A49 to the south-west of Hereford city centre. It is a 3km long section of rural all-purpose single carriageway, with a design speed of 60mph. The scheme was developed to an advanced stage and received planning permission in 2016 (which remains extant).

Purpose

Phase One of the Hereford Bypass is considered to be the most effective way to deliver a number of key objectives, including:

Network Reliability – Through providing a more direct and reliable route to the Hereford Enterprise Zone/Rotherwas for all users from the south / southwest of Hereford with journey time savings of more than six minutes during the peak periods, following completion of the Phase One scheme.

Reducing Congestion – By relieving pressure on residential routes in the South Wye area, particularly along the A465 Belmont Road, Holme Lacy Road and Walnut Tree Avenue, by reducing daily traffic flows by up to 25%, following completion of the scheme.

Improve Road Safety across the South Wye Area following completion of the scheme through reducing the overall number of accidents within the study area.

Improving air quality and noise levels from road transport on key receptors across South Wye, particularly in the residential Belmont area following completion of the scheme.

Supporting economic growth and business productivity in Hereford through improving the connectivity of the Enterprise Zone and Rotherwas through reduced travel times to increase inward investment jobs growth.

Improve social outcomes across the South Wye area by reducing traffic levels in residential areas and providing an improved environment, following completion of the scheme.

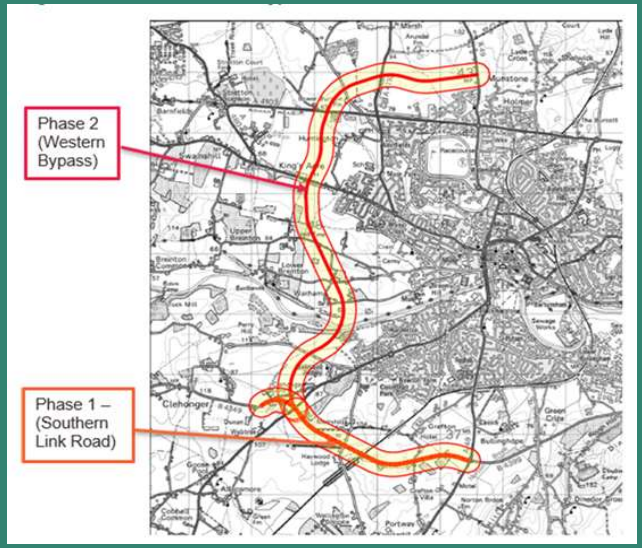


Figure 1: Hereford Bypass Phase 1 & 2.

Source: Scheme Information Report. https://www.herefordshire.gov.uk/media/ftpliccz/hereford-bypass-phase-one-scheme-information-report.pdf

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Policy and Legislation

This tab captures the project specific key legislation, policies, commitments and guidance concerning achieving carbon emissions reductions over the lifetime of the project as outlined below. Further instructions on how to use this tab are provided within the 'Instructions' tab.

Ref.	Type	Name	Description	Reference
1	Carbon Management Guidance	PAS 2080:2023 Carbon Management in Buildings and Infrastructure	PAS 2080:2023 is the specification followed for managing whole life carbon in infrastructure – in the provision, operation, use and end-of-life of new projects or programmes of work as well as the management or retrofit of existing assets and networks. PAS 2080 is targeted at practitioners in these organisations who are responsible for different aspects of delivery in the built environment where carbon management has a role to play.	PAS 2080:2023 | 30 Apr 2023 | BSI Knowledge (bsigroup.com)
2	Carbon Management Guidance	DfT Carbon Management Guidance – Management Case (December 2022)	DfT Carbon Management Guidance explains how DfT uses the HM Treasury 2022 Green Book and supplementary business case guidance when developing transport business cases and preparing advice on spending decisions. It is primarily aimed at those who are involved in developing transport proposals. The Guidance follows the Green Book's five case model, which is the government's best practice model for spending and investment decisions. The Guidance sets out how specific transport-related factors and valuation issues are applied in this context.	DfT Carbon Management Guidance – Management Case Transport business case guidance - GOV.UK (www.gov.uk). https://www.gov.uk/government/publications/transport-business-case/transport-business-case-guidance
3	Carbon Management Guidance	Transport Appraisal Guidance: Unit A3 environmental impact appraisal (May 2025)	The Transport Appraisal Guidance gives guidance on environmental impact appraisal to inform the business case for a transport investment proposal. This TAG unit provides guidance for appropriately qualified environmental practitioners/topic specialists on appraising the impact of transport proposals on the built and natural environment, and on people. When using the guidance in this TAG unit, environmental practitioners/topic specialists should refer to current European and UK legislation, regulations and policy, and best practice.	Transport Appraisal Guidance: Unit A3 environmental impact appraisal TAG: environmental impacts worksheets - GOV.UK (www.gov.uk). https://assets.publishing.service.gov.uk/media/681b6bd143d6699b3c1d29ba/tag-unit-a3-environmental-impact-appraisal.pdf
4	Carbon Management Guidance	Construction Playbook	The Construction Playbook sets out key policies and guidance for how public works projects and programmes are assessed, procured and delivered. The Playbook sets out policies which aim to: - Set clear and appropriate outcome-based specifications; - Favour longer term contracting across portfolios; - Standardise designs; - Drive innovation; - Create sustainable contracting arrangements that incentivise better social, economic and environmental outcomes; - Embed social value; and - Increase the speed of end-to-end project and programme delivery.	Construction Playbook The Construction Playbook – September 2022 (publishing.service.gov.uk)
5	International	The Paris agreement	Published by the United Nations Framework Convention on Climate Change (UNFCCC), the Paris Agreement is a framework for facilitating a global response to the threat of climate change and keeping global temperature rise this century well below 2ºC above pre-industrial levels. A more ambitious aim within the Paris Agreement is limiting the temperature increase to 1.5ºC.	United Nations Framework Convention on Climate Change (UNFCCC; 2015). The Paris Agreement: https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement
6	National	The Climate Change Act 2008 (2050 Target Amendment) Order 2019	In June 2019, the UK Government adopted the Climate Change Act 2008 (2050 Target Amendment) Order 2019. This amended the Climate Change Act 2008 which set the target for the UK to achieve an 80% reduction of GHG emissions by 2050 (compared to 1990 levels). It also, more ambitiously, revised the target intending to achieve a reduction of 100% (net zero carbon) target by 2050. Achieving the revised net zero carbon target will require future GHG emissions to fall within the sixth carbon budget ceiling established by Government (i.e., either avoided or offset). The Sixth Carbon Budget, required under the Climate Change Act, will advise Ministers on the volume of GHGs the UK can emit during 2033-2037. The sixth budget is imposed by The Carbon Budget Order 2021 setting the budget for the same budgetary period at 965 million tonnes of carbon dioxide equivalent (MtCO2e). These carbon budgets set a cap on the maximum level of net carbon produced by the UK for a five-year budgetary period. This will set the path to the UK's net zero emissions target in 2050, as the first carbon budget to be set into law following that commitment. The Committee on Climate Change (CCC) recently stated that, "[It]… will revise its assessment of the appropriate path for emissions over the period to 2050 as part of its advice next year on the sixth carbon budget." Whilst some tightening of the current carbon budgets is likely to occur when they are reviewed and revised later this year, to reflect the recent commitment to a net zero carbon economy by 2050, the CCC has indicated that the trajectory will be steeper over time; therefore, it is the later carbon budgets rather than near term ones which will see more stringent reductions.	HMSO (2019) The Climate Change Act 2008 (2050 Target Amendment) Order 2019: The Climate Change Act 2008 (2050 Target Amendment) Order 2019 (legislation.gov.uk)

7	National	The Carbon Budget Order 2021	The Carbon Budget Order 2021 imposes the sixth carbon budget, setting the budget for the same budgetary period (2033-2037) at 965 million tonnes of carbon dioxide equivalent ($MtCO_2e$). Emission limits for the 4th, 5th and 6th carbon budget periods are set by the Climate Change Act to date. The emissions limits provided for the 7th, 8th, and 9th budget periods indicate what is likely based on data published by the CCC and have not been passed into law. The CCC published guidance for the 7th carbon budget in February 2025, which has not yet been ratified into law by the government.	The Carbon Budget Order 2021. S2021/750. The Carbon Budget Order 2021 (legislation.gov.uk)The Carbon Budget Order 2021 (legislation.gov.uk) https://www.theccc.org.uk/publication/the-seventh-carbon-budget/
8	National	DfT, National Policy Statement for National Networks (May 2024)	The Secretary of State will use this policy statement as the primary basis for making decisions on development consent applications for NSIPs on the national road networks in England. The policy states that carbon impacts need to be considered as part of the appraisal of scheme options (in the business case), before submitting an application for Development Consent Order (DCO). Where the development is subject to Environmental Impact Assessment (EIA), any Environmental Statement will need to describe an assessment of any likely significant climate factors following the requirements in the EIA Directive. Applicants should provide evidence of the carbon impact of the project and an assessment against the Government's carbon budgets. Evidence of appropriate mitigation measures in both design and construction should be presented. The project's impact on the Government's ability to meet its carbon reduction targets will be a material factor in the decision-making process. The Secretary of State for Transport has committed to a review of this policy in light of the net zero target.	Department for Transport (2024) National NetworksNational Policy Statement: https://assets.publishing.service.gov.uk/media/65e9c5ac62ff48001a87b373/national-networks-national-policy-statement-web.pdf
9	National	National Planning Policy Framework (NPPF)	The NPPF, published in March 2012 and recently revised in December 2024 and Feb 2025, sets out the Government's planning policies for England and how these are expected to be applied. The NPPF states that planning systems should support the transition to a low carbon economy through: -making effective use of land - minimising waste and pollution - mitigating and adapting to climate change - supporting renewable energy and associated infrastructure	National Planning Policy Framework. Ministry of Housing, Communities & Local Government (2012). https://assets.publishing.service.gov.uk/media/67aafe8f3b41f783cca46251/NPPF_December_2024.pdf
10	National	National Planning Practice Guidance (PPG) on Climate Change	This PPG for Climate Change advises identifying and implementing suitable mitigation and adaptation measures in the planning process.	National Planning Practice Guidance on Climate Change. Department for Levelling Up, Housing and Communities and Ministry of Housing, Communities & Local Government (DLUHC) (2014). https://www.gov.uk/guidance/climate-change
11	National	Decarbonising Transport: A Better, Greener Britain (July 2021)	This plan sets out the Department for Transport's commitments and the actions needed to decarbonise UK transport to net zero by 2050. Key road-network elements of the department's decarbonisation plan include: - Increasing cycling and walking; - Facilitating ultra-low or zero emission buses from 2025; - Phased removal of all emissions from road transport (cars, vans, motorcycles and scooters). This includes all new cars and vans being zero emission at tailpipe by 2035, and ending the sale of non-zero emission HGVs by 2040; - Investing in local transport systems to allow local authorities to invest in local road priorities including those relating to reducing congestion and improving air quality; - Driving local level transport decarbonisation by making carbon reductions a fundamental part of local transport planning and funding; - Reviewing and maximising the use of low carbon fuels, including hydrogen; - Improving road travel efficiency (e.g. car clubs, sustainable travel reward schemes); and - Investing in R&D to support transport decarbonisation plans.	Decarbonising transport: a better, greener Britain: https://www.gov.uk/government/publications/transport-decarbonisation-plan
12	National	DfT Operational Sustainability Strategy 2021 – 2025 [still the current version - however successor strategy is expected]	Sets out the internal actions the DfT will take to improve operational sustainability performance up until 2025. It states, ' For any major projects requiring funding decisions, business cases will be produced to assess the cost-benefit across all three pillars of sustainability (economic, social, and environmental). All business cases will follow HMT's Green Book guidance and will use the methodology outlined for valuing the financial cost of carbon emissions to help present the environmental benefit in an easily comparable format. Business cases will be presented to senior management for approval before project implementation.'	DfT operational sustainability strategy 2021 to 2025: https://www.gov.uk/government/publications/dft-operational-sustainability-strategy-2021-to-2025#:~:text=Details,with%20the%20Greening%20Government%20Commitments
13	Local	Aiming for 2030: Herefordshire Council Carbon Management Plan 2026/27-2030/31	The Herefordshire Council Carbon Management Plan (2026/27–2030/31) provides a clear framework for quantifying and reducing emissions across council operations, including infrastructure-related activities such as highways and public realm services. It adopts a structured approach based on the Greenhouse Gas Protocol and highlights the significant role of contracted services—such as the Public Realm contract—in contributing to overall emissions, underlining the importance of embedding carbon management within procurement and delivery of infrastructure schemes. The plan also identifies practical measures directly relevant to road schemes, including fleet decarbonisation, low-carbon fuels, energy-efficient street lighting, and the integration of emissions reduction requirements into contracts. This approach reinforces the need for infrastructure projects to consider whole-life carbon, minimise emissions through design and construction, and align with the council's wider net zero and environmental objectives.	Herefordshire Council Carbon Management Plan 2026/27-2030/31: https://councillors.herefordshire.gov.uk/documents/s50133887/Appendix%201%20for%20Carbon%20Management%20Plan%20202627-203031.pdf

14	Local	Local Transport Plan 5 2025-2041 Final LTP	The Herefordshire Local Transport Plan 5 (2025–2041) establishes the strategic framework for transport investment and infrastructure delivery across the county, with a strong emphasis on supporting environmental objectives and addressing climate change. The plan promotes a shift towards lower-carbon travel, including increased provision for walking, cycling and public transport, alongside the rollout of zero-emission vehicles and supporting infrastructure such as EV charging. This direction reinforces the expectation that new road schemes should be planned and delivered in a way that minimises carbon impacts and supports the transition to a net zero transport system. LTP5 emphasises the role of infrastructure design in enabling behavioural change, improving air quality, and supporting wider environmental and health outcomes. As such, the plan provides a clear policy basis for requiring road schemes to adopt a whole-life carbon approach, ensuring that both construction (embodied carbon) and operational impacts are minimised, and that schemes contribute positively to the decarbonisation of the local transport network.	Local Transport Plan 5 2025-2041: https://www.herefordshire.gov.uk/media/alxnj2fo/local-transport-plan-5-ltp5-2025-2041.pdf
If required, add new rows above this row.				

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Governance and RACI Matrix

This tab captures the project specific RACI. Further instructions on how to use this tab are provided within the 'Instructions' tab.

Roles and Responsibilities

Select Role from drop-down	Responsibilities
Project Manager	- Setting and monitoring carbon targets - Liaising with local authorities - Engaging with the appointed design manager and construction manager - Overall responsibility for implementation of CMP throughout the project lifecycle, including overseeing and reviewing CMP implementation during the use stage.

Key		
R	**Responsible**	Main responsibility/ doer of the activity.
A	**Accountable**	The value chain member is accountable for ensuring the activity is completed to the level required.
C	**Consulted**	Value chain member who is actively engaged and contributes input to the doer of the activity.
I	**Informed**	Value chain member who is kept aware of how and when the activity is being completed and is ready to provide inputs if necessary.

RACI Matrix

CMP activities				Carbon Team	Designer	Contractor	Client	Named individual(s) responsible
				AECOM	AtkinsRealis	Graham	Herefordshire Council	
1	**Establish the embodied carbon baseline**		Establish carbon baseline and identify emission hotspots.	R	C	N/A	AI	
2	**Identify carbon reduction opportunities**		Facilitate early identification of opportunities to deliver carbon reduction solutions and drive innovation throughout the project lifecycle.	R	R	R	AI	
3	**Prioritise carbon reduction opportunities**		Prioritise carbon reduction opportunities based on their significance and alignment with local policies and targets.	R	C	C	AI	
4	**Establish carbon reduction targets**		Establish a series of carbon reduction targets influenced by the carbon baseline and carbon reduction opportunities set out in Activities 1-3. *- Note: Given the late stage and retrospecive nature of this CMP, this might not be appropriate*	R	C	C	AI	
5	**Implement carbon reduction opportunities**	**Design**	Implementing carbon reduction opportunities across design phases.	C	R	C	AI	
		Construction	Ongoing evaluation of the carbon emissions associated with the product and construction phases of each lifecycle stage.	C	C	R	AI	
		Operation	Ongoing evaluation and monitoring of the carbon emissions associated with the use and operations of each lifecycle stage.	N/A	N/A	N/A	RA	
6	**Monitoring and Reporting**		Ongoing review and identification of opportunities and actions to deliver targets and monthly review of the CMP by project team.	C	R	R	AI	

Delivery

This tab outlines the delivery process of the CMP and key enablers to drive effective implementation of the CMP process across the project lifecyle.

The diagram below outlines key enablers to aid implementation of the CMP across the project lifecycle. The ongoing delivery of the CMP throughout the project lifecycle enables effective monitoring and reporting of progress against carbon reduction goals.

1 Contracts

- Requirements and responsibilities necessary for implementing the CMP will be written into contractual agreements, including suppliers and service providers.
- Reporting progress against the agreed carbon targets will be written into the contract of those responsible for delivery.
- Key contractual clauses relevant to the above will be documented within the specification and contract documents issued to the contractor at the tender stage.

2 Collaboration

- Where performance against a particular target is challenging, a collaborative approach between all involved in target delivery will be necessary to identify additional/ alternative actions to meet the target and/ or identify a more appropriate target to reflect factors outside of the control of the project e.g., policy changes.
- Collaboration will be key for effectively exploring and implementing carbon reduction opportunities identified, and also for identifying further opportunities for carbon reduction.

3 Communication

- The CMP will be shared and communicated with key stakeholders throughout the project lifecycle via the project steering group and board.
- Progress made exploring options and implementing actions will also be communicated (for example during periodic design meetings) to allow this tracker to be updated, keeping it up-to-date and representative of the current picture.

4 Training

- The project team shall undertake the necessary training to enable them to manage carbon across the project. National initiatives such as the Carbon Literacy Project or equivalent provide carbon training courses.
- The design consultant shall undertake necessary training to ensure that all designers on the project are sufficiently cognisant of their role in designing out carbon on the project. This can be achieved through relevant in-house training or through external projects provided through professional bodies such as the Institution of Civil Engineers. Toolbox Talks should be provided to all operatives on site to assist with the identification and implementation of specific task-related carbon reduction opportunities during construction.
- The person responsible for carbon with both the design consultant and principal contractor shall be sufficiently trained to manage and report on carbon and shall maintain appropriate continuing personal development (CPD) for the role. This includes maintaining a sound working knowledge of PAS 2080 and relevant carbon accounting standards. Training needs will be identified within the project team following training needs analysis, and implemented as appropriate.

5 Delivery of the CMP

6 Monitoring & Reporting

To support monitoring and review activities, the CMP will be 'owned' by the client and reviewed and refreshed at appropriate points during the project lifecycle, for example project milestones or significant events e.g., changes to external policy or major performance issues/ improvements. The client will be supported during the design and planning stage by the project's designer, and during the construction stage by the principal contractor. With specific regard to carbon, the monitoring and review activities necessary for the successful implementation of the CMP include:

- Review and update of the CMP (at quarterly intervals);
- Review progress of carbon reduction opportunity implementation;
- Identify new carbon reduction opportunities;
- Assess feasibility of carbon reduction opportunities;
- Incorporate feasible carbon reduction opportunities into design and construction plans and procurement;
- Update GHG emissions calculations (e.g. at the end of each project stage), to reflect changes related to more accurate activity data and implementation of carbon reduction opportunities; and
- Assess progress against targets (e.g. at the end of each project stage).

The design consultant and principal contractor will agree on the use of an appropriate carbon accounting methodology or tool with the client. The calculations should provide adequate transparency of the carbon accounting approach, be proportional, and be aligned to PAS 2080.

The principal contractor will supply evidence to support compensation events that could positively or negatively impact on the carbon baseline for consideration by the client.

The principal contractor will provide a carbon close-out report upon project completion. This report shall compare the projected construction carbon outturn against the estimated baseline and include commentary on any differences and lessons learned.

Opportunities and Actions Dashboard

This tab is automated and provides an overview of the carbon reduction opportunities and actions associated with the project.

Headlines

Number of opportunities	33
Number of open actions	0

Information: Categorisation of Opportunities

Click + button on the left to reveal

Information: Prioritisation of Opportunities

Click + button on the left to reveal

Opportunities - Overview

The number of opportunities identified for each category within the 'Opportunities' tab are displayed below.

Green bars represent opportunities that have been implemented
Blue bars represent opportunities that have been committed
Yellow bars represent opportunities under consideration and need to be further explored
Dark Grey bars represent opportunities that will not be taken forward (i.e. archived)
Grey bars represent opportunities that have not been assigned a status (implemented, committed, under consideration or archived)

The 'Opportunities' tab also includes a field to capture any supporting commentary that has informed the categorisation of the opportunity.

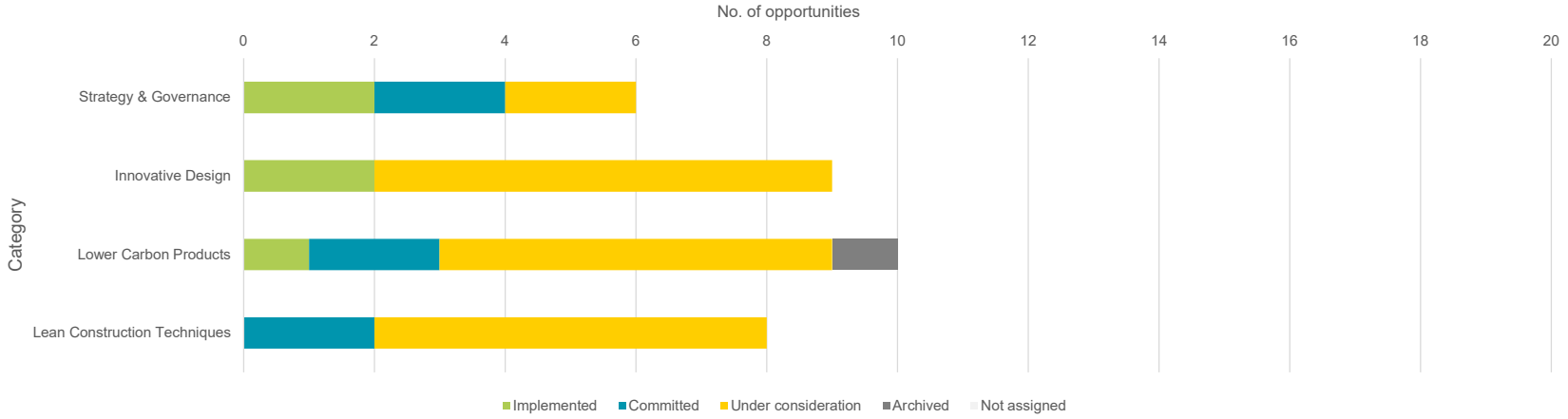
Overview of categories:

Strategy & Governance: incentivise carbon reduction across all forms of project governance, embed decarbonisation into procurement, project delivery and challenge existing standards to encourage low-carbon innovation.

Innovative Design: using smart design to reduce material requirements, extend design life and reconfigure existing assets, rather than building from scratch.

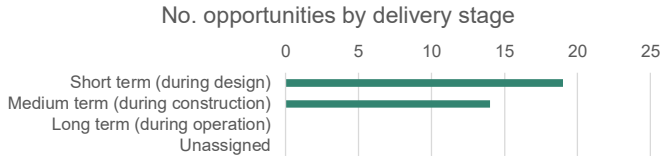
Lower Carbon Products: choosing lower carbon materials for use in construction such as recycled aggregates, cement replacements, and glass reinforced plastic (GRP).

Lean Construction Techniques: use of smart construction techniques that reduce the carbon impact of the construction phase, often involving the use of alternative fuels and power such as solar, and off site fabrication to reduce material consumption and waste.

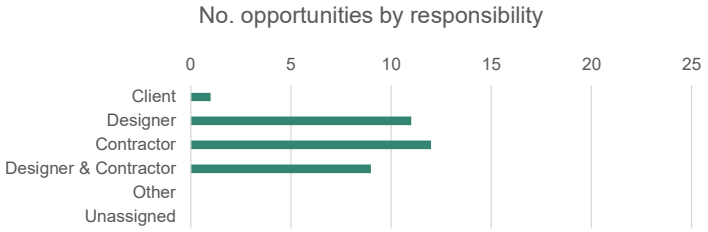


Category	Total no. opportunities	Status				
		Implemented	Committed	Under consideration	Archived	Not assigned
Strategy & Governance	6	2	2	2	0	0
Innovative Design	9	2	0	7	0	0
Lower Carbon Products	10	1	2	6	1	0
Lean Construction Techniques	8	0	2	6	0	0
	33	**5**	**6**	**21**	**1**	**0**
Total no. opportunities	**33**					
No. opportunities not assigned to a category	**0**					

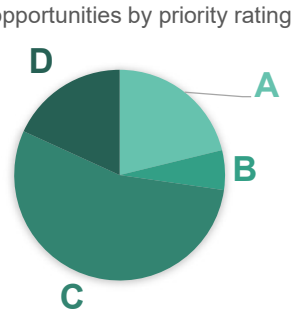
Delivery timeframe	Total no. opportunities
Short term (during design)	19
Medium term (during construction)	14
Long term (during operation)	0
Total no. of opportunities assigned to a delivery timeframe	33
Unassigned	0



Responsible for investigation and delivery	Total no. opportunities
Client	1
Designer	11
Contractor	12
Designer & Contractor	9
Other	0
Total no. of opportunities assigned responsibility	33
Unassigned	0



Priority rating	Total no. opportunities
A	7
B	2
C	18
D	6
Total no. of opportunities assigned a rating	33
Unassigned	0

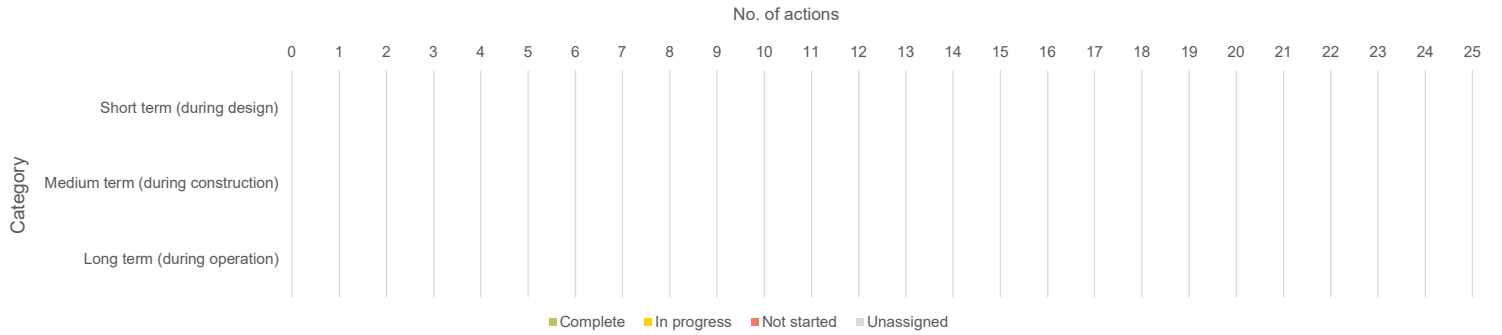


Actions - Overview

The progress of actions designated as short, medium and long term within the 'Actions' tab are displayed below.

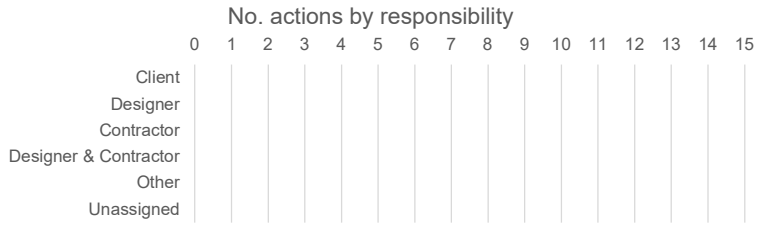
Green bars represent actions that are complete
Yellow bars represent actions that are in progress
Red bars represent actions that have not yet been started
Grey bars represent actions that have not been assigned a status (complete, in progress or not started)

The 'Actions' tab also includes a field to capture any supporting commentary for investigation and delivery of each action.



Delivery timeframe	Total no. actions assigned status	Status			
		Complete	In progress	Not started	Unassigned
Short term (during design)	0	0	0	0	0
Medium term (during construction)	0	0	0	0	0
Long term (during operation)	0	0	0	0	0
Total no. actions	**0**	**0**	**0**	**0**	**0**
No. actions not assigned to a category	**0**				

Responsible for investigation and delivery	Total no. actions
Client	0
Designer	0
Contractor	0
Designer & Contractor	0
Other	0
Total no. of actions assigned responsibility	**0**
Unassigned	**0**



Carbon Assessment

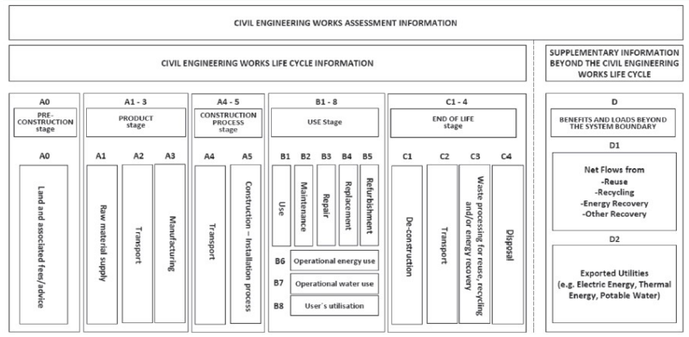
This tab provides an overview of the baseline results of the carbon assessment.

Carbon Baseline Overview

The GHG Assessment has been undertaken in line with the GHG Protocol and PAS 2080:2023 GHG quantification requirements. GHG emissions are broken down by the BS EN 17472 lifecycle stages presented to the right. The focus of this assessment is on the GHG emissions associated with construction, with some quantification of operational emissions where possible. The emissions during construction are considered to be within the direct control of the scheme. While it is possible to influence operational GHG emissions such as road user emissions through the design, these are considered outside the direct control of the scheme.

The tables and the graphs below provide the estimated project lifecycle carbon footprint for each of the project's design stage. The carbon footprints indicate the main project carbon hotspots, commonly the embodied carbon in the raw materials and emissions associated with their transportation. Construction activities and ongoing maintenance and replacement of assets during operation also contribute to the carbon footprint.

Select Figure	Information Displayed	Key Details
Figure 3	Cumulative Whole-Life Carbon Emissions	With an initial spike in emissions at the construction stage from the embodied carbon, transportation and construction activities, followed by a gradual increase in cumulative emissions over the operational lifetime of the scheme. These operational emissions are from the maintenance and replacement of assets during operation. These operational emissions are considered to represent a worst-case scenario, as the modelling has not fully accounted for expected decarbonisation of materials, transportation, construction activities, or the UK power grid over the operational lifetime, which will need to happen if the UK is to meet its 2050 net zero emissions target.



Source: BS EN 17472: 2023

Figure 1 - Whole life (60 years) GHG Emissions (tCO_2e)

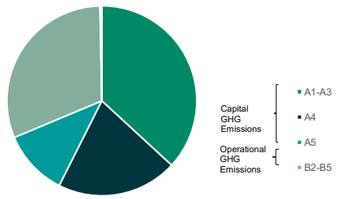


Figure 2 - Embodied Carbon Breakdown by Material Type (tCO_2e)

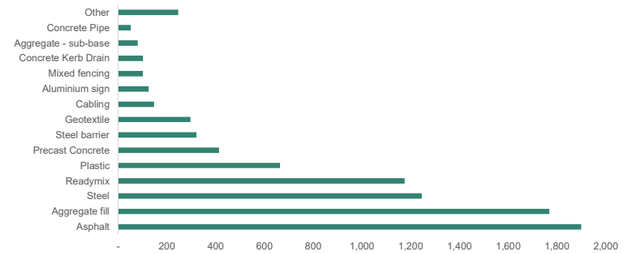
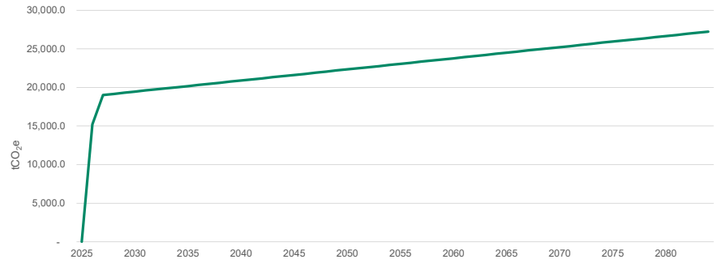


Figure 3 - Cumulative Emissions (tCO_2e) (Whole Life - 60 years)



FBC Design

| | | PAS 2080 Lifecycle Stage | Baseline Emissions (tCO2e) (Whole Life - 60 years) | RICS Uncertainty Factors (%) | Uplifted Baseline Emissions (tCO2e) (Whole Life - 60 years) | Annual Emission (tCO2e) | | |

Material Breakdown - Carbon Hotspots

Material	FBC Design		As Built	
	Embodied Carbon (tCO_2e)	% Embodied Carbon	Embodied Carbon (tCO_2e)	Percentage (%)
Asphalt	1,899.7	22.0%		0%
Aggregate fill	1,768.1	20.5%		0%
Steel	1,245.2	14.4%		0%
Readymix	1,175.2	13.6%		0%
Plastic	664.0	7.7%		0%
Precast Concrete	413.6	4.8%		0%
Steel barrier	320.7	3.7%		0%
Geotextile	297.0	3.4%		0%
Cabling	147.6	1.7%		0%
Aluminium sign	125.9	1.5%		0%
Mixed fencing	101.5	1.2%		0%
Concrete Kerb Drain	101.1	1.2%		0%
Aggregate - sub-base	80.8	0.9%		0%
Concrete Pipe	51.2	0.6%		0%
Other	246.4	2.9%		0%
Total Emissions (tCO_2e)	**8,638**	**100%**	**-**	

PAS 2080 Lifecycle Stage % of Baseline

PAS 2080 Lifecycle Stage			Baseline Emissions (tCO_2e)	% baseline emissions
Before Use Stage	**A0**	**Preconstruction Stage**	-	-
	A1-A3	**Before Use Stage**	8,638	37%
	A4	**Transport**	4,814	21%
	A5	**Construction - Installation process**	2,647	11%
Use Stage	**B2-B5**	**Maintenance, repair, replacement, refurbishment**	7,257	31%
	B6	**Operational Energy Use**	74	0%
	B8	**User's utilisation**	-	-
Total			23,429	

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Opportunities

This tab captures the carbon reduction opportunities associated with the project. This process aids decision-making (by rating each opportunity based on set criteria) and track the performance of the programme throughout its lifecycle.

Ref.	Opportunity	Description	Category	Responsible for investigation and delivery	Impact potential: - Low - High	Ease of implementation: - Difficult - Easy	Priority rating (impact vs implementation)	Delivery timeframe (short, medium or long term)	Action identified? (Y/ N)	Status	Comment
	(Input the opportunity)	*(Provide a description for the opportunity)*	*(Select the relevant carbon reduction hierarchy category)*	*(Select the responsible stakeholder)*	*(Indicate the considered effectiveness)*	*(Indicate the considered ease of implementation)*	*(Automatically populated)*	*(Select the appropriate projected delivery timeframe)*	*(Indicate if actions are required for implementation)*	*(Select the current status. If an opportunity is 'archived', approval is needed from xxx)*	*(Provide comments to support opportunity selection)*
Opp-01	Early integration of carbon reduction measures in the design	Designers to push for low carbon measures in design early where possible by holding design review meetings to identify and discuss carbon reduction opportunities. Also engage early with supply chain partners and contractors to identify carbon reduction opportunities.	Strategy & Governance	Designer	High	Difficult	B	Short term (during design)	No	Under consideration	This will be difficult to implement at this stage given how far through the design is now.
Opp-02	Challenge design standards specifications to drive low-carbon innovations	Question conventional standards and specifications where they conflict with low-carbon outcomes.	Strategy & Governance	Designer	High	Easy	A	Short term (during design)	No	Under consideration	Value engineering exercise undertaken. Some departures from standards.
Opp-03	Reduce congestion along A465 and Holme Lacy Road	Increasing attractiveness of bus and active travel schemes and reducing traffic flows is a fundamental aim of the project. This can be done through improved bus priority measures, enhanced walking and cycling infrastructure, safer and more direct routes and, prioritised signaling.	Strategy & Governance	Designer	High	Easy	A	Short term (during design)	No	Implemented	Implemented - this is what the scheme will be achieving.
Opp-04	Include carbon-related reductions within the contracts	Include measurable carbon targets and KPIs and performance reporting requirements in all procurement frameworks and supply chain contracts to reinforce delivery of reductions during construction.	Strategy & Governance	Client	High	Easy	A	Short term (during design)	No	Implemented	Incentives in Grahams contracts they set e.g. minimising idling
Opp-05	Develop a waste management strategy	Prioritise prevention and set clear targets for diverting construction waste from landfill. Minimise waste generation, maximise reuse on site where possible, and recycle waste materials, in line with the waste hierarchy.	Strategy & Governance	Designer & Contractor	Low	Easy	C	Medium term (during construction)	No	Committed	Grahams will be doing one
Opp-06	Encourage engagement with carbon reduction across the workforce	Embed carbon reduction behaviours within site operating procedures and a Construction Trave Plan, encouraging engagement through measures such as active travel, car sharing, and efficient site access arrangements.	Strategy & Governance	Designer & Contractor	Low	Easy	C	Medium term (during construction)	No	Committed	Will be encouraged by Grahams - policies in place
Opp-07	Use of ACLA in base and binder asphalt layers	Adopt ACLA within lower pavement layers as part of value engineering to reduce embodied carbon. This creates a carbon sink and potential carbon neutral material, and could increase asphalt life but there is no evidence yet.	Innovative Design	Designer	High	Difficult	B	Short term (during design)	No	Under consideration	ACLA has been explored on the project as one of many solutions in the value engineering and has been raised with Herefordshire council.
Opp-08	Substitute concrete retaining structures with reinforced earth	Use of reinforced earth instead of precast or in-situ concrete.	Innovative Design	Designer	High	Easy	A	Short term (during design)	No	Under consideration	Being looked at through value engineering. Some reinforced earth already in the design, but possible planning constraints around others.
Opp-09	Minimise total surfaced area	Reduce fully surfaced carriageway width, e.g. by using hard strips in place of full-width surfacing.	Innovative Design	Designer	High	Easy	A	Short term (during design)	No	Under consideration	Part of value engineering - linked to Opp-14
Opp-10	Plant trees and limit their removal	Minimise vegetation removal. Where unavoidable, offset through targeted planting of suitable species.	Innovative Design	Designer	Low	Difficult	D	Short term (during design)	No	Under consideration	Extensive landscaping works alongside the scheme. However, planning permissions was granted before Biodiversity Net Gain was a requirement, so there's limited opportunity given how mature the design is
Opp-11	Use driven posts for steel safety barriers	Specify driven posts for steel barriers to reduce concrete requirements.	Innovative Design	Designer	Low	Difficult	D	Short term (during design)	No	Under consideration	Will be using driven posts where possible, but there are concerns around appropriateness for the design.
Opp-12	Design for Manufacture & Assembly (DFMA)	Maximise potential for offsite and modular fabrication, prioritising precast concrete elements such as headwalls and underpasses, to reduce site waste and construction activities.	Innovative Design	Designer	Low	Easy	C	Short term (during design)	No	Under consideration	Maximise opportunities for offsite and modular fabrication, particularly for headwalls and underpasses, wherever practicable.
Opp-13	Incorporate innovative drainage products such as Fildrain	Incorporate products such as Fildrain to replace traditional drainage blankets, reducing the need for imported quarry materials. Fildrain offers ease of transport, lower weight, and reduced material usage.	Innovative Design	Designer & Contractor	Low	Easy	C	Short term (during design)	No	Under consideration	Its suitability for this scheme will be assessed.
Opp-14	Streamline design and alignment to reduce material demand	Review geometry and structure sizes to reduce earthworks volumes and material requirements.	Innovative Design	Designer & Contractor	Low	Easy	C	Medium term (during construction)	No	Implemented	Already included in value engineering. Some minor tweaks have been implemented
Opp-15	Reduce embankment height	Reduce embankment height, where possible, to minimise the volume of imported fill and associated earthworks.	Innovative Design	Designer	Low	Easy	C	Short term (during design)	No	Implemented	Minor tweaks made through value engineering - linked to Opp-14
Opp-16	Optimise foundation types	Foundation design to prioritise structures with pads rather than piling to reduce carbon, cost and complexity.	Lower Carbon Products	Designer & Contractor	High	Easy	A	Short term (during design)	No	Implemented	Pavement design had already been optimised already and implemented in the scheme.
Opp-17	Reuse waste materials on site or locally	Reuse excavated material from site where possible to minimise off-site disposal and import quantities.	Lower Carbon Products	Contractor	High	Easy	A	Short term (during design)	No	Under consideration	This will be considered
Opp-18	Use of recycled plastic kerbs	Consider use of recycled plastic kerbs which are manufactured from plastic waste and have lower embodied carbon compared to concrete. They are lighter weight, durable and resistant to rot and corrosion.	Lower Carbon Products	Designer	Low	Difficult	D	Short term (during design)	No	Archived	Issues with long term maintenance - unlikely to be taken forward.
Opp-19	Use of unbound pavements on accesses	Use of unbound pavements on accesses where possible	Lower Carbon Products	Designer & Contractor	Low	Difficult	D	Short term (during design)	No	Under consideration	Some access roads required, so unbound to be prioritised if possible. Requires landowner agreements so could be difficult.
Opp-20	Use recycled asphalt (RA) in asphalt mixtures	Use recycled asphalt (RA) in asphalt mixtures to reduce the need for virgin materials	Lower Carbon Products	Designer & Contractor	Low	Easy	C	Short term (during design)	No	Under consideration	To be considered alongside ACLA - being discussed in VE and needs to be discussed with Herefordshire
Opp-21	Procure local goods and services	Procure local goods and services to reduce transportation emissions	Lower Carbon Products	Designer & Contractor	Low	Easy	C	Short term (during design)	No	Committed	Will be done as standard
Opp-22	Use warm mix asphalts	Use warm mix asphalts to reduce fuel use on site	Lower Carbon Products	Contractor	Low	Easy	C	Medium term (during construction)	No	Under consideration	Fairly standard these days
Opp-23	Do not over-specify concrete compressive strength	Do not over-specify concrete compressive strength in design to minimise embodied carbon	Lower Carbon Products	Designer & Contractor	Low	Easy	C	Short term (during design)	No	Committed	Standard practice - this will be considered

Opp-24	Use recycled fill materials	Use recycled fill materials (Class 1A, 6F2 etc.) to limit quarrying of virgin aggregates. Transportation distance should be considered though as transporting recycled aggregates over large distances could actually be higher carbon than local virgin material	Lower Carbon Products	Contractor	Low	Easy	C	Medium term (during construction)	No	Under consideration	Transportation distance should be considered as transporting recycled aggregates over large distances could actually be higher carbon than local virgin material
Opp-25	Consider low carbon cement replacements	Consider low carbon cement replacements to reduce embodied carbon	Lower Carbon Products	Contractor	Low	Easy	C	Medium term (during construction)	No	Under consideration	This will be considered, although possible applications may be limited given then nature of the design
Opp-26	Work towards zero earthworks waste	Work towards zero earthworks waste to minimise emissions associated with disposal	Lean Construction Techniques	Contractor	Low	Easy	C	Medium term (during construction)	No	Committed	Already being done - will be further considered
Opp-27	Temporary traffic management optimisation	Minimum traffic management on public roads. Minimising disruptions and therefore traffic and idling.	Lean Construction Techniques	Contractor	Low	Difficult	D	Medium term (during construction)	No	Under consideration	
Opp-28	Minimise use of diesel generators	Avoid diesel generators; use grid electricity wherever possible	Lean Construction Techniques	Contractor	Low	Easy	C	Medium term (during construction)	No	Under consideration	Going to try to connect to the grid, pending permissions etc. - to be explored further
Opp-29	Integrated site compound layout and use of stabilised materials	Use of stabilised materials for compounds and access roads. One larger setup using stabilised soils for access roads etc., rather than blacktop	Lean Construction Techniques	Contractor	Low	Difficult	D	Medium term (during construction)	No	Under consideration	Easy enough in practice, but depends on client appetite
Opp-30	Use of existing local sewer connections	Use of existing local sewer connections for site compounds	Lean Construction Techniques	Contractor	Low	Easy	C	Medium term (during construction)	No	Under consideration	This will be explored, but low carbon impact
Opp-31	Use HVO fuel/ electricity for construction plant and generators	Use HVO fuel/ electricity for construction plant and generators to reduce emissions	Lean Construction Techniques	Contractor	Low	Easy	C	Medium term (during construction)	No	Under consideration	Telehandlers etc. could be possible, but possibly harder for larger materials handling equipment
Opp-32	Use of modern low-emission plant and equipment	Use efficient engines and emissions control technologies (e.g. AdBlue/Selective Catalytic Reduction systems) to reduce exhaust emissions.	Lean Construction Techniques	Contractor	Low	Easy	C	Medium term (during construction)	No	Under consideration	
Opp-33	Optimise earthworks logistics	Optimise earthworks planning to avoid double handling/ movement. Maul Haul optimisations minimise haul routes	Lean Construction Techniques	Contractor	Low	Easy	C	Medium term (during construction)	No	Committed	Already underway - will be considered further

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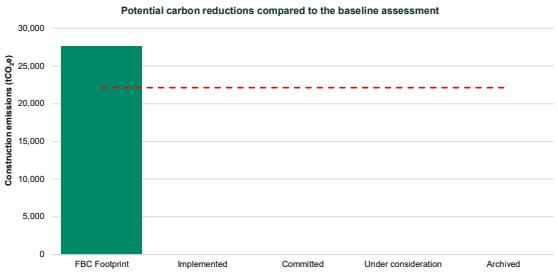
Decarbonisation Trajectory

This tab is automated and provides an overview of the carbon baseline emissions and potential decarbonisation resulting from the carbon reduction opportunities identified (where it is possible to quantify carbon reductions).

Decarbonisation Trajectory

The chart below presents the carbon baseline and potential carbon reduction reductions based on the status of individual opportunities. The red line represents the carbon reduction target, and quantified opportunities represent the pathway towards achieving it. Opportunities categorised as "committed", "under consideration", or "archived", have been included to demonstrate savings that might be achievable in the future. This tab provides an overview of the collective impact of all carbon reduction opportunities.

The total emissions savings presented in this tab may include double counting, as some opportunities overlap and target the same emission sources. To avoid duplication, opportunities should be evaluated in isolation to understand their specific impact. For a detailed breakdown of individual opportunities and their estimated savings, please refer to the 'Opportunities' tab. To avoid duplication, opportunities should be reviewed regularly and assessed independently to ensure accurate impact quantification. Overlapping opportunities must be clearly distinguished to maintain a reliable decarbonisation trajectory.



Opportunities	Potential Saving (tCO_2e)	Comment
Design	-	*Total of options in design stage*
Construction	-	*Total of options construction stage*
Operation and Maintenance	-	*Total of options in operation and maintenance*
Decommission	-	*Total of options in decommissioning*
All stages	-	*Total of options across all stages*

Opportunities	Potential Saving (tCO_2e)	Comment
Implemented	-	*Total of options implemented*
Committed	-	*Total of options committed*
Under consideration	-	*Total of options under consideration*
Archived	-	*Total of archived options*
Options (excl. archived)	-	*Carbon savings based on opportunities drawn through*

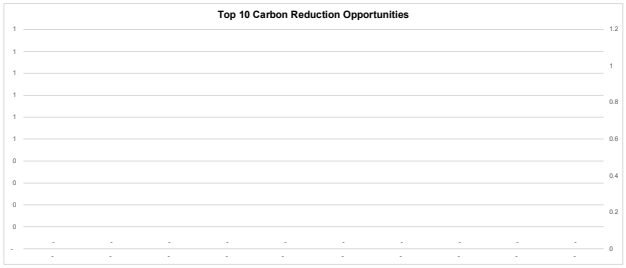
Scenario	Emissions (tCO_2e)	Comment
FBC Footprint	**27,673**	*Emissions based on FBC design.*
Implemented	27,673	*Emission based on options implemented*
Committed	27,673	*Emission based on options committed and implemented*
Under consideration	27,673	*Emission with carbon savings based on opportunities drawn through*
Target	22,139	*Emission based on Target reduction percentage*

Percentage Reduction	20	%

Click on arrows on slider to choose % reduction

A target to reduce whole-life carbon by 30% compared to the baseline represents an achievable target, but one that requires some further work to be achieved.

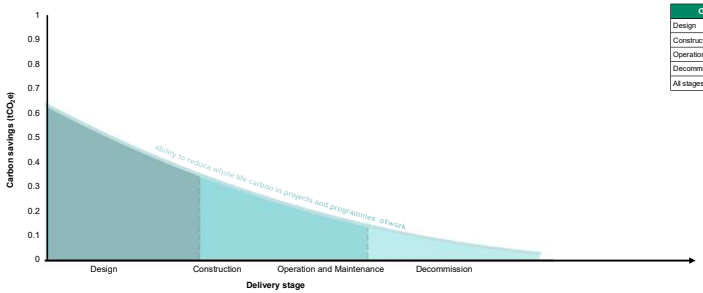
The chart below presents the top 10 carbon reduction opportunities identified in this project.



Top 10 opportunities

ID	Opportunity	Carbon saving	%of saving against total savings
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

The chart below presents the current carbon savings quantified at each delivery stage. The trend line, adapted from the PAS 2080 carbon reduction hierarchy figure emphasises that the greatest carbon savings are made during the early stages of a project.



Opportunities	Potential Saving (tCO_2e)
Design	0
Construction	0
Operation and Maintenance	0
Decommission	0
All stages	0

Carbon quantified opportunities

The details below have been automatically pulled through from the 'Opportunities' tab if an opportunity has been categorised as quantified. Additional opportunities should continue to be quantified as further data becomes available (e.g. construction activity data), and any additional measures that are identified should be quantified where possible too.

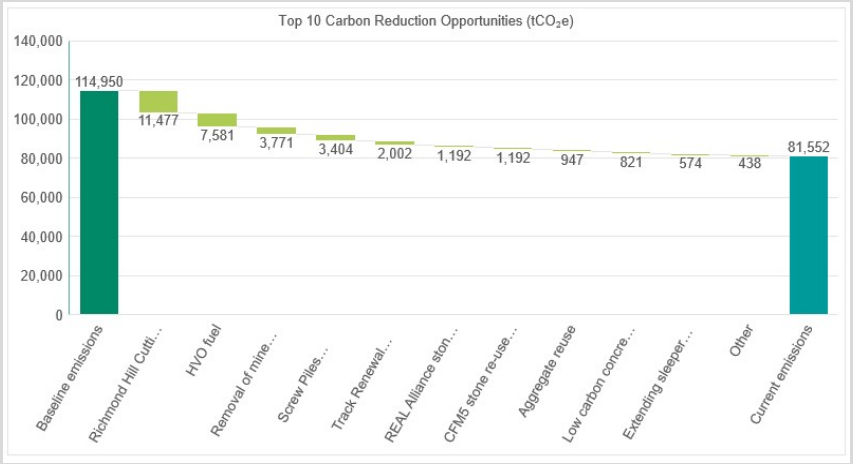
Opportunity	Name	Estimated carbon saving (tCO_2e)	Status	Delivery stage	%reduction vs baseline

Example Carbon Reduction Opportunities Savings

Due to data availability, it is currently not possible to quantify carbon savings from carbon reduction measures and opportunities.

However, this tab has been developed to enable quantification of carbon savings for opportunities and measures at future project stages, as the design progresses and more granular, accurate data becomes available.

To highlight how carbon savings data will be presented once quantified, an example waterfall graph presenting



Appendix D – Project Risk Register

Hereford Western Bypass

Herefordshire Council

ID	Type	Date logged	Risk Name	Description	Mitigation Measures	Owner
0.12	open	Jun-25	General & Staff Resources	Possible delay to works/ additional works due to delay in receipt of original design information for phase 1 along with missing information, including missing document issue register.	Missing native format drawings and models likely to increase time required to update recreate drawings and models where revisions are required	HC
0.13	open	Jun-25	General & Staff Resources	Change of Local Government threat to project, works on site to commence Dec 26. Scheme was cancelled previously due to change in local government.	Importance of keeping to programme and contract award enabling commencement of works on site Dec 26. Strategic risk - hence cost not assigned	HC
0.14	open	Jan-26	General & Staff Resources	Judicial review against a planning decision for the supplementary planning application within 6 weeks from the date of the decision (linked to 0.13)	Provide technical support and information to the Client. Site clearance during PCSA stage. AtkinsRealis to continue from Tender Stage work and keep design within constraints	HC
0.15	open	May-26	General & Staff Resources	Key Herefordshire staff leave organisation or are absent due to sickness causing delay to programme, missing key deadlines or project inefficiencies	Provide appropriate organisational resilience and succession planning.	HC
0.16	open	May-26	General & Staff Resources	Key Atkins/Grahams / AECOM staff leave organisation or are absent due to sickness causing delay to programme, missing key deadlines or project inefficiencies	Provide appropriate organisational resilience and succession planning.	Grahams/Atkins/ AECOM
1.1	Open	Jan-26	PM	The 2018 Bill of Quantity/Activity Schedule does not match the 2018 Scope and/or quantities calculated in PCSA stage and/or measured quantities differ from those developed in PCSA stage	Experienced team involved in the PCSA stage. Continuity of the team. Raise TQ's to resolve. Opportunity for optimisation of Earthworks Material Strategy to reduce imported fill.	HC
1.2	Open	Jan-26	PM	Pricing volatility occurs between tender submission and contract award	Make an allowance for escalation based on feedback from supply chain and review of performance of current indices	HC

ID	Type	Date logged	Risk Name	Description	Mitigation Measures	Owner
2.1	open	Mar-25	Highways	Potential that the WCHAR for Phase 1 will need to be updated	We have planning and WCHAR would simply create further pressure relating to foot / cycle access along proposed route. Initial discussions with National Highways point towards exemption. AECOM will provide report for HC to issue to National Highways.	HC
2.2	open	Mar-25	Highways	Potential for undertaking additional Topographical surveys	Topo survey exists. Some further site based topo survey will be required at the extent of the red line boundary, particularly immediately to the south of the railway bridge. Also some issues at extent of tie-ins with existing and also at balancing ponds.	HC
2.3	open	Mar-25	Highways	Potential for update of accommodation works (Bruton Knowles currently progressing). Potential to have to reproduce drawings if we can't get CAD versions.	Any accommodation works issues require resolving ASAP to prevent future programme delays.	HC
2.4	open	Mar-25	Highways	Potential for delays and design changes resulting from requirement to obtain National Highways Technical approval and legal agreement at tie-in with A49.	There are some departures from standard on the new leg of the A49 roundabout (entry deflection criteria and exit width). These should be able to be resolved with minimal effort. Note this is a pre-commencement condition for this section and discharge of planning condition is required before temporary accesses to site from A49 can be approved	HC
2.5	Open	Jun-25	Highways	Potential to encounter tar bound material and potential for innappropriate pavement design at tie-ins due to lack of pavement investigation and survey information with associated H&S and design life implications	Complete pavement investigations at tie-ins in advance of construction to verify significance of issue and inform design	HC
2.6	Open	Jun-25	Highways	Potential for the pavement foundation design suitability and design life to be affected by Geotechnical concerns.	Verify geotechnical properties to confirm pavement design. Assumed now covered in D&B contract - assumed AECOM's input limited to potential review	D&B
3.1	Open	Jun-25	Structures	Risk of incomplete checks as insufficient information has been provided to confirm that the culvert size of structure S01 is correct (the flood level is not shown).	Update in PCSA design review	D&B
3.2	Open	Jun-25	Structures	Delays in Network Rail approvals eg due to refusal to re-approve outdated AIP and D&C certificates. (S05)		HC
3.3	Open	Jun-25	Structures	Re-certification design costs and TAA costs for railway bridge) S05)		HC

ID	Type	Date logged	Risk Name	Description	Mitigation Measures	Owner
4.1	open	Jun-25	Drainage	Potential shallow groundwater in the vicinity of drainage attenuation ponds leading to the potential need for a liner incorporating uplift mitigation. This could require significant over excavation to provide the bulk fill overburden necessary for mitigation against uplift, or may require additional drainage measures to draw down groundwater levels. The earthworks and groundwater conditions for each pond will need to be reviewed and this could impact on the planning red line boundary	Consider completing additional testing to verify effectiveness of proposed balancing ponds. AECOM currently preparing proposal (Nov 25).	D&B/HC
4.2	open	Jun-25	Drainage	Hydrological risk arising due to the limited results from the soakaway testing will need to be reviewed	Consider completing soakaway tests to understand efficiency and scale of any soakaways required.	D&B
5.1	Open	Oct-25	Geotechnics	Phase 1: Due to geotechnical risks & opportunities identified potential for additonal GI and changes to GIR/GDR, earthworks and drainage design	Review design during PCSA stage and undertake additonal GI where required to inform any changes.	HC
5.2	open	Oct-25	Geotechnics	Phase 1: Infilled quarry and clay pits were recorded in the vicinty of the scheme in the GIR. There is a risk that they or other un-recorded areas contain unsuitable or contaminated material which will require assessment of contamination or settlement and the design of mitigation and treatment.	Potential to review any additional information availabe on these historic features and the potential for other contaminated or unsuitable material. Designer cost impact only, does not include construction cost impacts.	HC
5.3	Open	Jan-26	Geotechnics	The ground conditions provided within the tender documentation are underestimated (unforeseen) including hydrogeology	Timely communication with the Client Plan and agree additional GI scope early within PCSA stage to inform design freeze	D&B
5.4	Open	Jan-26	Geotechnics	Unforeseen ground conditions encountered during construction differ from those identified in the PCSA stage, including hydrogeology (links to ID 5.14)	Raise EWN and discuss with Client. Allowance for Designer's Site Rep (DSR) to raise any issues and feedback to designers. Additional pre-surveys done in front of the works. Implement design changes as necessary.	HC

ID	Type	Date logged	Risk Name	Description	Mitigation Measures	Owner
5.5	Open	Jan-26	Geotechnics	Project is impacted Weather > 1 in 10 years	Material specifications; Considering use of lime addition to RMF during placement, to achieve classification and provide wider ranges for moisture content. Confirm float within Tender Programme on earthworks items is adequate during PCSA stage. Sense check Tender Programme bulk earthworks seasonality of March to October seasons against final earthworks design.	HC
5.6	Open	Jan-26	Geotechnics	UXO may be discovered during intrusive ground activities e.g. excavation during the construction stage	UXO surveys to be undertaken in PCSA stage. UXO awareness and site procedures. Safe systems of work for intrusive ground activities. Agree emergency response arrangements.	D&B
6.1	open	Mar-25	Environmental	Potential that additional ecological surveys and assessments are required eg Habitats Regulations Assessment	Undertake PEA for supplementary planning applications as soon as possible	HC
6.2	open	Mar-25	Environmental	There is a risk that the Archaeological watching brief could identify further works to be required.	Undertake mitigation early in programme	HC
6.3	open	Mar-25	Environmental	Potential for fees payable to Natural England to obtain species licences for GCN and Dormouse along with additional mitigation measures with associated time constraints which could impact on construction programme.	Undertake mitigation early in programme	HC
6.4	open	Jun-25	Environmental	Potential for undertaking stand-alone invasive species surveys completed in isolation from other surveys. If invasive species left unidentified they could spread further. Additional costs of managing impact, potential programme delays. Some species are much easier to identify when plants are flowering.	Early surveys undertaken and on-going. Follow Environment Agency guidelines.	HC
6.5	open	Oct-25	Environmental	Delays to access for ecological survey works may result in missed survey windows and project delays.	Maintain regular updates with PM team and HC, and check ins with land agent to ensure that they are aware of survey window deadlines	HC
6.6	Open	Jan-26	Environmental	Archaeological finds are discovered on site (links to 6.5 and 6.16)	Watching Brief throughout construction. Targeted investigations in sensitive areas as part of the PCSA contract.	HC
6.7	Open	Jan-26	Environmental	Invasive non-native species (INNS) - Plants could be found on site e.g. Japanese knotweed (links to 6.17)	Undertake surveys (at the correct time of year). Timing of site clearance.	HC
6.8	Open	Jan-26	Environmental	The existing ancient/veteran tree at S04 causes construction issues	Surveys on tree roots to be undertaken in PCSA stage.	D&B

ID	Type	Date logged	Risk Name	Description	Mitigation Measures	Owner
8						
8.1	open	Jun-25	Statutory Undertakers	Excessive Statutory Utilities diversion lead in/delivery times on SLR	Once appointed Contractor to engage early on with Utility Companies regarding making arrangements for diversions (for the SLR scheme).	HC
8.2	Open	Jan-26	Statutory Undertakers	Uncharted services are discovered on site	Undertake GPR Survey. Permit to Dig.	D&B
9.1	open	Mar-25	Planning	Potential that a S73 application will be required	Discuss any proposed changes with HC planning. We note that the structures drawings submitted at planning contained a high level of detail. The detail differed to that provided at detailed design.	HC
9.2	open	Jun-25	Planning	Secure consent trafficking of partially constructed railway bridge for earthworks haulage.	Opportunity as haul route already priced for. Supplementary planning application being submitted for haul route	D&B
9.3	open	Nov-25	Planning	Potential for Supplementary Planning application to require an environmental impact assessment - resulting in additional cost/ delay to planning approvals and construction as well as additional enivoronmental surveys	Submit planning pre-app followed by EIA scoping request	HC
9.4	Open	Jan-26	Planning	Deviations from planned possessions (shortened and/or cancelled possessions) affects works e.g. beam lift	Contingency in the programme. Good planning and early engagement.	D&B
9.5	Open	Jan-26	Planning	There is a risk that there will be a significant lead-in to getting approval of Traffic Management on the National Highways network (A49), and the Traffic Management required could be more onerous than anticipated	Early Engagement with National Highways. Traffic Management Working Groups with key stakeholders. Use internal experience from recent National Highways project deliveries.	D&B
10.1	open	Mar-25	Accommodation Works	Potential for issues relating to severance of land / PROW / water supplies. Delays in confirming how to proceed can cause programming issues once on site.	Bruton Knowles to provide details of agreements asap.	HC/BK
10.2	open	Mar-25	Accommodation Works	Additional design work required to provide access to land parcels severed by the works - potential for land ownership to have changed and different access requirements now required to previous or accommodation works scope changes due to land owner negotiations	Bruton Knowles to identify any such situations asap.	HC

ID	Type	Date logged	Risk Name	Description	Mitigation Measures	Owner
11.1	open	Mar-25	Stakeholders	Potential for additional TROs /SROs above those already identified / obtained.	Need for additional TROs /SROs or TTROs particularly around Haywood lane curently being reviewed by Sharpe Pritchard	HC
11.2	open	Mar-25	General & Staff Resources	Potential that the statutory orders will need to be amended or updated, resulting in delays to CPO	Some amendments required to orders, currently being revised. May require further cabinet approvals. Sharpe Pritichard progressing revised orders.	HC
11.3	open	Nov-25	Stakeholders	Potential for CPO to be required for land acquisition resulting in design change, delays to construction and possible public enquiry following	Bruton Knowles currently completing negotiations with land owners.	HC

Appendix E – Equality Impact Assessment

Hereford Western Bypass

Equality Impact Assessment

June 2026

Delivering a better world

Quality information

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1. Introduction

AECOM has been commissioned by Herefordshire Council to produce an Equality Impact Assessment (EqIA) for Phase One of the Hereford Western Bypass Scheme. This EqIA will support Herefordshire Council in demonstrating due regard has been paid to the Equality Act 2010, in particular Section 149 of the Public Sector Equality Duty (PSED).

An EqIA is a systematic assessment of the effects of the plans or policies on groups with protected characteristics as defined by the Equality Act 2010. As a public body, Herefordshire Council has a legal duty to pay due regard to the PSED which aims to eliminate unlawful discrimination, promote equality and cohesion between different groups and advance equality of opportunity.

This EqIA considers the potential equality impacts of Phase One of the Hereford Western Bypass scheme, as part of the Full Business Case (FBC) being prepared for the scheme. This report will be updated to consider the potential impacts of Phase Two of the scheme once it has been developed further.

1.1 Methodology and approach

To assess the potential equality impacts associated with the scheme, this EqIA reviews relevant legislation and policy, local demographic and socio-economic data and previous consultation undertaken. It also includes a review of the Statement of Reasons and Order Plan for the land subject to compulsory purchase order (CPO). The assessment is informed by the 2010 Equality Act, particularly the PSED and AECOM's in-house approach to conducting EqIAs.

1.2 Report structure

Following on from this introduction section, the remainder of this report is structured as follows:

- **Chapter 2 – Scheme overview:** provides an overview of the proposed scheme and the associated compulsory purchase orders.
- **Chapter 3 – Legislation and policy review:** provides context through review of relevant national, regional and local policy associated with equalities;
- **Chapter 4 – Evidence review:** a review of population data and the key issues and evidence relevant for protected characteristic groups and a review of the consultation undertaken to date and any key equality impacts identified;
- **Chapter 5 – Consultation and engagement:** summarises the contributions made as part of the South Wye Transport Package consultation;
- **Chapter 6 – Assessment of impacts:** an assessment of the expected equality impacts associated with the Proposed Development on those with protected characteristics and experiencing socio-economic disadvantage; and
- **Chapter 7 – Conclusions and recommendations:** provides a summary of the key findings and recommendations.

2. Scheme overview

The Hereford Western Bypass scheme aims to address several challenges across the county, including a lack of crossings over the River Wye, traffic congestion in the city centre, environmental challenges such as the need to improve air quality and a range of socio-economic issues. The scheme is made up of two phases:

- **Phase One:** will provide a new link road between the A465 and the A49 to the south-west of Hereford city centre. It is a 3.6km long section of rural all-purpose single carriageway with a designed speed of 60mph. Phase One has full planning permission in place and Herefordshire Council have procured a Design and Build contractor to deliver this phase of work. (This section of the scheme was previously referred to as the 'Southern Link Road (SLR)'.
- **Phase Two:** will connect the Phase One scheme at the A465 junction and route to the west of the city centre, crossing the River Wye on a viaduct structure before connecting with the A49 to the north of the city. Phase 2 of the by-pass is at a less-advanced stage and is likely to evolve further as the scheme is developed.

Phases One and Two of the bypass scheme are depicted in Figure 2-1 below.

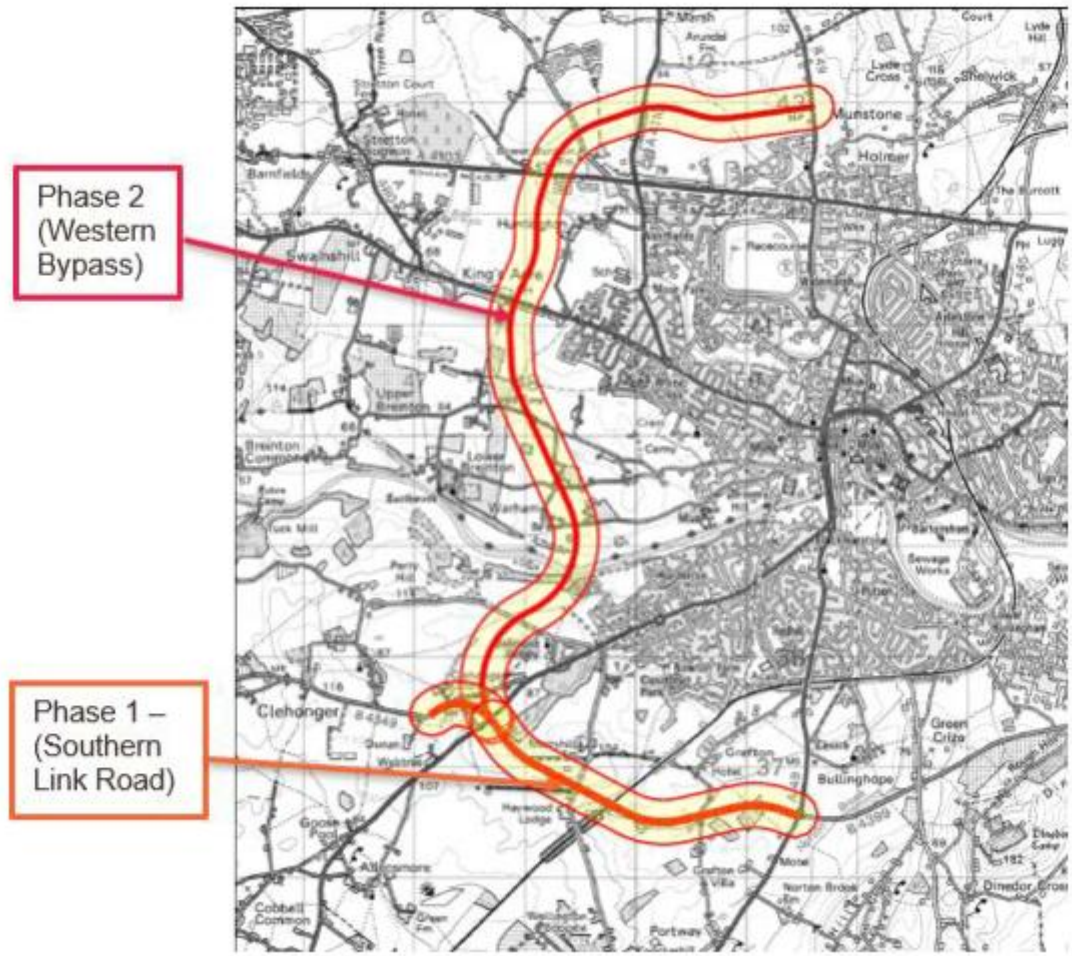


Figure 2-1 Hereford Western Bypass Scheme

2.1 Compulsory Purchase Orders

The Phase One scheme requires the acquisition of much of the land along its route, with only one parcel of land currently within the council's ownership (approximately 10-15% of the total land required). The land purchase is processing through negotiation with a fall-back position of compulsory acquisition. A Compulsory Purchase Order (CPO) overview plan identifying and updating land boundaries in relation to the scheme has been developed.

The land required for the construction of the scheme is largely agricultural land. The Order Land, which is in a variety of ownerships, is rural and largely comprises arable fields, small woodlands and coppices, small settlements, and farmland. Agreements are required with seven landowners across the scheme extent.

The council's position is that it is aiming to secure all of the necessary rights and land ownership through negotiation. It is running the CPO process in parallel as a fallback position in case a negotiated agreement cannot be reached in all cases.

Relevant land negotiations and CPOs will need to be finalised before construction can commence on each parcel of land, and therefore this is a key dependency. As of late May 2026, out of the seven affected landowners, Herefordshire Council have Heads of Terms out with two landowners.

Further detail on the land acquisition and CPO process being followed is set out in the Management Dimension.

3. Legislation and policy review

3.1 National level

3.1.1 Equality Act 2010 and the Public Sector Equality Duty (PSED)[1]

The Equality Act 2010 is a major piece of UK legislation which provides the framework to protect the rights of individuals against unlawful discrimination and to advance equal opportunities for all. Section 149 of the Equality Act sets out the PSED to which Herefordshire Council, as a public body, is subject to in carrying out all its functions.

Those subject to the PSED must, in the exercise of their functions, have due regard to the need to:

- Eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Act;
- Advance equality of opportunity between people who share a protected characteristic and those who do not; and
- Foster good relations between people who share a protected characteristic and those who do not.

These are sometimes referred to as the three aims or arms of the PSED. The Act explains that having due regard for advancing equality involves:

- Removing or minimising disadvantages suffered by people due to their protected characteristics;
- Taking steps to meet the needs of people from protected groups where these are different from the needs of other people; and
- Encouraging people from protected characteristics groups to participate in public life or in other activities where their participation is disproportionately low.

The Act states that meeting different needs involves taking steps to take account of disabled people's disabilities. It describes fostering good relations as tackling prejudice and promoting understanding between people from different groups. It states that compliance with the duty may involve treating some people more favourably than others.

The duty covers the following eight protected characteristics: age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex and sexual orientation. Public authorities also need to have due regard to the need to eliminate unlawful discrimination against someone because of their marriage or civil partnership status. This means that the first arm of the duty applies to this characteristic, but that the other arms (advancing equality and fostering good relations) do not apply.

3.1.2 Integrated National Transport Strategy for England 2026

In April 2026, the DfT published Strategy for Integrated Transport[2] which sets out a national vision for a transport system that is safe, reliable, affordable and accessible for all. The underlying principles focus on using transport to create better connected places, putting people at the heart of transport and working in partnership with local leaders and experts.

[1] UK Government (2010). Equality Act 2010. Available at: Equality Act 2010
[2] Department for Transport (2026) Better Connected: A Strategy for Integrated Transport. Available at: Better Connected: A Strategy for Integrated Transport

The strategy sets out 8 key priorities:

- Simplify payments and information
- Provide safe and dependable journeys
- Make travel accessible and affordable
- Create healthier communities
- Align transport and development
- Champion data and technology
- Empower local leaders
- Optimise decision-making and appraisal

The emphasis on empowering local leaders to deliver integrated, multimodal transport networks for local needs is of relevance for the development of the Proposed Scheme. The strategy also mandates a shift away from isolated modal planning in favour of integrated connections between different modes of travel, supported by integrated ticketing and real-time information. The strategy has a strong focus on active travel and the need to prioritise infrastructure for walking, wheeling and cycling and a commitment to reduce inequalities. The strategy also states that Local Authorities should engage directly with disabled people and other underrepresented groups to develop solutions that remove barriers to travel and improve personal security.

3.1.3 Road Investment Strategy 3 (RIS3) 2026-2031

The Road Investment Strategy 3 (RIS3)[3], published by the Department for Transport in 2026, sets out the government's priorities for the strategic road network in England for the period 2026–2032. It focuses on delivering a network that supports economic growth while improving safety, reliability, environmental outcomes and accessibility.

RIS3 emphasises the importance of a safe and inclusive road network that meets the needs of all users. Key objectives include improving safety, enhancing connectivity, and ensuring the network is accessible to a diverse range of users, including disabled people and those in underserved communities. The strategy also highlights the need to better integrate the strategic road network with public transport and active travel to support more inclusive journeys.

The strategy promotes inclusive design and the removal of barriers to travel, encouraging features such as safe crossings, clear information and provision for walking, wheeling and cycling. It also reinforces the requirement for National Highways to consider equality in decision-making and to engage with communities to understand user needs.

RIS3 is relevant to the Proposed Scheme through its focus on safety, accessibility and inclusive design, supporting the delivery of infrastructure that reduces barriers to travel and improves outcomes for all users.

3.1.4 National Planning Policy Framework 2024

The National Planning Policy Framework[4] sets out national policy for planning in England, including transport, sustainability and environmental integration. The framework places a strong emphasis on the need to reduce travel, promote sustainable transport, integrate transport and land use planning and protect natural assets.

The framework highlights that Local Transport Strategies should minimise car dependence by supporting high quality active travel networks and strong public transport connectivity into spatial planning. There is also an emphasis on aligning green infrastructure with transport

[3] Department for Transport (2026) Draft Road Investment Strategy 3 (RIS3) 2026–2032. Available at: https://assets.publishing.service.gov.uk/media/69c4265e471d520038d0f64a/ris3.pdfhere
[4] Ministry of Housing, Communities & Local Government (2024) National Planning Policy Framework. Available at: National Planning Policy Framework

corridors which is of particular relevance given Herefordshire's rural landscape. The framework also requires the consideration of environmental sensitivity in route planning and scheme design.

3.2 Local level

3.2.1 Herefordshire Local Plan Core Strategy 2011-2031

The Herefordshire Local Plan Core Strategy[5] sets out the long-term vision for sustainable development across the county, including policies on housing, transport, environment and community wellbeing. It aims to support economic growth while protecting the natural environment and promoting inclusive, sustainable communities.

The Core Strategy emphasises the importance of accessible transport in supporting social inclusion and economic participation. It promotes improved connectivity between rural and urban areas, sustainable travel modes, and the reduction of reliance on private cars. Policies encourage the development of infrastructure that supports walking, cycling and public transport, alongside safe and efficient road networks.

3.2.2 Herefordshire Infrastructure Delivery Plan 2014

The Herefordshire Infrastructure Delivery Plan (IDP)[6] identifies the infrastructure required to support planned growth within the county, including transport, utilities, education and health facilities. It provides a framework for coordinating infrastructure investment to ensure development is supported by appropriate services and facilities.

The IDP highlights the importance of transport infrastructure in enabling access to key services, employment and education. It identifies capacity improvements, safety enhancements and connectivity as key priorities, particularly in areas experiencing growth or existing infrastructure constraints.

3.2.3 Herefordshire Council Plan 2024-2028

The Herefordshire Council Plan[7] sets out the council's strategic priorities and commitments, focusing on improving residents' quality of life, supporting economic growth and protecting the environment.

A key theme of the plan is creating stronger, more connected communities, with an emphasis on improving transport accessibility and connectivity. The plan highlights the importance of enabling people to access services, employment and social opportunities, particularly in rural areas. It also promotes sustainable and active travel, alongside measures to improve road safety.

3.2.4 Herefordshire Local Transport Plan 2025-2041

The Herefordshire Local Transport Plan (LTP5)[8] sets out the long-term strategy for transport across the county. It aims to create a transport system that is safe, sustainable, accessible and supports economic development while reducing environmental impacts.

LTP5 places strong emphasis on reducing transport inequalities and improving accessibility for all users, including those with protected characteristics and those without access to private vehicles. It promotes integrated transport solutions, with a focus on active travel, public transport improvements and better connectivity across rural areas. The plan also

[5] Herefordshire Council (2015) Herefordshire Local Plan Core Strategy 2011–2031. Available at: http://www.colwallneighbourhoodplan.org.uk/Documents/Adopted%20Core%20Strategy.pdf
[6] Herefordshire Council (2014) Herefordshire Infrastructure Delivery Plan. Available at: https://www.herefordshire.gov.uk/media/nixca31s/infrastructure_delivery_plan_2014.pdf
[7] Herefordshire Council (2024) Herefordshire Council Plan 2024–2028. Available at: https://www.herefordshire.gov.uk/media/v5wnuagl/herefordshire_council_plan_2024-28.pdf
[8] Herefordshire Council (2025) Herefordshire Local Transport Plan (LTP5) 2025–2041. Available at: https://www.herefordshire.gov.uk/media/alxnj2fo/local-transport-plan-5-ltp5-2025-2041.pdf

prioritises safety, decarbonisation and inclusive design, encouraging the removal of barriers to travel and improved user experience across all modes.

3.2.5 Herefordshire Joint Local Health and Wellbeing Strategy 2023-2033

The Health and Wellbeing Strategy[9] sets out the approach for the Council and local partners to address the population's health and wellbeing needs. The strategy identifies that over half of Herefordshire's population live in rural areas which presents geographical barriers to services, education and employment and that those without access to private cars can risk social isolation. The strategy sets out four key ambitions.

- **Thriving communities:** communities will foster wellbeing and resilience, where children and young people feel safe and develop the confidence and skills to be the best that they can be. There will be a sense of belonging with everyone feeling empowered to shape their local communities.
- **Healthy and sustainable places:** residents will live and work in environments that prioritise health and wellbeing, with neighbourhoods designed to create healthier and safer environments.
- **Opportunity for all:** there will be improved access to quality education and employment opportunities. A progressive and inclusive local economy will create the right jobs, supporting social mobility and closing the inequalities gap.
- **Healthy people:** people will be empowered to take control of their health and lead healthy lives. Everyone will have equitable access to information, services and preventative support they need.

3.2.6 Herefordshire Equality Policy 2024-2027

The Equality Policy[10] sets out Herefordshire Council's commitment to promoting equality, diversity and inclusion across all its functions. It outlines the responsibility to eliminate discrimination, advance equality of opportunity and foster good relations across all nine protected characteristics. It highlights the need for the integration of equality considerations into service planning and decision making. The Council also pledges to address social issues impacting equality and to strive for accessible services and environments.

[9] Herefordshire Council (2023) Herefordshire Joint Local Health and Wellbeing Strategy 2023-2033. Available at: Herefordshire Joint Local Health and Wellbeing Strategy 2023 - 2033
[10] Herefordshire Council (2024) Equality Policy 2024-2027. Available at: Equality policy 2024-27

4. Baseline evidence review

4.1 Introduction

This section provides a baseline of the local population and a review of key evidence related to protected characteristic groups. The baseline draws on analysis of Census 2021 data, alongside other datasets available at the Local Authority and national scales. Socio-economic conditions have been examined using the Indices of Deprivation (IoD) 2025, which are published at LSOA level.

The population and protected characteristics baseline analyses data at three geographical levels:

- Local Study Area (for Phase One) – comprised of Lower Super Output Areas 016D and 21A Herefordshire to capture the population in close proximity to Phase One of the Scheme;
- Herefordshire Local Authority – to capture the wider local population;
- England – to allow for national comparison.

4.2 Population baseline

4.2.1 Population

Table 4-1 Population count and changeoutlines the population count across the Study Area, Herefordshire and England, and compares it against the % change between the 2011 and 2021 census. The data shows that the Study Area experienced significant population growth, increasing by 104%. In contrast, population growth in Herefordshire was considerably lower at 1.9%, while England recorded a larger increase than the county, at 6.6%, but still substantially below the level observed in the Study Area.

Table 4-1 Population count and change

Year	Study Area (%)	Herefordshire (%)	England (%)
2011	1749	183,477	53,012,456
2021	3567	187,034	56,490,048
% Change	+104	+1.9	+6.6

Source: Census 2011[11]*, Census 2021*[12]

4.3 Protected Characteristic Groups

4.3.1 Age

Table 4-2 Age breakdown by geographical areaoutlines the age breakdown across the three geographies. The table shows the Study Area has a generally older age profile than both Herefordshire and England with a higher proportion of residents being aged 65 and over (28.8%), compared with 25.9% in Herefordshire and 18.3% in England. However, the working-age population (16-64) is smaller in the Study Area at 55.9%, below the Local Authority and national levels. The Study Area has a smaller proportion of children aged 0-15 (15.3%) compared to the rest of Herefordshire (16%) and the national figure (18.5%).

[11] ONS (2011) 2011 Census Available at: 2011 Census Report for areas in England and Wales - Nomis
[12] ONS (2021) 2021 Census Available at: 2021 Census Profile for areas in England and Wales - Nomis

Table 4-2 Age breakdown by geographical area

Age (years)	Study Area (%)	Herefordshire (%)	England (%)
0-15	15.3	16.0	18.5
16-64	55.9	58.1	63.0
65 and over	28.8	25.9	18.3

Source: Census 2021[12]

4.3.2 Sex

Table 4-3 Sex breakdown by geographical areahighlights that the Study Area, Herefordshire, and England all exhibit a broadly even split between males and females. The Study Area has a slight male majority, with 50.2% of residents identifying as male, differing from both Herefordshire and England where females slightly outnumber males.

Table 4-3 Sex breakdown by geographical area

Sex	Study Area (%)	Herefordshire (%)	England (%)
Female	49.8	50.9	51.0
Male	50.2	49.1	49.0

Source: Census 2021[12]

4.3.3 Disability

Table 4-4 outlines levels of disability across the Study Area, Herefordshire and England. The Study Area has a similar percentage of residents whose day-to-day activities are limited a lot (7.7%) compared with Herefordshire (7.5%) and England (7.3%). A comparable pattern is seen among those whose activities are limited a little, with the Study Area at 11.2%, closely aligning with Herefordshire (11.1%) and slightly exceeding England (10.0%). Similarly, the proportion of residents reporting a long-term physical or mental health condition that does not limit daily activities is slightly higher in the Study Area (7.8%) than in Herefordshire (7.6%) and England (6.8%).

Table 4-4 Disability breakdown by geographical area

Level of disability	Study Area (%)	Herefordshire (%)	England (%)
Day-to-day activities limited a lot	7.7	7.5	7.3
Day-to-day activities limited a little	11.2	11.1	10
Has long term physical or mental health condition but day-to-day activities are not limited	7.8	7.6	6.8
No long term physical or mental health condition	73.3	73.8	75.9

Source: Census 2021[12]

4.3.4 Ethnic Group

Table 4-5 summarises the ethnic composition of the Study Area compared with Herefordshire and England. The Study Area is notably less ethnically diverse, with 94.6% of residents identifying as White English, Welsh, Scottish, Northern Irish or British, compared to around 72–74% at the Local Authority and national level. Smaller White ethnic groups are present at low but comparable levels, while Roma representation is absent. All other ethnic groups are significantly underrepresented in the Study Area, with particularly low proportions of Asian and Black residents. Notable ethnic groups in the Study Area, compared to national levels, include Other White at 3.9%.

Table 4-5 Ethnic group breakdown by geographical area

Ethnic group		Study Area (%)	Herefordshire (%)	England (%)
White	English, Welsh, Scottish, Northern Irish or British	94.6	71.8	73.5
	Irish	0.6	1.6	0.9
	Gypsy or Traveller	0.4	0.1	0.1
	Roma	0.0	0.2	0.2
	Other	2.9	8.1	6.3
Mixed/ Multiple Ethnic Groups	White and Black Caribbean	0.2	1.1	0.9
	White and Black African	0.2	0.5	0.4
	White and Asian	0.1	1.2	0.8
	Other	0.3	1.1	0.8
Asian/ Asian British	Indian	0.1	4.0	3.3
	Pakistani	0.0	1.5	2.8
	Bangladeshi	0.0	0.6	1.1
	Chinese	0.1	0.7	0.8
	Other	0.2	1.8	1.7
Black/ African/ Caribbean/ Black British	African	0.0	2.4	2.6
	Caribbean	0.1	0.9	1.1
	Other Black	0.0	0.4	0.5
Other Ethnic Group	Arab	0.0	0.4	0.6
	Other	0.1	1.7	1.6

Source: Census 2021[12]

4.3.5 Religion

Table 4-6 summarises the religious profile of the Study Area compared with Herefordshire and England. The Study Area has a higher proportion of Christian residents (59.3%) than both Herefordshire (54.9%) and England (46.3%), alongside a lower share reporting no religion (33.5% compared to around 36–37% elsewhere). Other religious groups are very limited in the Study Area, with notably lower proportions of Hindu, Muslim, and Sikh residents than nationally.

Table 4-6 Religion breakdown by geographical area

Religion	Study Area (%)	Herefordshire (%)	England (%)
Christian	59.3	54.9	46.3
Buddhist	0.2	0.3	0.5
Hindu	0.1	0.2	1.8
Jewish	0.0	0.1	0.5
Muslim	0.1	0.4	6.7
Sikh	0.0	0.1	0.9
Other religion	0.3	0.5	0.6
No religion	33.5	36.6	36.7
Religion not stated	6.5	6.9	6.0

Source: Census 2021[12]

4.3.6 Legal partnership

Table 4-7 summarises the legal partnership status of residents in the Study Area, Herefordshire, and England. The Study Area has a higher proportion of married residents (54.7%) than both Herefordshire (49.7%) and England (44.5%), and a lower proportion of those who have never married (27.6% compared to 30.4% and 37.9% respectively). Levels of divorce are slightly lower in the Study Area (8.8%) than regionally and nationally, while the proportion of widowed residents (6.8%) is broadly in line with England (6.1%).

Table 4-7 Legal partnership breakdown by geographical area

Legal partnership status	Study Area (%)	Herefordshire (%)	England (%)
Never married	27.6	30.4	37.9
Married	54.7	49.7	44.5
Registered civil partnership	0.5	0.3	0.2
Separated, but still legally married or still legally in a civil partnership	1.7	2.1	2.2
Divorced or civil partnership dissolved	8.8	10.2	9.1
Widowed or surviving civil partnership partner	6.8	7.4	6.1

Source: Census 2021[12]

4.3.7 Sexual orientation

Table 4-8 summarises sexual orientation data for Herefordshire and England from the 2021 Census. Specific data for the Study Area is not available. The proportion of the populations identifying as gay or lesbian and as bisexual are lower in Herefordshire, at 1.0% and 0.9% respectively, compared with 1.5% and 1.3% across England. Other minority sexual orientation categories account for very small shares of the population in both areas and are broadly similar.

Table 4-8 Sexual orientation breakdown by geographical area

Sexual orientation	Study Area (%)	Herefordshire (%)	England (%)
Straight or Heterosexual	N/A	89.7	89.4

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Sexual orientation	Study Area (%)	Herefordshire (%)	England (%)
Gay or Lesbian	N/A	1.0	1.5
Bisexual	N/A	0.9	1.3
Pansexual	N/A	0.1	0.1
Asexual	N/A	0.0	0.1
Queer	N/A	0.0	0.0
All other sexual orientations	N/A	0.1	0.2
Not answered	N/A	8.1	7.5

Source: Census 2021[12]

4.3.8 Gender identity

Table 4-9 highlights gender identity figures across the different geographies. This data was unavailable for the Study Area. In both Herefordshire and England, small proportions identified as trans women or trans men (both 0.1%), while identification as non-binary and other gender identities accounted for negligible shares of the population. The proportion of residents reporting a gender identity different from their sex registered at birth but without specifying an identity was slightly lower in Herefordshire (0.1%) than in England (0.2%).

Table 4-9 Gender identity by geographical area

Gender identity	Study Area (%)	Herefordshire (%)	England (%)
Gender identity the same as sex registered at birth	N/A	93.2	93.5
Gender identity different from sex registered at birth but no specific identity given	N/A	0.1	0.2
Trans woman	N/A	0.1	0.1
Trans man	N/A	0.1	0.1
Non-binary	N/A	0.0	0.1
All other gender identities	N/A	0.0	0.0
Not answered	N/A	6.4	6.0

Source: Census 2021[12]

4.4 Socio-economic disadvantage

The Indices of Multiple Deprivation (IMD) is used to assess and rank the relative deprivation of areas within England. The country is divided into almost 34,000 LSOAs. This is calculated by using seven domains of deprivation: income, employment, education, health, housing, crime and living environment.

The IMD ranks LSOAs from decile 1 (the 10% most deprived LSOAs) to 10 (the 10% least deprived). Overall, the 2025 IMD ranked Herefordshire more deprived than 54% of local authority districts in England. Similarly, the Study Area is 55% more deprived than neighbourhoods in England.

Table 4-10 provides a breakdown of the proportion of LSOAs that comprise Herefordshire that fall into each deprivation decile. As shown, 12.8% of LSOAs fall into deciles 1-3 (most deprived nationally), whilst 17.3% fall into deciles 8-10 (least deprived). 70% of the LSOAs in Herefordshire fall into the middle deprivation deciles (4-7). Although a relatively smaller

proportion of LSOAs fall into deciles 1-3 compared to England as a whole, there can be pockets of deprivation within areas that are less deprived.

Table 4-10 English Index of Multiple Deprivation (IMD) deciles for England and Herefordshire (2025)

English Index of Multiple Deprivation 2025 All Deciles										
Deciles	1	2	3	4	5	6	7	8	9	10
England	10	10	10	10	10	10	10	10	10	10
Herefordshire	0.9	6.4	5.5	17.3	24.5	15.5	12.7	8.2	7.3	1.8

Source: English Indices of Deprivation 2025[13]

Both LSOAs that comprise the Phase One Study Area (Herefordshire 016D and 021A) fall within the fifth deprivation decile. However, they face relatively high levels of deprivation regarding the 'barriers to housing and services' domain (with 021A in the 10% most deprived and 016D in the 20% most deprived). The 021A LSOA also falls into the 10% most deprived decile with regards to the 'living environment' domain[14].

4.5 Key issues and Evidence

The information below highlights some of the key issues and evidence for protected characteristic groups relevant for this Scheme. The evidence will be used to support the assessment of impacts.

4.5.1 Children and Young People

- In 2021, the Study Area had a smaller proportion of children aged 0-15 (15.3%) compared to Herefordshire (16%) and compared to the national figure (18.3%). Children and young people are particularly sensitive to transport-related impacts including exposure to traffic related noise and air pollution, and road safety risks especially where construction activities, traffic diversions or increased traffic speeds occur[15].

- During construction, children can experience a range of temporary but potentially significant effects, particularly in areas close to the Proposed Scheme. For example, increased construction traffic and route disruption can impact the perceived and actual safety for children. This may also result in a temporary loss or restriction of access to play spaces and community facilities, which can adversely affect children's wellbeing and opportunities for physical activity and social interaction.

- Children are affected by transport issues in distinct ways because they are more physically vulnerable, less independent, and rely heavily on others and the transport system to access essential services such as education, healthcare and play. In 2024, the National Travel Survey (NTS) found that for 11–16-year-olds, 18% of trips to and from school are by local bus[16] (with bus use rising sharply for longer journeys, reaching 58% for trips 5 miles and over). Younger children rely more on walking and car travel.

[13] Ministry of Housing, Communities and Local Government (MHCLG). *English Indices of Deprivation 2025 – Local Deprivation Explorer (Index of Multiple Deprivation)*. Available at: Overall (IMD) | Local Deprivation Explorer
[14] Ministry of Housing, Communities and Local Government (MHCLG). *English Indices of Deprivation 2025 – Local Deprivation Explorer (Index of Multiple Deprivation)*. Overall (IMD) | Local Deprivation Explorer
[15] UK Health Security Agency (2025) Transport interventions at schools: health impacts and benefits. Available at: https://www.gov.uk/government/publications/transport-interventions-at-schools-health-impacts-and-benefits
[16] Department for Transport (2025) National Travel Survey 2024: Travel to and from School. Available at: https://www.gov.uk/government/statistics/national-travel-survey-2024/nts-2024-travel-to-and-from-school

- In England, walking is still the most common way children get to school, with 51% of trips for ages 5-10 and 37% for ages 11-16 made by walking in 2024. Cycling remains very low (around 2% for both age groups)[16]. Parents' responses in the NTS highlight that road danger is a key barrier: among those whose children do not currently walk more, "safer roads" (slower speeds/less traffic/better driver behaviour) is one of the most-cited factors that would encourage more walking. Traffic disruptions and diversions may affect the safety of children.
- Children can benefit from safe active travel because it directly supports healthy development, independence, and daily physical activity. However, they are also more constrained by real and perceived danger.
- Children are disproportionately impacted by road danger because they are more physically vulnerable and because risk affects their freedom to travel independently (often leading to parental escorting and more car trips). Nationally, DfT's official road casualty statistics show that in 2024, '16-and-under' accounted for 11% of all casualties and 4% of fatalities in Great Britain, underlining the continued scale of child exposure to road injury risk[17].
- Reports into the effects of road traffic noise and behavioural problems in children[18] state that traffic-related noise is correlated more broadly with lower health-related quality of life in children and they are more vulnerable to the effects of poor air quality compared to the overall population.
- The Phase One scheme may reduce congestion which may improve air quality and road safety in areas where children live, attend school and access services. Additionally, it may improve journey times and network reliability, supporting better access to schools and youth services.

4.6 Protected Characteristic Groups

4.6.1 Age: Older people

- The Study Area has a higher proportion of residents aged 65+ (28.8%) compared to both Herefordshire (25.9%) and England (18.3%). Older people are more likely to have reduced mobility and increased reliance on accessible transport options, and be more vulnerable to social isolation, particularly in rural areas with limited transport options.
- The rural nature of Herefordshire presents geographical barriers to services, particularly for those without access to a private car. Older people are more likely to rely on public transport to access services such as shops, post offices and healthcare centres. Whilst the Proposed Scheme may make transport access more difficult during construction, it is expected to improve traffic flow, improve public transport connectivity and reduce congestion, increasing accessibility in the long term.

4.6.2 Sex

- The Study Area shows a balanced gender split, consistent with county and national trends. However, evidence shows that women are more likely to use public transport and multi-stop and multi-purpose trips, combing travel to work with trips for other purposes such as taking children to school, looking after family members or shopping[19].

[17]Department for Transport (2025) Reported Road Casualties Great Britain: Annual Report 2024. Available at: https://www.gov.uk/government/statistics/reported-road-casualties-great-britain-annual-report-2024/reported-road-casualties-great-britain-annual-report-2024

[18] World Health Organization (2016) Transport and Health: Effects of Transport on Health (Systematic Review). Available at: https://pmc.ncbi.nlm.nih.gov/articles/PMC4749080/

[19] Walk Wheel Cycle Trust (2023) Exploring Gender and Active Travel. Available at: https://www.walkwheelcycletrust.org.uk/our-blog/research/exploring-gender-and-active-travel/

- As women are more likely to make multi-modal journeys, diversions during construction can disproportionately impact women travelling in this way. Conversely, if journey times reduce and connectivity is increased, multi-stop and multi-purpose trips can become more convenient and accessible.
- Personal safety concerns, particularly when using active travel routes or public transport, may be impacted during construction due to changes to route and potentially reduced lighting, particularly for women.

4.6.3 Sexual Orientation and Gender Reassignment

- There is no specific data available for sexual orientation and gender identity at the Study Area. In Herefordshire, approximately 2.1% of the population identity as LGBTQIA+ and 0.3% of the population identify as a gender minority, including individuals who are trans or identify differently from their sex registered at birth. This is slightly lower compared to national figures.
- LGBTQIA+ and trans people may experience heightened concerns around personal safety when travelling, particularly in public or unfamiliar environments. In 2024/25 there was 18,702 reported offences relating to sexual orientation and 3,809 related to transgender hate crimes[20]. The fear of harassment or hate crime may influence how, when and whether individual travel, including avoiding certain routes, travelling at specific times or relying on more expensive transport options such as taxis.
- The LGBTQIA+ community may have safety concerns during temporary changes to routes, including diversions onto less well-lit or less populated roads or disruption to familiar travel patterns, requiring the use of unfamiliar or perceived unsafe environments. These factors may result in behavioural changes, including reduced travel, avoidance of certain routes or times, or increased reliance on private or supported transport. This reflects a form of “hidden barrier” to mobility, where travel is technically possible but practically constrained by perceived risk.
- LGBTQIA+ may need to travel longer distances to access inclusive services, social networks or gender-affirming healthcare, often located in larger urban centres. Limited public transport options mean individuals may have fewer safe and accessible alternatives if routes are disrupted. Additionally, any increased in journey times or complexity during construction may therefore reduce access to these essential or supportive spaces.
- Improved connectivity can support access to services, employment and social opportunities, as well as reduce congestion and travel times, which may improve the overall travel experience.

4.6.4 Pregnancy and maternity

- Pregnant women are mobility restricted, particularly at later stages of pregnancy and may have concerns or issues with regards to accessibility and safety as well as needing to access facilities whilst feeling nauseous or ill whilst travelling.
- Research into acute effects of air pollutants on spontaneous pregnancy loss[21] found pregnant women are also more vulnerable to poor air quality, which increases the risk of miscarriage, premature births, and low birth rates.
- Hereford continues to enjoy good air quality with no exceedances of the annual mean NO_2 objective. Herefordshire Council are in the process of revoking the Hereford

[20] Home Office (2025) Hate Crime, England and Wales: Year Ending March 2025. Available at: https://www.gov.uk/government/statistics/hate-crime-england-and-wales-year-ending-march-2025/hate-crime-england-and-wales-year-ending-march-2025
[21] National Library of Medicine (2018) Health Impacts of Environmental Exposure (Study). Available at: https://pubmed.ncbi.nlm.nih.gov/30528056/

AQMA as it has been compliant for over five years. The opening of Phase One is not expected to lead to any exceedances of the air quality threshold for NO_x or particulate matter. The scheme is therefore not anticipated to have any impacts on pregnant women.

4.6.5 Disability

- Approximately 7.7% of the Study Area population are limited 'a lot' in their day-to-day activities, with a further 11.2% limited 'a little', indicating a notable proportion of residents with accessibility needs. As a result, a significant group may be more sensitive to disruption during construction and to changes in accessibility and connectivity during operation.
- Disabled people often rely on accessible, reliable and door to door transport systems to access essential services. During construction, road closures, diversions and reduced network reliability may make journeys more difficult or lengthier, while during operation, changes to the network may either improve or reduce accessibility depending on route design and connectivity.
- Across the UK, transport accessibility barriers remain widespread, including poorly designed streets and inconsistent infrastructure. There is a risk that, during both construction and operation, temporary or permanent changes to layouts, crossings or routes could introduce new barriers if inclusive design is not fully integrated.
- Disabled people typically make fewer and shorter journeys, meaning they may rely heavily on familiar, predictable routes. Disruption during construction, including temporary closures or altered travel patterns, may therefore have a disproportionate impact, and changes during operation may require adaptation to new or more complex routes.
- In Herefordshire's rural context, impacts are likely to be more pronounced due to limited public transport availability, resulting in fewer alternative routes during construction. There is also a greater reliance on private vehicles, taxis or community transport, which may be affected by diversions or delays, alongside longer travel distances to services, meaning disruptions or changes could significantly increase journey times.
- During construction, temporary works and traffic management may restrict crossing points or access routes. During operation, increased traffic speeds and volumes on certain routes may reduce the ability or willingness to cross roads, and new infrastructure may act as a physical or psychological barrier, particularly for those with reduced mobility.
- Disabled people may be disproportionately affected by both actual and perceived safety risks. Construction traffic, including HGV movements, may increase safety concerns and reduce confidence to travel. During operation, changes in traffic conditions, such as higher speeds or unfamiliar road layouts, may further reduce confidence in navigating the network, potentially leading to reduced independent mobility and increased reliance on carers or others.
- Access to healthcare, employment, education and social networks may be affected. During construction, temporary disruption to routes and services may reduce accessibility, particularly where alternative options are limited. During operation, the bypass may improve strategic connectivity and journey times, although these benefits may not be evenly experienced, particularly by those who do not rely on private vehicles.
- Generally, potential benefits include reduced traffic levels and congestion, which may improve local accessibility, road safety and air quality for nearby communities.

4.7 Socio-economic disadvantage

- Slow or unreliable transport can reduce effective access to employment (particularly for part-time work and low wage jobs). Reduced congestion in can improve journey reliability which can increase the number of reachable jobs within typical commute thresholds.
- Lower-income households can have fewer viable transport options. For those in more rural areas, they may experience forced-car ownership due to limited alternative transport options which can have negative economic impacts due to the costs associated with private cars. For households without access to car, this can make visiting essential services, education and employment opportunities more difficult and lead to household members being more reliant on public transport options.
- Different neighbourhoods are likely to experience various levels of transport connectivity and can also face transport disruption during construction. This can have disproportionate negative socio-economic impacts for different neighbourhoods through reduced access to services and employment.
- The completed scheme will provide improved access to the Hereford Enterprise Zone, particularly from the southwest quadrant of the city improving access to employment opportunities for residents of this area.

5. Consultation and engagement

Whilst there has not been a recent public consultation on Hereford Western Bypass Phase One, a consultation took place around route options and the planning process (2015 onwards) for the scheme when it was referred to as Southern Link Road. There were also wider bypass/transport package consultations between April 2017 and Feb–Mar 2018.

South Wye Transport Package Consultation

In 2014, a consultation was commissioned by Herefordshire Council as part of the South Wye Transport Package. The consultation focused on options for the new Southern Link Road[22] along with sustainable transport improvements. The consultation took place between 1 July 2014 and 8 August 2014. In-person events were held (with a total attendance of 199 people across the exhibitions) and there were 231 questionnaire responses.

The responses identifies that there was support for the opinion that traffic conditions in the South Wye area needed to be improved, congestion along the A465 and A49 was identifies as a transport problem, particularly the number of HGVs. In addition, the responses highlighted that accessibility to public transport was a key issue and that there should be greater cycling infrastructure and public transport provision.

6. Assessment of impacts

This section assesses the potential positive and negative impacts of Phase One of the Hereford Western Bypass scheme on protected characteristics groups. The assessment considers disproportionate and differential impacts on protected characteristic groups.

The assessment takes mitigation measures into consideration and combines the sensitivity of those affected with the predicted magnitude using the assessment matrix presented in Table 6-1 below.

[22] Southern Link Road was the previous term used to describe Phase One. Four route options were presented for connecting the A49 and the A465.

Table 6-1 Summary of impacts

Potential Impact	Key groups affected	Description of effects	Overall impacts	Mitigations/ further actions
Construction				
Air quality and noise	Children and older people People with respiratory or cardiovascular conditions Pregnant people	Construction works and increased construction traffic can reduce local air quality and cause noise. Older people, children, some people with disabilities and pregnant people can also be particularly vulnerable to the negative health impacts of poor air quality and noise. Overall, it is anticipated that with the mitigation measures in place, any impacts during construction works are negligible. Due to the negligible impacts, it is not anticipated that there will be disproportionate or differential equality impacts for protected characteristic groups.	Neutral	Timing controls to limit works during sensitive hours (e.g., near schools, care homes). In addition, best practice mitigation measures should be followed to minimise air quality impacts (for example, keeping machinery and dust causing activities away from receptors, erect screens or barriers around dusty activity, ensuring vehicles are switched off when station).

Restricted access during construction	Older people and children, people with mobility impairments	Temporary road closures, diversions, or disruption and can limit access to services. This can have disproportionate impacts on people with mobility impairments if diversions result in increased journey times or make journeys by car more difficult for users who require a car as a mobility aid. However, since the vast majority of the scheme on a completely new alignment, separate from the existing road and across current agricultural land, these impacts will be minimal.	Negative (minimal)	Construction management plans aim to maintain access to homes, healthcare, and services at all times. Targeted communication with accessible formats (easy-read, multiple languages if needed)
Traffic and road safety	Children, disabled people, older people	Increased traffic during construction may have negative impacts for groups at greater risk of road traffic accidents (children, older people, disabled people)[23]. This could increase fear and intimidation whilst making journeys and have negative health and safety impacts for such groups. However, since the vast majority of the scheme on a completely new alignment, separate from the	Negative (minimal)	A traffic management plan should be in place throughout the construction phase.

[23] Brake (2023) Research from Break shows the Extent of Child Road Casualties. Available at: Research from Brake shows the extent of child road casualties | Brake

		existing road, these impacts will be minimal.		
Operation				
Road safety	Benefits groups such as disabled people, elderly pedestrians, children and families People less likely to own cars such as low-income households and ethnic minorities	The bypass may reduce collisions on residential roads by decreasing traffic and congestion. This can positively impact groups at greater risk of pedestrian traffic accidents (such as children, older people and some people with disabilities). However, there may be a slight increase in severe collisions due to the higher-speed route.	Mixed (Moderate Positive urban / Minor-Moderate Negative rural)	To enhance safety, safe design principles will be used throughout the development of Phase One.
Accessibility and Journey Times	Elderly, disabled people	It is anticipated that the bypass will deliver shorter and more reliable journey times by easing congestion and removing traffic from in appropriate rural and residential roads. This may result in improved connectivity to jobs, services and healthcare which can support rural populations, benefit people with limited public transport access; and can reduce travel stress for those reliant on car travel (e.g., carers). This may also	Positive	Not applicable.

		bring positive socio-economic impacts.		
Economic opportunities	Working-age residents, including those in lower-income groups	Bypasses can stimulate local economic development, job creation, and investment and improve access to the enterprise zone and jobs. It is expected that through the provision of a more direct link to the Hereford Enterprise Zone (HEZ), a major employment site in Hereford, productivity will be improved by reducing the costs to businesses caused by congestion and delay, establishing a more attractive location for inward investment, and by improving residents' access to training, work and services. This may positively impact young people in accessing	Positive	Enhance equal access by linking employment zones to public transport and cycling routes.

		additional employment opportunities.		
Community severance	Older people and children, people with mobility impairments	New road schemes can result in community severance, making it more difficult for communities to access schools, shops or healthcare appointments which can disproportionately impact protected characteristic groups. However, whilst Phase One of the Bypass passes 500m from Grafton, the Scheme does not pass through villages resulting in severance. Access between Graton and the A49 Ross Road will be maintained at all times. Overall, therefore no negative impact is anticipated.	Neutral	Construction management plans aim to maintain access to homes, healthcare, and services at all times. Targeted communication with accessible formats (easy-read, multiple languages if needed)
Air and noise pollution	Benefits lower-income communities located along congested routes (e.g., Belmont) Could negatively impact those in previously quieter areas including deprived communities unable to relocate; elderly, children, people with disabilities, pregnant women.	With the scheme operational, both decreases and increases in pollutant concentrations are anticipated, due to changes in traffic flows and road layouts associated with the scheme, which could lead to improvements or deteriorations in air quality, respectively.	Neutral for Air Quality, Positive for Noise.	Low-noise road surfaces, acoustic barriers near settlements, Tree planting buffers and green corridors

		This is also expected to be the case in terms of changes to noise pollution.		
Land Acquisition and Displacement	Lower-income households, those dependent on farming land affected	It is recognised that the compulsory purchase of homes or land can disrupt communities and cause financial and emotional distress. However the council's approach is to use CPO as a last resort and has been actively pursuing a negotiated approach to land acquisition. The scheme is anticipated to reach an agreement with seven landowners for the acquisition of their land, through negotiation. The land to be acquired is largely agricultural. It is not anticipated that the loss of agricultural land will have significant commercial economic impacts. However, if the CPO process is required to resolve any	Neutral	Herefordshire Council has been engaged with landowners regarding different options to minimise the impact of the scheme on land and properties. Relevant information exchange with affected landowners has been on-going for the last 18 months, with provisions being made to support affected landowners as far as possible. This includes maintaining access for an additional crop season, moving Public Rights of Way to maintain access in the local area and landowners being compensated for land required at commercial rates.

		outstanding issues they could have negative wellbeing impacts. These can be more pronounced for some protected characteristic groups (for example, children).		

7. Conclusion and recommendations

This assessment has considered the potential impacts of Phase One of the Hereford Western Bypass on groups with protected characteristics, informed by a review of baseline demographic data, relevant policy context, and the identification of potential construction and operational effects.

Overall, the assessment identifies a combination of temporary adverse effects during construction and longer-term beneficial effects during operation, particularly in relation to improved connectivity, reduced congestion along key links and potential economic opportunities. However, there are also localised negative impacts, including potential negative impacts associated with loss of land resulting if compulsory purchase becomes necessary, and some redistribution of environmental impacts (e.g. noise and air quality) to new areas.

In relation to the PSED under Section 149 of the Equality Act 2010, this EqIA provides evidence that Herefordshire Council has had due regard to the three statutory aims:

- **Eliminating unlawful discrimination, harassment and victimisation:**
  The assessment has identified potential disproportionate impacts on certain groups (such as older people, children and disabled people), particularly during construction and in relation to accessibility and safety. Appropriate mitigation measures (e.g. traffic management, maintaining access, and environmental controls) have been recommended to minimise these risks.
- **Advancing equality of opportunity:**
  The scheme has the potential to improve access to employment, services and healthcare – particularly for rural populations and those currently affected by congestion and poor connectivity. Consideration has also been given to the differing needs of protected groups, for example those with mobility impairments or increased reliance on public transport.
- **Fostering good relations between different groups:**
  Based on the assessment, no overall impacts in terms of relations between different groups are expected as a result of the scheme.

The EqIA demonstrates that equality considerations have been embedded within the design and assessment process and that potential adverse impacts have been identified transparently alongside mitigation measures. However, the assessment also highlights some limitations, including the evolving nature of Phase 2 and limited primary consultation data specific to equality groups at this stage.

To strengthen ongoing compliance with the PSED, it is recommended that:

1. Communication with residents and protected characteristic groups is embedded within the construction communication plan to ensure local communities and groups are kept informed of progress and traffic management proposals and are given the opportunity to provide feedback. This can help to facilitate protected characteristic groups sharing specific needs or requirements during construction.
2. Construction management plans include specific measures to protect vulnerable groups (e.g. clear signage, safe diversions, accessible communications).
3. Monitoring and review mechanisms are established to track equality outcomes during construction and operation.
4. The EqIA is updated at key project milestones, including the progression of Phase 2, to ensure that equality considerations remain current and robust.

Appendix F – Economic Appraisal Report

Hereford Western Bypass Phase 1

Economic Appraisal Report

June 2026

Quality Information

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Section 1 – Overview

1.1 Introduction

1.1.1 This report presents an economic evaluation of the proposed Hereford Western Bypass Phase 1 scheme (called the “scheme”) using forecasts derived from the Hereford Strategic Transport Model (HSTM). The evaluation follows the methodology outlined in the Appraisal Specification Report and supports the Full Business Case (FBC) submission for the Scheme.

1.1.2 The economic assessment covers the results of the appraisal conducted using the Core Scenario but also includes sensitivity tests for the High and Low Scenarios from the Common Analytical Scenarios (CAS). It evaluates the scheme's impact on journey time reliability, physical activity and accidents. Additionally, the assessment considers the scheme's costs and includes these costs when calculating a Benefit Cost Ratio (BCR).

1.1.3 This Economic Appraisal Report outlines the forecast monetised impacts of the scheme. However, there are other important objectives and impacts that have not been monetised, which play a significant role in the decision-making process.

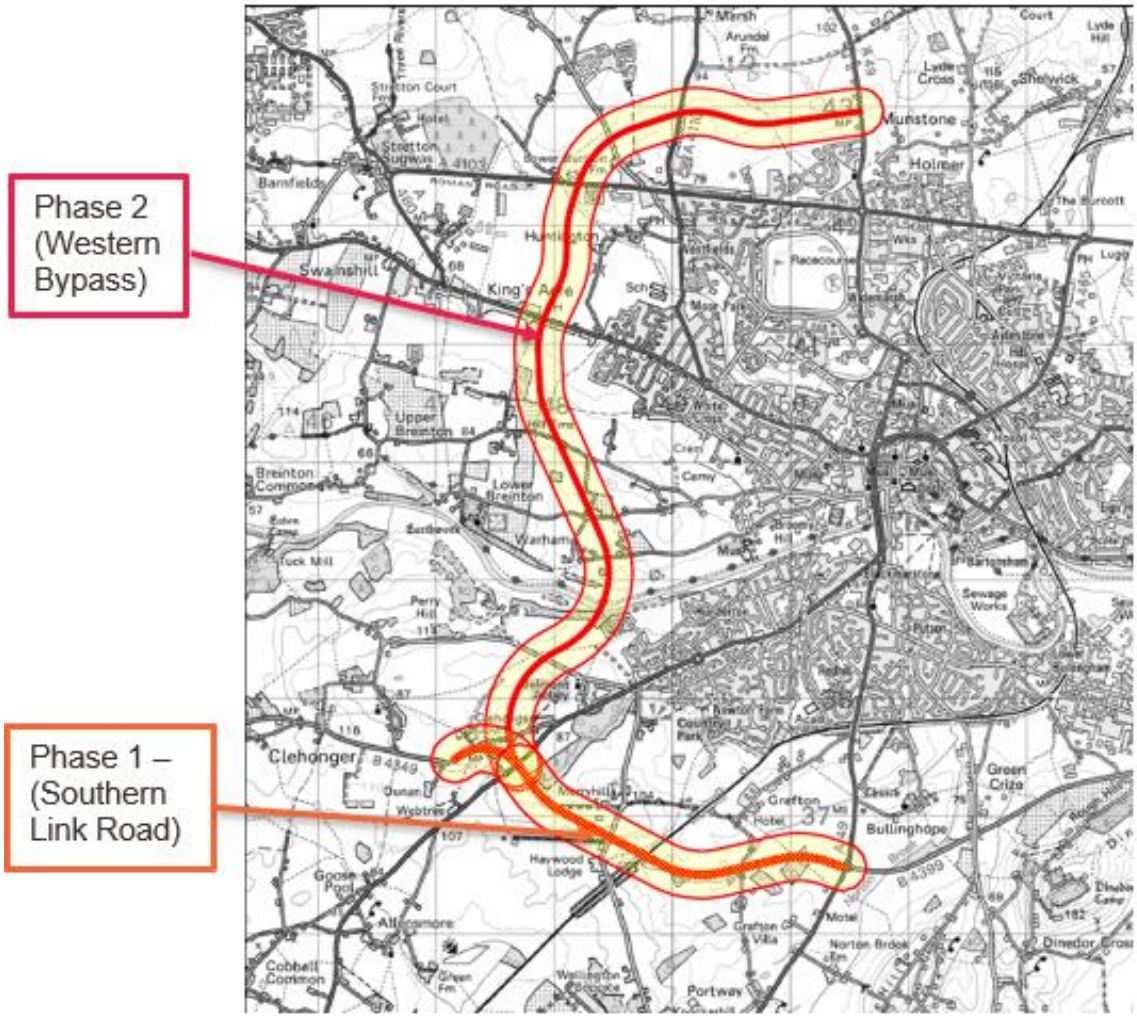
1.2 Scheme Overview

1.2.1 The full extent of the Western Bypass is shown in **Figure 1-1**, and is made-up of two parts; Phase One consisting of the road link between the A49 and A465 formerly referred to as the Southern Link Road (SLR) that is the “scheme”, and Phase Two which connects with Phase One at the A465 junction and forms the northern section of the route, linking back to the A49 north of the city. The alignment of Phase One is fixed and has the benefit of having full planning permission in place. The alignment of Phase Two is at an earlier stage of development with proposals expected in 2027.

1.2.2 Phase One will provide a new link road between the A465 and A49 to the south-west of Hereford city centre. It is a 3km long section of rural all-purpose single carriageway, with a design speed of 60mph. The scheme was developed to an advanced stage and received planning permission in 2016 (which remains extant), with work commencing on a Full Business Case (FBC) for the South Wye Transport Package (SWTP) (which included the Phase One scheme) in 2018.

1.2.3 The scheme seeks to address existing congestion and the associated traffic problems in the orridor, with the aim of facilitating future growth. Additionally, Phase One and Two combined seek to enhance network reliability and resilience by providing a second major road crossing of the River Wye to reduce reliance on the A49 Greyfriars Bridge.

Figure 1-1: Scheme Location



1.3 Report Structure

1.3.1 This Economic Appraisal Report contains the following sections:

- Section 2– Estimation of Scheme Costs, detailing the derivation of the costs of construction and maintenance for the Scheme.
- Section 3– Estimation of Benefits – TUBA, detailing the TUBA assessment to estimate the Core Scenario user benefits of the Scheme, and the assessment for High and Low Scenarios.
- Section 4– Estimation of Benefits – Greenhouse Gases; detailing the derivation of the assessment of Scheme-related greenhouse gases using the DfT's Vehicle Emissions Carbon Tool (VECAT) and greenhouse gases TAG workbook.
- Section 5– Estimation of Benefits – Construction Impacts: detailing the derivation of the assessment of Scheme-related construction impacts, using SATURN and TUBA software.
- Section 6– Estimation of Benefits – Accidents, detailing the application of the approach set out in CoBA-LT to assess the change in accidents forecast to result from the Scheme.
- Section 7– Estimation of Benefits – Journey Time Reliability: Journey Time Reliability: this section details the assessment of the benefits due to improved journey time reliability through the inclusion of the Scheme.
- Section 8– Local Noise Assessment: this section details the assessment of the impact of the Scheme on local traffic noise levels through the inclusion of the Scheme.
- Section 9– Air Quality Assessment: this section details the assessment of the impact of the Scheme on air quality levels with the inclusion of the Scheme.

- Section 10– Wider Impacts Assessment: this section summarises the assessment of the forecast Wider Impacts (as defined in TAG Unit A2.1) of the Scheme.
- Section 11– Assessment of Distributional Impacts: this section details the screening and assessment (where deemed necessary) of the distributional impacts of the Scheme in-line with the guidance set out in TAG Unit A4.2.
- Section 12– TEE, Public Accounts and AMCB Tables: this section provides the TAG Transport Economic Efficiency (TEE), Public Accounts, and Analysis of Monetised Costs and Benefits (AMCB) tables required for the Full Business Case submission.

Section 2 – Estimation of Scheme Costs

2.1 Introduction

2.1.1 This section details the costs of construction and maintenance of the Scheme as used in the economic assessment.

2.2 Summary of Scheme Costs

2.2.1 Project cost estimates encompass every expenditure necessary to deliver, operate, and maintain the Hereford Southern Bypass – Phase 1 throughout the full appraisal horizon. These costs cover:

1. **Investment costs**
    a. Capital construction
    b. Land and compensation
    c. Statutory undertakers' works
    d. Utility diversions
    e. Environmental mitigation measures
    f. Contractual administration and project management
    g. Design, supervision, and risk allowances
2. **Operating, maintenance and renewal costs**
    a. Routine maintenance (inspections, minor repairs)
    b. Periodic renewal (resurfacing, structural renewal)
    c. Lifecycle replacement over the appraisal period

2.2.2 The base costs for the scheme have been estimated through a bill of quantities. The costs encompass project development activities, construction, and support resources and are distributed between financial years 2026/27 and 2028/29. Sunk project development costs incurred between financial years 2024/25 and 2025/26 inclusive have been excluded as they are unrecoverable regardless of the scheme's construction.

2.2.3 The present value cost (PVC) of the scheme has been developed in line with DfT TAG Unit A1.2 Scheme Costs. The initial base cost has been calculated as the total cost developed through the bill of quantities, excluding sunk costs and QRA. This results in an initial base cost of £37.2m in 2026 prices.

2.2.4 DfT TAG Unit A1.2 requires an adjustment for optimism bias or contingency, with the larger value applied. An optimism bias uplift of 11.8% was derived through a mitigation assessment and exceeds the QRA uplift of 8.8%; therefore, the optimism bias adjustment has been applied, resulting in a cost of £41.8m in 2026 prices.

2.2.5 Costs were then deflated and discounted to 2023 values, resulting in a scheme cost of £33.2m. A market price adjustment was subsequently applied in accordance with DfT TAG Unit A1.2. This results in a total PVC of £39.59m in 2023 factor prices in accordance with WebTAG requirements. **Table 2-1** below summarises the Scheme cost calculations.

Table 2-1: Scheme Cost Calculation (£000s)

Base Cost (2026 prices)	Real Cost Adjustment (2026 Prices)	Optimism Bias Adjustment (2026 Prices)	Deflated, Discounted, and Corrected for Market Prices (2023 Prices)
£37,162.5	£37,381.5	£41,792.6	£39,558.1

Section 3 – Estimation of Benefits – TUBA

3.1 Introduction

3.1.1 TUBA is the Department for Transport's appraisal software used to estimate the transport user benefits (changes in time and vehicle operating costs), changes in indirect tax revenue and greenhouse gases as the result of a proposed scheme.

3.1.2 Using the forecast year models developed for the appraisal of the Scheme, the forecast demand, time and distance matrices for the Without and With Scheme forecasts for the Core Scenario have been used for the TUBA assessment.

3.1.3 This assessment has used forecast models for the following years:

- 2028 – Opening Year for the Scheme;
- 2043 – Design Year, 15 years after the Opening Year; and
- 2061 as the forecast horizon year.

3.1.4 A 60-year appraisal period has been adopted, in-line with TAG, from the assumed scheme opening year of 2028 to a horizon year of 2087. The current year assumed within the assessment is 2026, with the benefits and costs given in 2023 prices and values.

3.2 TUBA Economic Assumptions

3.2.1 The assessment of the Scheme has made use of the standard TUBA economics file issued with v1.10.01 of the software based on the V2.03 TAG databook (May 2026); however, amendments have been made to the file to provide consistency with the user classes in the HSTM highway assignment.

3.2.2 The latest May 2026 TUBA Economic parameters file contains revised vehicle type assumptions for LGV personal and LGV freight. Within HSTM, the highway model includes a single LGV user class. To make the model outputs compatible, we have applied splits to LGV and HGV to increase the number of user classes input to TUBA from five to seven with LGV split into Freight/No-freight and HGV split into OGV1 and OGV2

3.2.3 This change has been made to all relevant TUBA economics files, including the High and Low scenarios as well as the standard file.

3.3 TUBA Annualisation Assumptions

3.3.1 The highway model contained within HSTM represents three weekday modelled hours; an AM peak hour (08:00 to 09:00), an average interpeak hour (between 09:00 and 15:00), and a PM peak hour (16:00 to 17:00). In addition, there is Saturday peak hour (11:00 to 12:00).

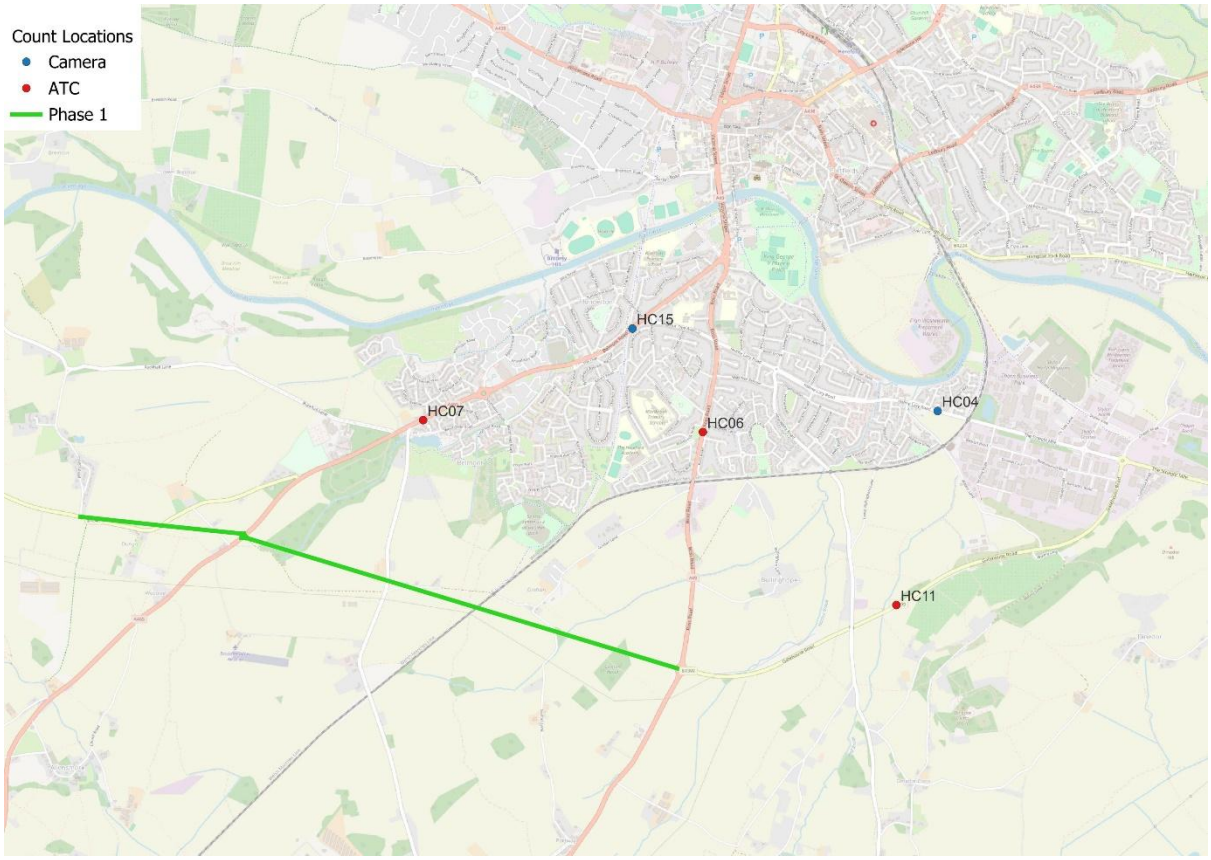
3.3.2 A freeflow hour assignment using negligible demand was also created to reflect uncongested travel conditions outside of the peak hours during a typical week. This assignment would reflect time savings of the scheme only and not the impacts of congestion so would be a conservative estimate of benefits for hours with moderate traffic levels.

3.3.3 Time and distance data from these five representative modelled hours are used as an input to TUBA, along with factors to reflect how many hours in a year each reflect so that annual benefits can be calculated. These are referred to as annualisation factors and their derivation is discussed in the following sections.

3.4 Selected Count Data

3.4.1 Long-term automatic traffic count data have been obtained for locations south of Hereford, close to the scheme, for the full years of 2023, 2024 and 2025. Within this data set, five count sites were identified within the Scheme area. **Figure 3-1** shows the locations of the count sites selected. Data from the five sites were analysed; checks were undertaken to ensure that British Summer Time (BST) was correctly reflected and data was consistent between ATC sites and ATC locations.

Figure 3-1: Location of Count Sites Used in Annualisation Calculation



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3.4.2 Data from all sites were processed for use in the annualisation calculations, with each dataset undergoing cleaning and quality assurance checks. Days throughout the year were categorised according to school holidays, public holidays, weekdays, weekends, and individual days of the week to identify distinct travel patterns.

3.4.3 Analysis indicated that the majority of sites exhibited similar traffic patterns, with the exception of HC11. Consequently, it was considered unnecessary to include all sites in the final analysis, and only HC06 and HC11 were retained as representative examples.

3.4.4 Sensitivity testing was undertaken using alternative assumptions, including the inclusion of all sites. However, these tests had a negligible impact on the resulting annualisation factors. This is because the factors are primarily influenced by the distribution of traffic within the AM peak, interpeak, and PM peak periods, and the variation observed between sites during these periods was insufficient to materially affect the calculated annualisation factors

3.4.5 Analysis of the travel patterns showed that there were distinct patterns for each of the following day types shown in Table 3-1 with the number of days each represents in 2025.

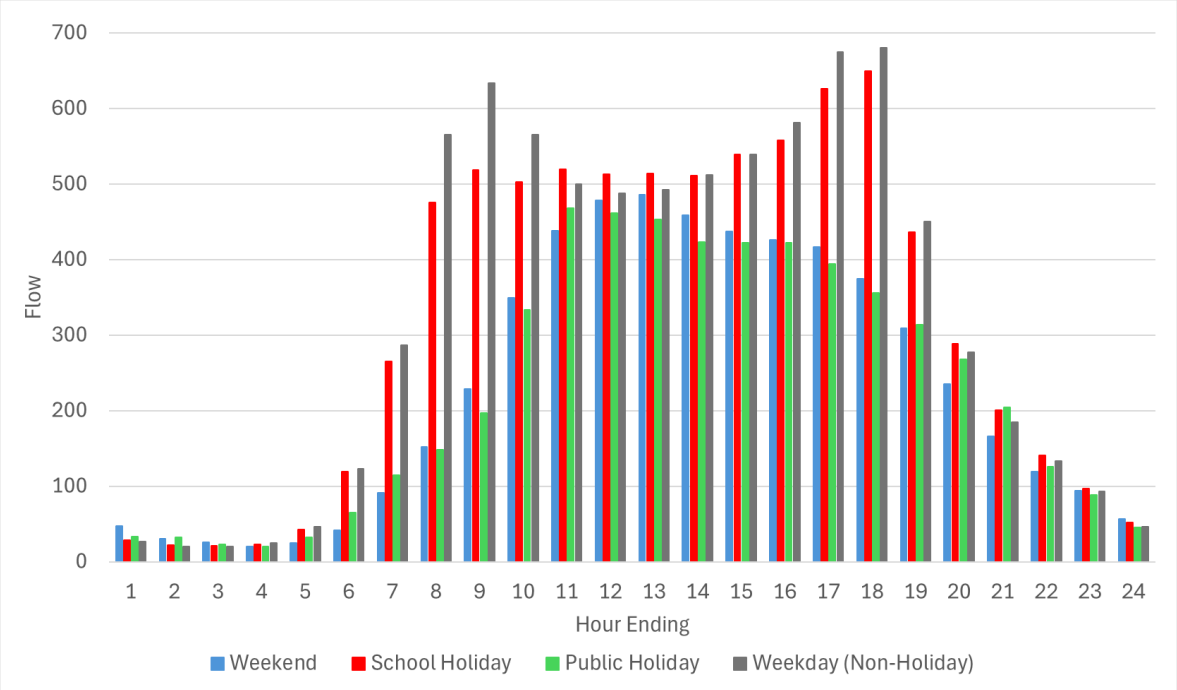
Table 3-1: Number of days by classification type in 2025

Day Type	Quantity in 2025
Public Holiday	8
Weekend	104
Weekday	199
School Holiday	54
Total	**365**

3.5 Flow Profile by day type classification

3.5.1 **Figure 3-2** presents the weighted average profiles for HC06 and HC11 by day type. The results indicate that the traffic profiles for public holidays and weekends are sufficiently similar to justify combining these categories. It is also evident that the characteristic AM peak observed on typical weekdays is largely absent during school holiday periods, reflecting a reduction in school-related travel demand.

Figure 3-2: Combined Flow Profile for Area of Influence (Weekday, Weekend, Holidays)



3.5.2 **Figure 3-3** to **Figure 3-5** present the flow profiles for a typical non-holiday weekday, a school holiday weekday, and a combined weekend/public holiday day type. Each hour has been allocated to one of the modelled periods described in **Section 3.3**.

3.5.3 The profiles indicate that off-peak flow patterns are generally consistent across all day-type classifications. For weekends and public holidays, traffic flows remain relatively uniform between 10:00 and 17:00, with demand levels comparable to those observed during the Saturday modelled period. During school holidays, the AM peak period is notably less pronounced, with demand levels similar to those observed during the interpeak period.

3.5.4 **Figure 3-3** to **Figure 3-5** also demonstrate the presence of shoulder peak periods. On weekdays, these occur immediately following the PM peak, while on weekends and public holidays they are evident during both the morning and evening periods. For the purposes of the annualisation calculations, these shoulder peak periods have been assumed to be representative of interpeak demand levels and have therefore been assigned the corresponding interpeak costs.

Figure 3-3: Flow Profile and allocated time-period for annualisation (Weekdays)

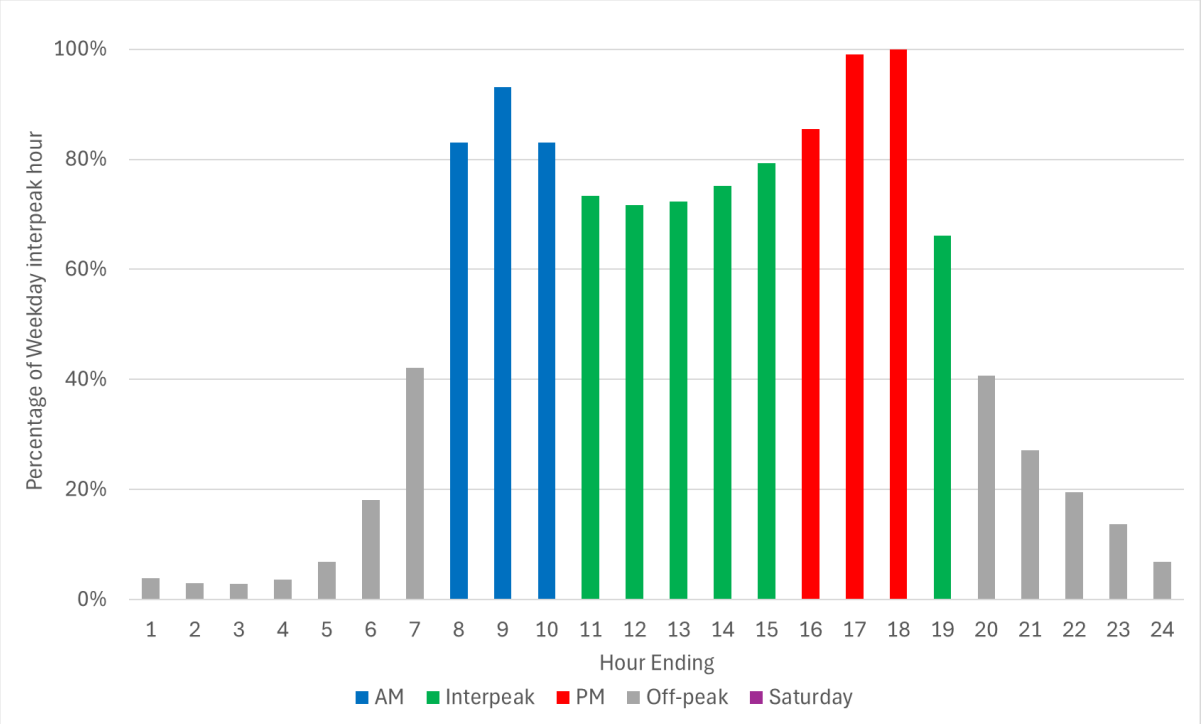


Figure 3-4: Flow Profile and allocated time-period for annualisation (School holiday)

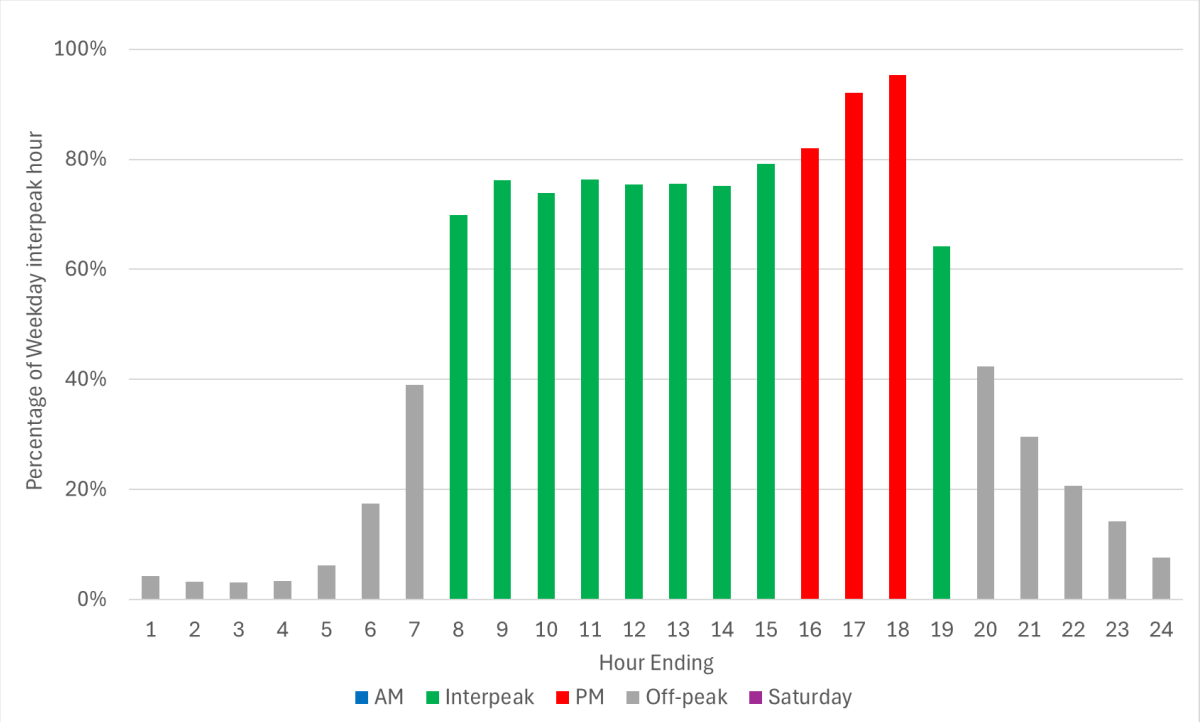
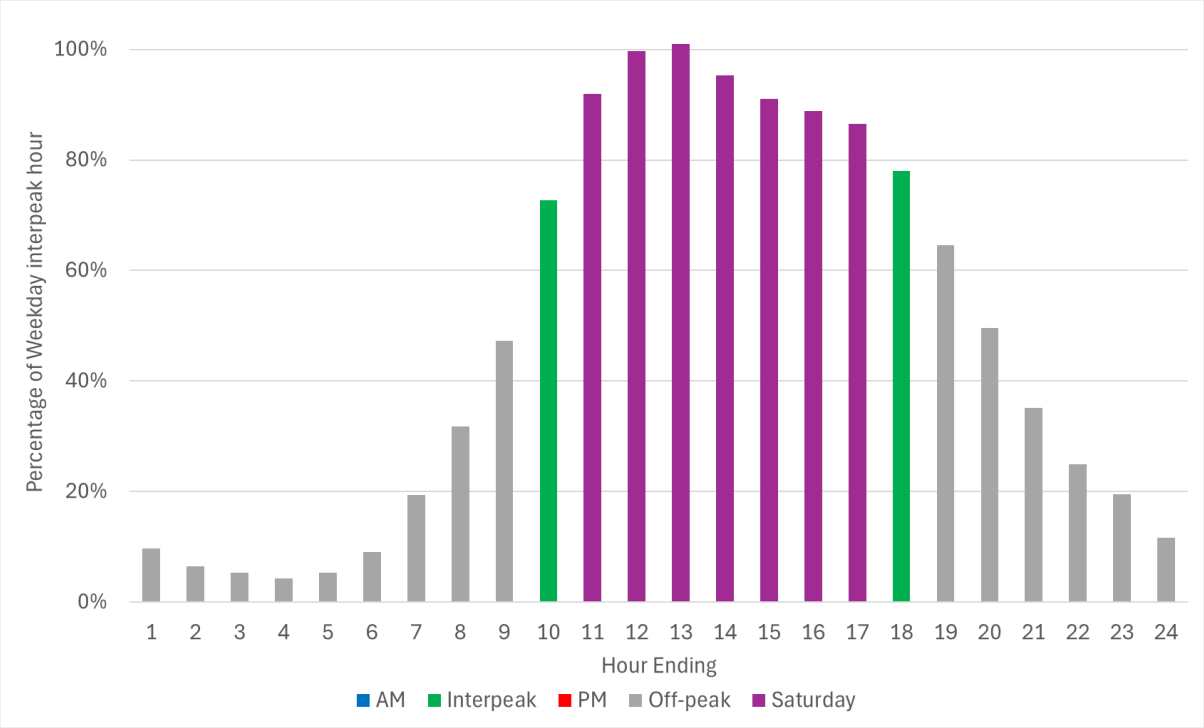


Figure 3-5: Flow Profile and allocated time-period for annualisation (Weekend and Public holiday)



3.5.5 Based on the observed flow profiles and the assumptions described above, each hour of the day has been allocated to the most appropriate modelled time period for the purposes of the annualisation calculations. **Table 3-2** summarises the allocation of hours by day-type classification to the corresponding modelled period.

3.5.6 The allocations reflect the temporal distribution of traffic demand observed within each day type, including the treatment of shoulder peak periods as representative of interpeak conditions. The resulting classifications provide the basis for applying the appropriate demand and cost assumptions when deriving annualisation factors.

3.5.7 Hours between 21:00 and 06:00 have been excluded from **Table 3-2** as these periods are consistently characterised by low traffic volumes across all day types and have been assumed to represent off-peak conditions for both demand and cost calculations.

Table 3-2: Allocation of hours (06:00-21:00) by day type classification to modelled time periods

Hour	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Weekday	OP	AM	AM	AM	IP	IP	IP	IP	IP	PM	PM	PM	IP	OP	OP
School holiday	OP	IP	IP	IP	IP	IP	IP	IP	IP	PM	PM	PM	IP	OP	OP
Weekend and Public Holiday	OP	OP	OP	IP	S	S	S	S	S	S	S	IP	OP	OP	OP

3.6 Annualisation Factors

3.6.1 **Table 3-3**: presents the final annualisation factors derived from the analysis described above. The factors have been calculated using the classified day-type profiles and the allocation of hours to the modelled time periods, taking account of variations in traffic demand across weekdays, school holidays, weekends, and public holidays.

3.6.2 In addition to the annualisation factors, the table sets out the demand and cost assumptions applied to each time period for input into TUBA. For each modelled period, the table identifies the representative demand level used in the calculations and the corresponding cost basis assumed for annualisation.

Table 3-3: Final Annualisation Factors

Period	Description	Demand	Cost	Factor
1	AM Peak (weekday)	AM	AM	554
3	Interpeak	IP	IP	1793
2	PM Peak (weekday + school holiday)	PM	PM	718
4	Off-Peak	IP	Freeflow	1016
5	Weekend+ Bank Holiday	Saturday	IP	840

3.7 Masking of TUBA Forecasts

3.7.1 It is typical for any highway assignment model of the scale of HSTM to exhibit model 'noise' between any two assignment results. This can manifest itself as changes in assigned volumes and / or travel costs between the 'With Scheme' and ''Without Scheme' forecasts in areas of the model not expected to be impacted by the cheme.

3.7.2 A sectoring system has been defined (largely based on Middle Layer Super Output Areas and Districts within Herefordshire and counties surrounding Herefordshire) to remove this model assignment noise from the economic assessment of the scheme. Benefits and disbenefits between sectors which are not expected to experience any change in travel costs due to the scheme are removed from the assessment.

3.7.3 **Figure 3-6** to

3.7.4 **Figure** 3-8 show the sector system adopted, with **Table 3-4** showing the movements which have been included (highlighted in grey) and excluded (unhighlighted) from the assessment. In summary:

- all movements to / from the Area of Influence have been included in the assessment except for trips from Central Hereford; and
- for other movements, only those considered likely to experience a material change in travel conditions as a result of the scheme have been included.

Figure 3-6: TUBA Assessment Sector System: Hereford and surrounding area

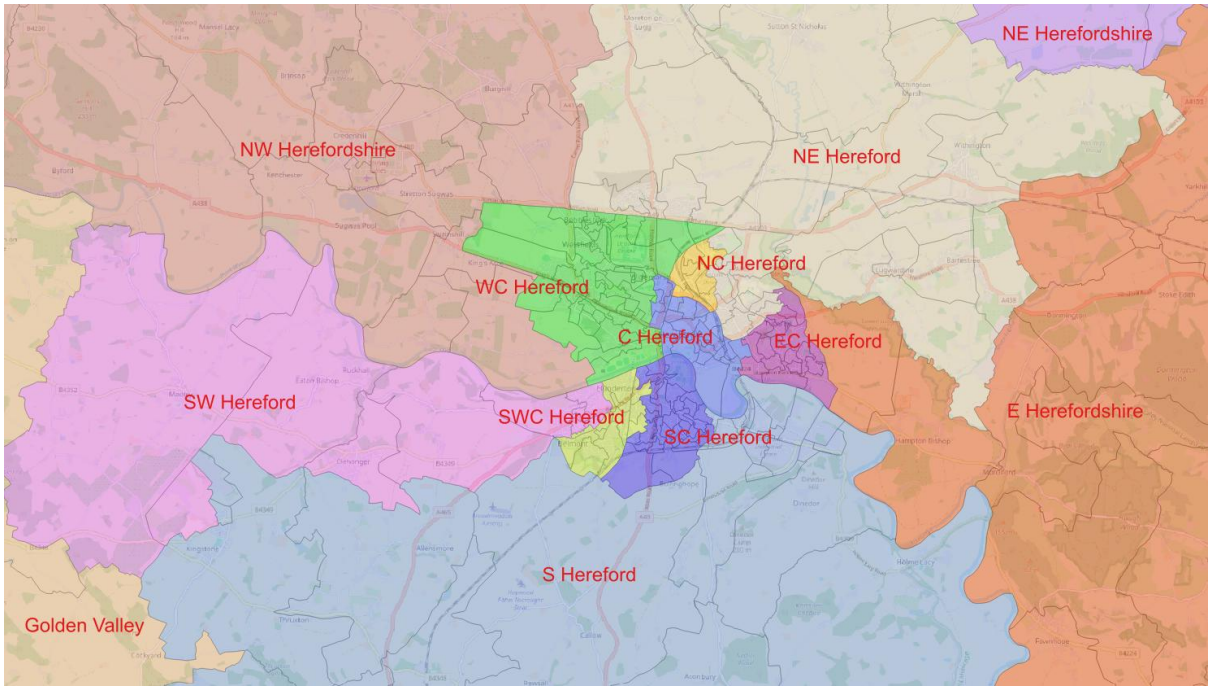


Figure 3-7: TUBA Assessment Sector System: West England and Wales

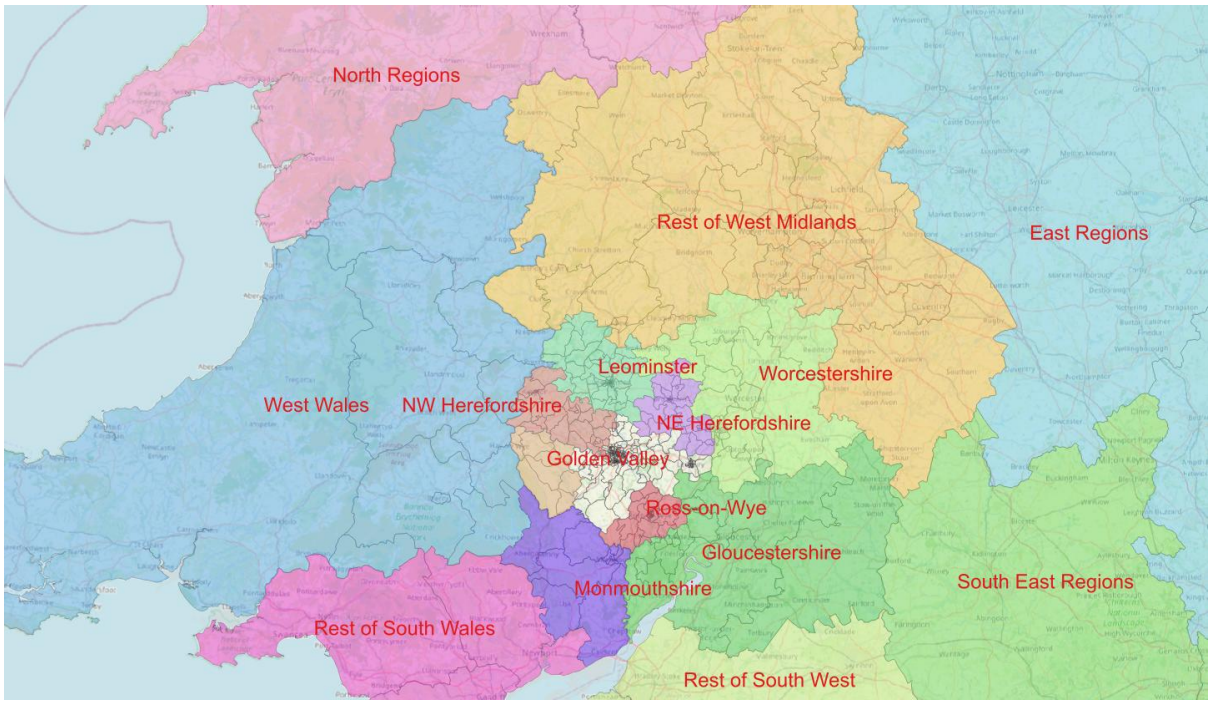


Figure 3-8: TUBA Assessment Sector System: Furthest extent (excluding Scotland)

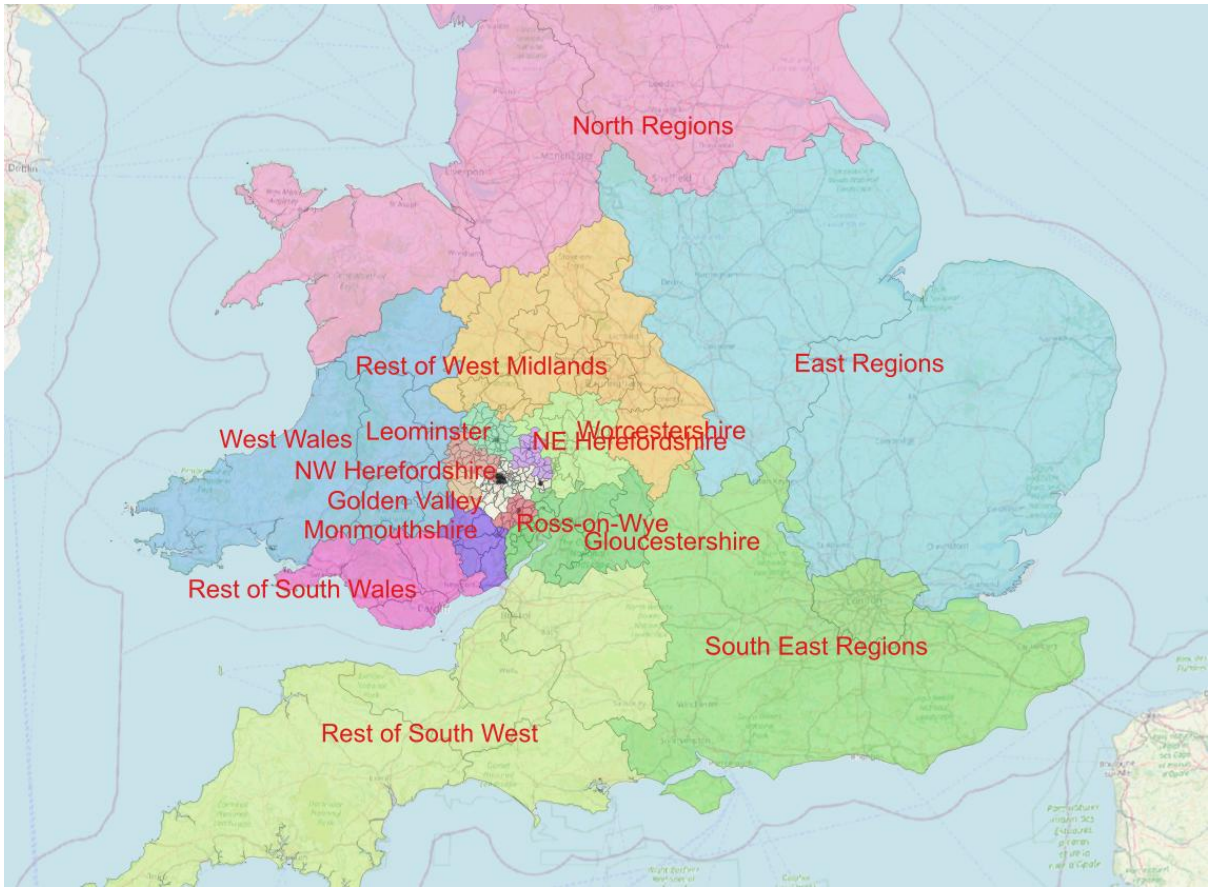


Table 3-4: Included Sector-Sector Movements (Shown in Grey)

	NC Hereford	C Hereford	EC Hereford	WC Hereford	NE Hereford	SC Hereford	S Hereford	SWC Hereford	SW Hereford	E Herefordshire	NW Herefordshire	Ross-on-Wye	Golden Valley	Leominster	NE Herefordshire	Rest of West Midlands	Worcestershire	Gloucestershire	Monmouthshire	Rest of South Wales	West Wales	North Regions	East Regions	South East Regions	Rest of South West	Scotland
NC Hereford																										
C Hereford																										
EC Hereford																										
WC Hereford																										
NE Hereford																										
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E Herefordshire																										
NW Herefordshire																										
Ross-on-Wye																										
Golden Valley																										
Leominster																										

NE Herefordshire																										
Rest of West Midlands																										
Worcestershire																										
Gloucestershire																										
Monmouthshire																										
Rest of South Wales																										
West Wales																										
North Regions																										
East Regions																										
South East Regions																										
Rest of South West																										
Scotland																										

3.8 Summary of TUBA Forecasts

3.8.1 **Table 3-5** summarises the TUBA scheme benefits for the Core Scenario including benefits accumulated over the 60-year appraisal period which includes all the modelled forecast years.

3.8.2 **Table 3-5** also provides a breakdown of the scheme benefits by trip purpose, split by travel time savings and changes in vehicle operating costs, and for indirect tax revenues as required within the TAG Transport Economic Efficiency (TEE) table.

3.8.3 Table 3-5 shows that for the Core Scenario the estimated present value of benefits from the TUBA assessment is around £58m over the 60-year appraisal period. This includes forecasts of around £52m in travel time benefits, £14m of vehicle operating cost benefits and a £7.5m increase in indirect tax revenues.

3.8.4 TUBA also reports greenhouse gas impacts. TUBA greenhouse gas impacts are not used for the FBC and are thus not reported in this EAR. A separate greenhouse gas assessment has been calculated outside TUBA using the DfT's VECAT. This is discussed in Section 4.

Table 3-5: Discounted TUBA Benefits – Core Scenario, 2023 Prices and Values, £1000s

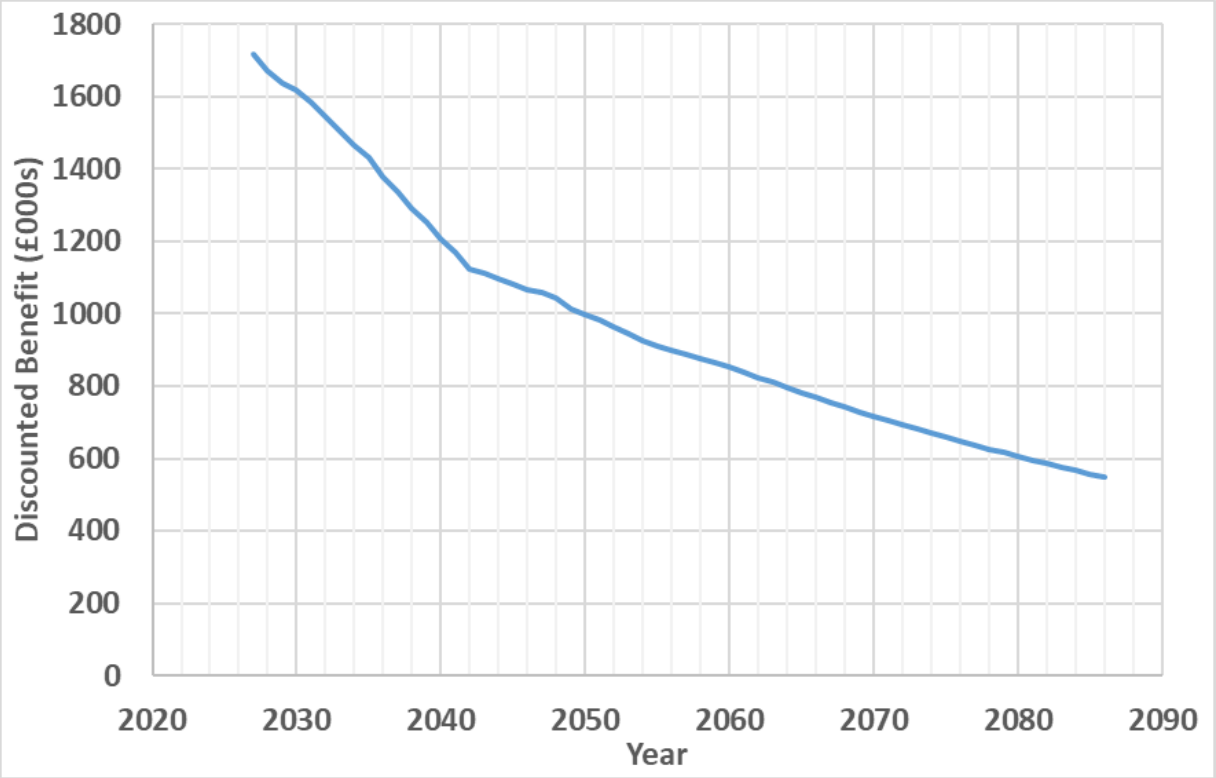
	Travel Time	Vehicle Operating Costs	Total
Non-Business: Commuting	£11,961	£47	£12,008
Non-Business: Other	£22,764	£15,734	£38,498
Business (Freight)	£9,571	-£1,175	£8,396
Business (Personal)	£7,378	-£544	£6,834
Total	***£51,674***	***£14,062***	***£65,736***

Indirect Tax Revenues	-£7,490
Present Value of Benefits	***£58,246***

3.8.5 TUBA assumes that the input time, distance and demand matrices are constant after the final forecast year of 2061. The only impact on benefits after the final modelled year are changes in value of time and discounting. This usually results in a "tailing off" of the scheme benefits after the final modelled year.

3.8.6 **Figure 3-9** below shows this in graph form. The scheme benefits, even allowing for discounting, increase after the scheme opening year until the scheme design year of 2043. From this point, the Scheme benefits no longer increase at a rate to offset the impact of discounting and start to decrease, with the decrease occurring faster after the final modelled year of 2061.

Figure 3-9: Core Scenario TUBA Benefits by Year (2023 Prices and Values, £000s)



3.8.7 **Table 3-6** provides a breakdown in the forecast scheme benefits by the five time periods included within the TUBA assessment and combined for the three modelled forecast years of 2028, 2043 and 2061. The overall 60-year appraisal value is also included.

3.8.8 The results in **Table 3-6** are strongly influenced by the calculated annualisation factors, among which the annualisation factor for the Interpeak period is the largest.

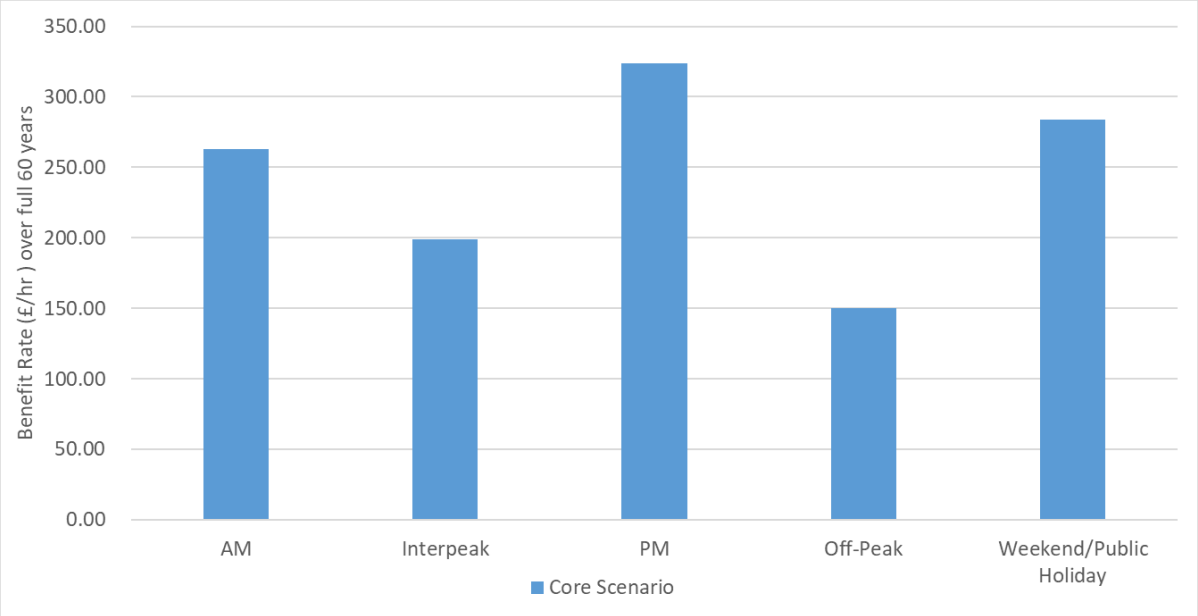
Table 3-6: Discounted TUBA Benefits (excluding greenhouse gases) by Time Period, 2023 Prices and Values, £1000s

Year	AM	Interpeak	PM	Off-Peak	Weekend	60 year Total
Core Scenario	£8,732	£21,379	£13,953	£9,156	£12,514	***£65,734***

Note: figures may not match those presented in Table 3-5 due to rounding within the TUBA output files

3.8.9 **Figure 3-10** shows the forecast scheme benefits within the four time periods expressed on a per hour basis, i.e. excluding the effects of annualisation. This figure shows that forecast scheme benefits per hour are forecast to be highest in the morning, evening and weekend peaks, with the lowest levels of scheme benefits per hour forecast during the interpeak and off-peak.

Figure 3-10: Discounted TUBA Benefits per hour



Common Analytical Scenarios

3.8.10 As detailed within the 'HSTM Core Scenario Forecasting Report', the HSTM model can be set up to test CAS sensitivity tests using the methodology detailed within the TAG Uncertainty Toolkit and TAG Unit M4.

3.8.11 The CAS are a set of seven consistent, off-the-shelf and multi-modal scenarios exploring national level uncertainties which have been developed by the DfT for the purposes of sensitivity testing of forecasts. As described in Section 4.1.2 of Unit M4, the CAS are preferred substitutes for the High and Low Growth Scenarios.

3.8.12 Two of the CAS were selected for assessment, based on their relevancy to the scheme and likely impacts on the scheme appraisal. These CAS are:

- High Economic Growth;
- Low Economic Growth;

3.8.13 Using these CAS sensitivity tests, TUBA assessments of the scheme benefits have been undertaken using all the forecast years. The appropriate TUBA economics file has been used in each case, as discussed in the TUBA 1.10.01 CAS guidance document. The results of these sensitivity tests are detailed in **Table 3-7** and **Table 3-8**.

Table 3-7: TUBA Benefits – High Economic Growth, 2023 Prices and Values, £1000s

	Travel Time	Vehicle Operating Costs	Total
Non-Business: Commuting	£13,648	-£16	£13,632
Non-Business: Other	£25,392	£16,727	£42,119
Business (Freight)	£10,724	-£1,348	£9,376
Business (Personal)	£8,435	-£515	£7,920
Total	*£58,199*	*£14,848*	***£73,047***

Indirect Tax Revenues	-£7,959
Present Value of Benefits	***£65,088***

Table 3-8: TUBA Benefits - Low Economic Growth, 2023 Prices and Values, £1000s

	Travel Time	Vehicle Operating Costs	Total
Non-Business: Commuting	£10,798	£79	£10,877
Non-Business: Other	£20,374	£14,989	£35,363
Business (Freight)	£8,857	-£1,172	£7,685
Business (Personal)	£6,015	-£483	£5,532
Total	*£46,044*	*£13,413*	***£59,457***

Indirect Tax Revenues	-£7,235
Present Value of Benefits	***£52,222***

3.8.14 The results of the CAS sensitivity tests are as would be expected. The High Economic Growth scenario produces larger benefits as the scenario involves greater levels of economic growth and corresponding higher traffic levels, which in-turn cause more congestion in the Without Scheme case. The Behavioural and Low Growth scenarios produce correspondingly lower benefits due to lower levels of growth and car traffic growth.

3.8.15 The following table provides further detail on the forecast scheme benefits detailed above. **Table 3-9** provides a summary of the forecast scheme benefits for the Core Scenario and the CAS.

Table 3-9: TUBA Benefits by Scenario and Modelled Year, 2023 Prices and Values, £1000s

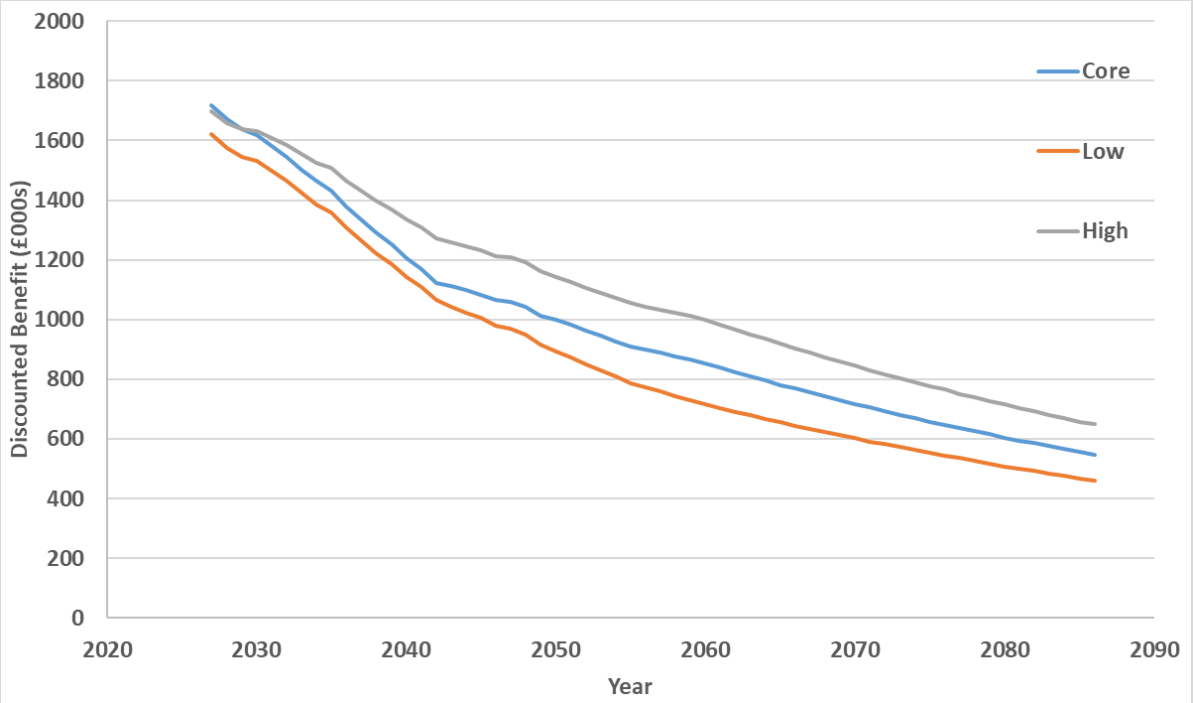
Scenario	2028	2043	2061	60-year Total
Core Scenario	£2,545	£1,210	£903	*£65,736*
Low Economic Growth	£2,448	£1,147	£757	*£59,457*
High Economic Growth	£2,540	£1,374	£1,051	*£73,047*

Note: figures may not match those presented in Table 3-5 due to rounding within the TUBA output files

3.8.16 **Figure 3-11** illustrates the annual distribution of the CAS TUBA benefits. It highlights that the benefits for the Core Scenario generally sit between the High and Low Economic Growth scenarios by year as

well as for the total benefits over the 60-year period. The benefit profiles for the other CAS scenarios closely follow that of the Core Scenario.

Figure 3-11: Discounted CAS TUBA Benefits by Year (2023 Prices and Values, £000s)



Note: figures may not match those presented in Table 3-5 due to rounding within the TUBA output files

3.9 Review of TUBA Warnings

3.9.1 In-line with the guidance given by the TUBA User Manual and associated guidance notes, all warnings produced by the Core Scenario have been investigated. In total, TUBA identified 85,416 warnings, none of them “serious”.

3.9.2 The TUBA User Manual Tables 5.2 to 5.4 outline the various limits used by TUBA to identify warnings. There is also information on how serious warnings are identified, which occur where the ratio of the Without Scheme to With Scheme time or distance is above 3 or below 1/3. **Table 3-10** briefly outlines the warnings produced by TUBA for this scheme assessment.

Table 3-10: Summary of TUBA Warnings

Warning	Total	Serious
DS speeds greater than limit for the following	130,824	0
DS speeds less than limit for the following	234,839	0
DM speeds greater than limit for the following	130,668	0
DM speeds less than limit for the following	235,951	0
Ratio of DM to DS travel distance lower than limit	13,677	0
Ratio of DM to DS travel distance higher than limit	4,220	0
Ratio of DM to DS travel time higher than limit	15,196	0

3.9.3 All the warnings produced by TUBA when assessing the Core Scenario have been reviewed.

3.9.4 Time ratios are outside TUBA’s preferred range of 0.67-1.5 for a (proportionally) small number of cells and none of these warnings are serious (outside the range 0.3-3). The total trips associated with cells with time ratio warnings is of the order of ~60 across all purposes for each modelled year. This is very small number compared to the overall number of trips. Accordingly, it was decided that there is no need for numerical interpolation to address any material rule-of-half errors.

3.9.5 The distance ratios are exceeded by the order of ~130 across all purposes for each modelled year. This is still a very small number compared to the overall number of trips and with similarly negligible effect on total user benefit.

3.9.6 A very large number of “speeds outside range” warnings are generated (none of them serious).

3.9.7 Speeds greater than the limit of 85kph are numerous, the largest speed generated being 99 kph. However, these relate almost entirely to HGV travel and generally represent motorway movements external to the AOI. The substantial majority have zero trips; they represent around 1,200 trips in total in 2043, almost entirely external-external trips.

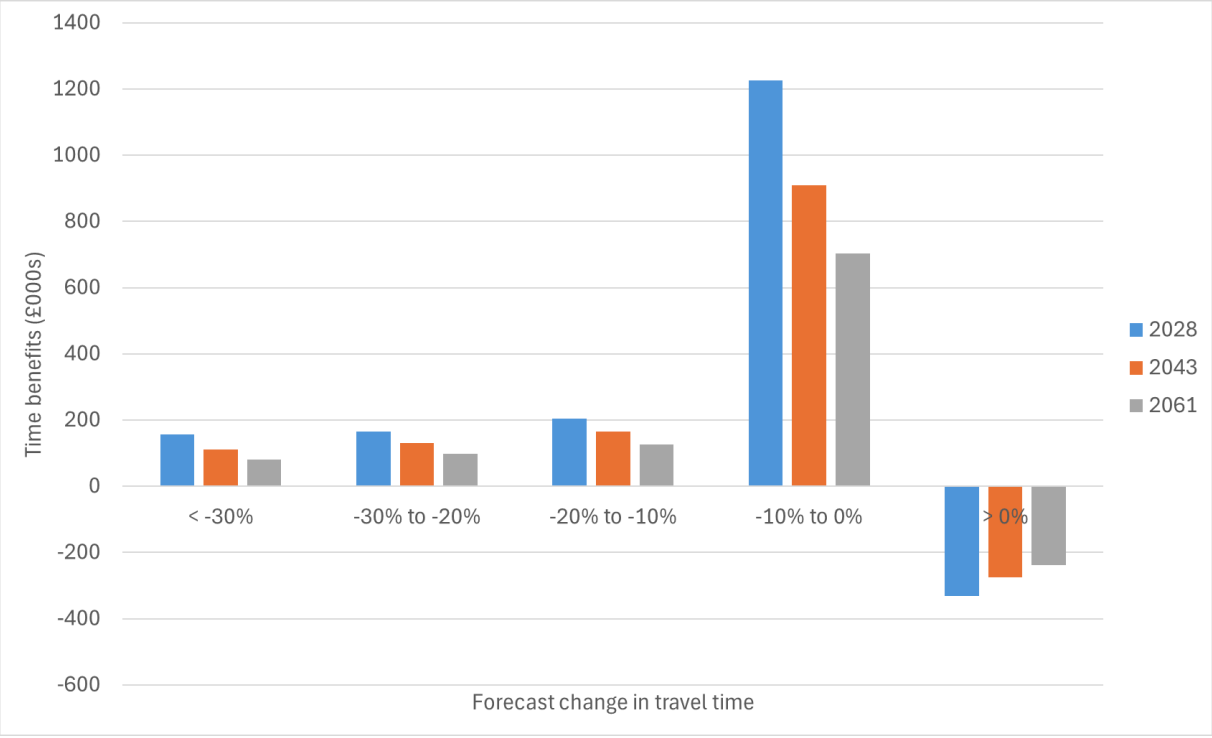
3.9.8 There are also a large number of speeds below than the limit of 12kph, but the vast majority of these have zero trips. The non-zero cells represent around 400 trips in total, with speeds ranging from 3-12 kph, and exclusively very short local movements of less than 2.5km. This number of small trips will not have a material impact on overall benefits.

3.10 Distribution of Benefits

3.10.1 The distribution in benefits by the change in forecast travel times was also reviewed. A plot of the distribution of benefits by change in travel times is shown in **Figure 3-12**.

3.10.2 As can be seen in **Figure 3-12**, most benefits are associated with relatively small changes in travel times. Most travel time benefits (and negative impacts) are associated with a change of minus 10% to plus 10% in forecast travel times. This trend is also constant across all forecast years, showing stability in the model forecasts and the estimate of travel time changes.

Figure 3-12: Distribution of Travel Time Benefits by Forecast Change in Travel Time



Section 4 – Estimation of Benefits – Greenhouse Gases

4.1 Introduction

4.1.1 The DfT's Vehicle Emissions Carbon Tool (VECAT) and the DfT's greenhouse gases TAG workbook have been used to estimate the greenhouse gas impact of the scheme.

4.1.2 Vehicle Emissions Carbon Tool

4.1.3 The methodology outlined in Department for Transport (DfT) Transport Appraisal Guidance (TAG) Unit A3 has been followed in this assessment, alongside the use of VECAT.

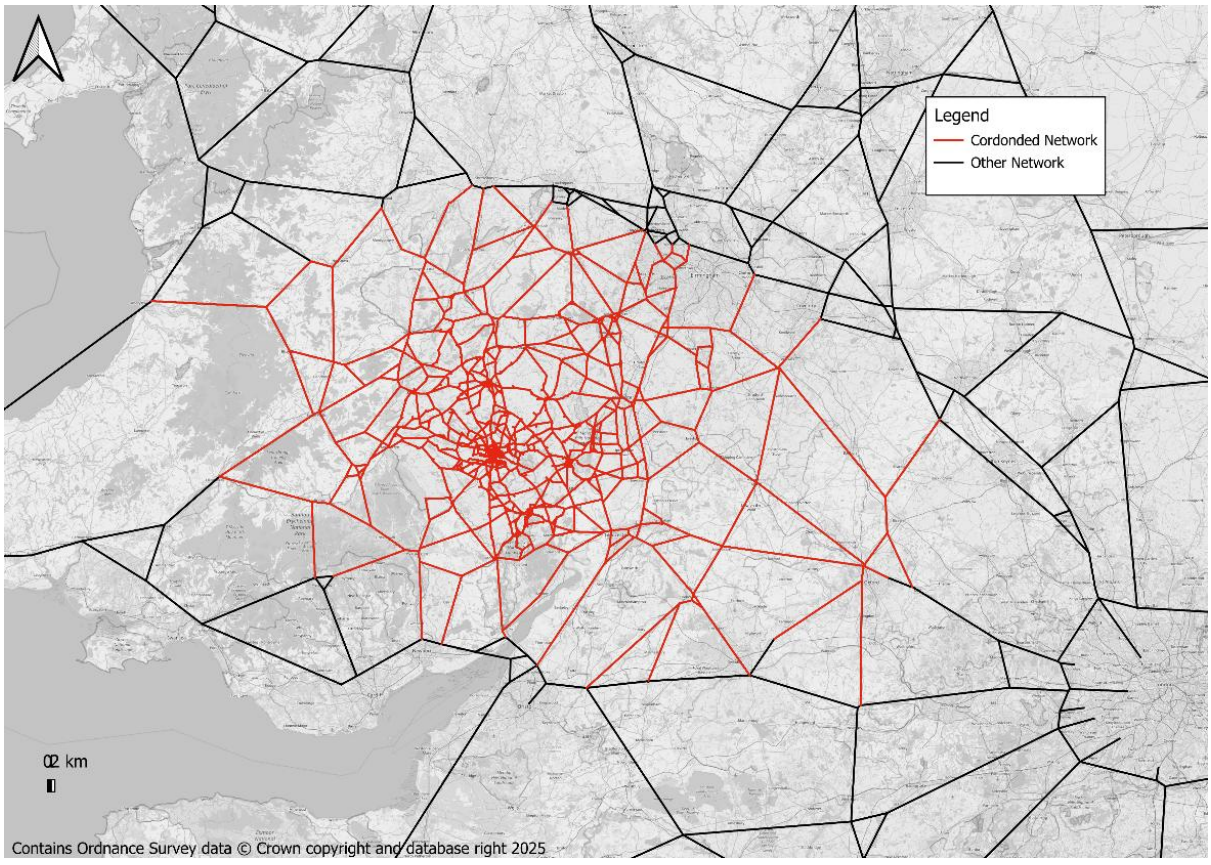
4.1.4 The TAG greenhouse gases workbook is used to assess the monetary value of the impacts of proposed transport schemes on CO_2(e) emissions over a 60-year appraisal period.

4.1.5 To inform the assessment, traffic data were extracted from the HSTM (AM peak hour, interpeak average, PM peak hour, Off-Peak and weekend periods) for Without Scheme and With Scheme forecasts in the forecast years (2028, and 2043)[1].

4.1.6 VECAT v1.01 was used in the estimation of CO_2(e) emissions for time period-flow traffic data for each modelled year, with and without the scheme. The assessment was undertaken using the full traffic dataset provided by the traffic model forecasts.

4.1.7 VECAT provides CO_2(e) output for traded and non-traded emissions. In this instance, traded emissions are those associated with generating the power to charge electric and plug-in hybrid vehicles, and non-traded emissions are those associated with vehicle exhausts. Changes in CO_2(e) emissions from the opening year (2028) to the end of the 60-year appraisal period with and without the scheme in place, for traded and non-traded emissions, were input into the Greenhouse Gases Workbook (May 2025).To ensure that the emissions assessment captures Phase 1's area of influence while excluding areas beyond its likely impact, a defined emissions analysis area was applied. This area, illustrated in **Figure 4-1**, includes the full simulation network and an extended buffer network.

Figure 4-1: VECAT analysis area



[1] The 2061 model year has been excluded from the network-based benefits assessment due to elevated levels of model noise and uncertainty in the forecast outputs. Further investigation is required to ensure robustness.

4.2 TAG workbook

4.2.1 The CO2 equivalent emissions from VECAT have been imported to the DfT's greenhouses gases workbook. The results are summarised as follows in **Table 4-1**, in 2023 prices, discounted to 2023, in market prices.

Table 4-1: Summary of Greenhouse Impacts[2]

	Core	High	Low
NPV of greenhouse gas impact over 60 years	£864,905	£1,107,965	£802,940
Upper estimate of NPV	£1,298,433	£1,663,196	£1,205,693
Lower estimate of NPV	£431,631	£553,030	£400,498
Change in CO_2(e) over 60 years (tonnes)	-4,040	-5,158	-3,618
Of which traded (tonnes)	-65	-73	-77
Change in CO_2(e) in 2028 (tonnes)	-260	-276	-258

Section 5 – Estimation of Benefits – Construction Impacts

5.1 Summary

5.1.1 Construction is due to commence in December 2026, and it is expected that it will be completed in September 2028.

5.1.2 Due to the nature of the scheme, traffic management will be required at A465 Abergavenny Road and A49 Ross Road.

5.1.3 The contractor (John Graham Construction Ltd) will develop the construction traffic management plan during the pre-construction development phase. The contract includes specification documents prepared for the same works in September 2018. These documents were well developed, and it is reasonable to assume that the proposed traffic management requirements will be similar to those specified in the original contract.

5.1.4 Appendix 1/17 of the specification provided details of the traffic safety and management for the scheme.

5.1.5 The traffic management proposals including programme and layout will be submitted by the contractor for approval by Herefordshire Council. The traffic management requirements at the A49 roundabout will also require approval by National Highways.

5.1.6 The A465 roundabout will be constructed offline with the tie-ins to the existing highway network completed under temporary signal operation. Such works are likely to require single way working for four weeks at each tie-in. Thus, the A465 will operate under single way working for a total duration of eight weeks.

5.1.7 The existing A49 roundabout was designed to enable a fourth arm to be added on its western side to accommodate the new southern link road proposals. It is anticipated that these works will be completed by narrowing the carriageway width on the A49 northbound approach and exit to a single lane. However, the overall extent of works and depth of pavement construction will require approval by National Highways. If it requires additional pavement works on the circulatory carriageway further traffic management measures may be required. A temporary site access will be provided on the western side of the roundabout for the duration of the works. This will operate without disrupting regular traffic as the site traffic will effectively use the new fourth arm of the roundabout.

5.1.8 The table below is taken from the 2018 specification (the term 'SCW NSL' stands for single carriageway national speed limit).

Highways, Private Roads and Other Ways Affected by the Works

Location	Predicted 24 Hour Annual Average Daily Traffic AADT	% HGVs	Use of route by Buses / Coaches	Average Speed of Cars MPH	Speed Limit MPH (if proposed, mandatory or advisable)	Type(s) of Traffic Control	Special Facilities (Pedestrian/ Equestrian)	Whether to be kept open or closed
A465 Abergavenny Road	20,623	4.62%	Yes	24.9	SCW NSL	Traffic Signals		To be kept open
A49 Ross Road	22,153	5.73%	Yes	25.3	SCW NSL	Subject to agreement with Highways England		To be kept open

5.1.9 There is a requirement for temporary traffic signals to be operated manually from 07:00-09:00 and 16:00-18:00 (Monday to Friday) to minimise disruption during peak hours. There is also a requirement that traffic shall be free flowing over bank holidays and that the contractor is to liaise with Herefordshire Council and National Highways to identify and accommodate special events.

5.1.10 The A49, A465 and B4349 Clehonger Road are used extensively by public transport. The Contractor will be required to liaise with the various bus companies and provide them with sufficient notice of any restrictions to enable them to make alternative arrangements for routeing their vehicles or relocating stops.

5.1.11 In the absence of a construction management plan at the time of writing, a spreadsheet assessment of the construction impacts on existing highway users have been undertaken.

5.1.12 This analysis has assumed no user delays at the eastern end of the scheme (A49 tie-in) and traffic management measures at the western end of the scheme (A465 tie-in). Following the discussion above, the following assumptions have been made for this western A465 tie-in:

- A465 tie-in is assumed to occur during 2028;
- 24-hour AADT (2-way) of 6420, of which 207 is HGV (*derived from 2028 HSTM 'without scheme' forecast);
- 8-weeks of single-way working;
- average delay per vehicle of 2 minutes across the day;
- 2028 values of time derived from TAG May26 data book;
- journey purpose splits derived from TAG May26 data book; and
- 2028 value of time savings discounted to 2023 using a discount rate of 3.5%.

5.1.13 The result of this analysis is a net cost of £0.187m (£0.029m for HGV, £0.158m for light vehicles), expressed in 2023 prices and values.

Section 6 – Estimation of Benefits – Accidents

6.1 Introduction

6.1.1 CoBA-LT (Cost and Benefit to Accidents – Light Touch) is a cost-benefit analysis package available from the DfT in the form of a spreadsheet. It is used to forecast changes in the numbers of accidents and casualties associated with a change to the highway network, and to monetise these impacts.

6.2 Input Files

6.2.1 CoBA-LT v2.10 which was released in April 2026 has been used, with link and junction combined rates used throughout. The following parameters / dimensions have been used in the CoBA-LT analysis:

- **CoBA-LT Parameter File**
  - 2026 version 2.10, November 2025 TAG data book, has been used without modification
- **CoBA-LT Input File**
  - Current Year: 2026
  - Base Year: 2023
  - Forecast Years: 2028 and 2043[3]
  - Scheme Opening Year: 2028
  - AADT traffic flow data have been calculated using factors derived from long-term count data analysis; the same data were used for the air quality assessment
  - Default national accident rates based on DfT's CoBA-LT 2026 parameter file have been used

6.2.2 The CoBA-LT input / output files are provided as part of a package accompanying this Economic Appraisal Report.

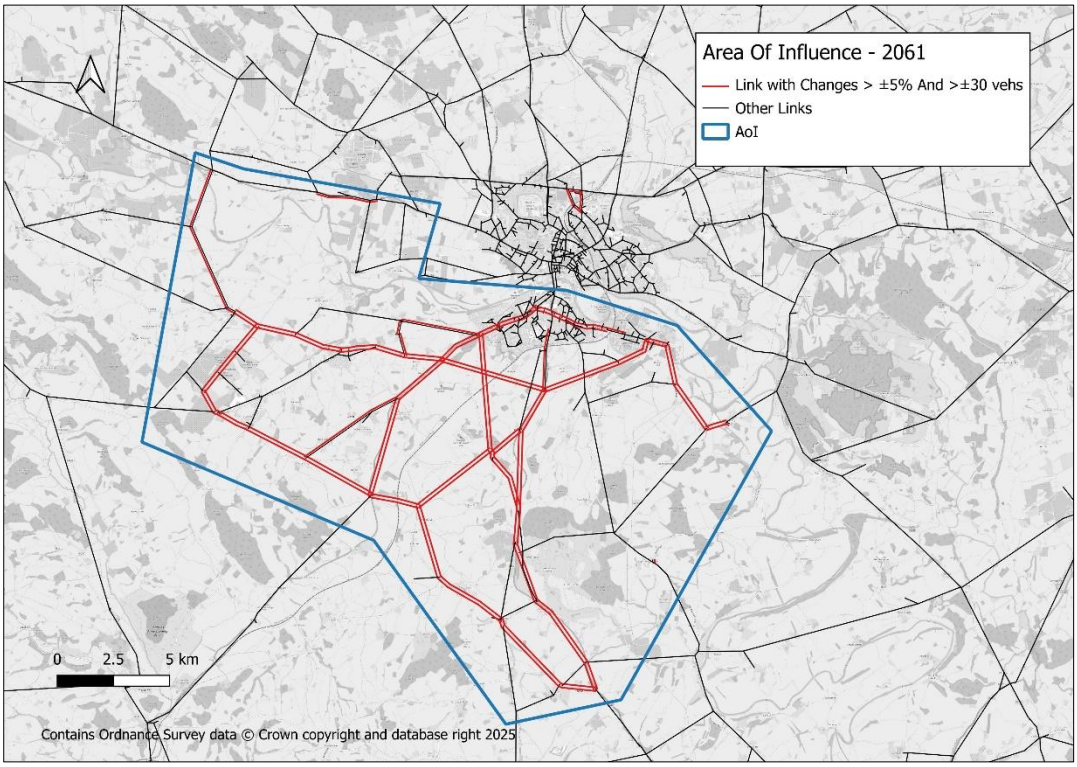
6.3 Accident Rates and Area of Influence used in CoBA-LT Assessment

6.3.1 CoBA-LT contains default national accident rates, defined as the number of Personal Injury Accidents (PIAs) per million vehicle kilometres (mvkm). Varying by road type and speed limit band, these accident rates have been used to calculate the total number of accidents in the absence of any credible local data.

6.3.2 For this scheme, the Area of Influence (AoI) has been defined as shown in **Figure 6-1**. Links experiencing both a ±5% change in flow and an absolute change of ±30 vehicles between the Without Scheme and With Scheme forecasts in any model period in 2061 are highlighted in red. A total of 931 modelled links (with scheme) within the AoI have been included in the COBALT assessment.

[3] The 2061 model year has been excluded from the network-based benefits assessment due to elevated levels of model noise and uncertainty in the forecast outputs. Further investigation is required to ensure robustness.

Figure 6-1: Defined Area of Influence for Accident Appraisal



Map contains Ordnance Survey data © Crown copyright and database right 2025

6.4 Estimated Accident Impact of the Proposed Scheme

6.4.1 Using the inputs specified in Section 6.2, default accident rates, and the AoI discussed in Section 6.3, CoBA-LT was used to appraise the scheme over a 60 year period. Accident rates are therefore constant between scenarios for a given link.

6.4.2 The summary results are provided in Table 6-1, with the monetised values expressed in £000s and in 2023 prices and values.

Table 6-1: Summary of Accident Assessment

Economic Summary *(£000s in 2023 prices and values)*

CAS		Core	High	Low
Economic Summary 2023 values and prices	Accident Costs Without-Scheme (£000s)	247,128	276,167	228,239
	Accident Costs With-Scheme (£000s)	248,137	277,561	229,096
	Benefit of Scheme (£000s)	**-1,009**	**-1,394**	**-857**

Accident Summary

Accidents Summary (PIAs)	Accident Numbers Without-Scheme	2,896	3,278	2,649
	Accident Numbers With-Scheme	2,879	3,261	2,633
	Benefit of Scheme	17.3	16.4	16.4

Casualty Summary

Casualties Numbers Without-Scheme	Fatal	32.8	36.9	30.0
	Serious	411.0	465.0	375.7
	Slight	3460.5	3913.6	3166.8
Casualties Numbers With-Scheme	Fatal	33.9	38.2	31.0
	Serious	412.0	466.6	376.5
	Slight	3449.4	3905.1	3155.7
Benefit of Scheme	Fatal	-1.1	-1.2	-0.9
	Serious	-1.0	-1.6	-0.8
	Slight	11.1	8.5	11.1

6.4.3 Overall, the Core scenario shows a net accident disbenefit of £1 million (2023 prices and values). This disbenefit reflects the significant higher economic weighting applied to fatal, which outweighs the benefits associated with the reduction in slight casualties.

6.4.4 The Core scenario for Phase 1 of the bypass results in a small reduction in total personal injury accidents (PIAs), decreasing from 2,896 accidents in the without-scheme scenario to 2,879 accidents with Phase 1, representing a saving of 17 accidents over the appraisal period.

6.4.5 In terms of casualties, The Core scenario leads to a reduction in slight casualties, with 11 fewer slight casualties compared to the without-scheme scenario. However, there is a marginal increase in fatal and serious casualties, with increases of 1.1 fatal and 1.0 serious casualties. The reduction in slight casualties is likely due to traffic being diverted away from lower-speed roads within Hereford.

6.4.6 Compared with the Core scenario, the High CAS scenario results in a higher number of fatal casualties due to higher traffic growth assumptions and therefore a higher net accident disbenefit of £1.4 million. Conversely, the Low CAS scenario results in fewer fatal casualties and therefore a lower net accident disbenefit of £0.9 million.

6.4.7 It should be noted that these results are a technical outcome of the methodology used within CoBA-LT, which calculates the product of vehicle-kilometres travelled and standard national accident rates, rates which increase in severity above 40mph. Therefore, by adding a new stretch of 3km road with the national speed limit, which will also draw in traffic into the area of influence as a result of the scheme, the modest increase in more serious casualties as a result of the scheme is not unexpected.

Section 7 – Estimation of Benefits – Journey Time Reliability

7.1 Introduction

7.1.1 The change in journey time reliability has been estimated based on the guidance contained within TAG Unit A1.3, Section 6.3 for urban roads. This approach considers the ratio of the assigned time within the highway model to the free-flow time as a measure of the standard deviation in journey times and monetises this using the same assumptions as adopted within the TUBA assessment of the forecast scheme impacts (see Section 3).

7.1.2 For reliability assessment purposes affected roads are classed as SRN, Urban or Other**.**

7.1.3 For SRN roads the MYRIAD program would be used and Unit A1.3 details the calculations to be used for urban roads.

7.1.4 In practice the scheme would be classified as an 'Other' road but Unit A1.3 does not provide a methodology for quantifying 'Other' roads, it only has a qualitative process based on link stress, the relevant section restated as follows:

7.1.5 Since the scheme serves as an alternative route to urban roads, the urban road methodology has been applied for the assessment, but only within the urban area south of Hereford. The Area of Influence (AoI) has been defined consistently with that used for the CoBA-LT assessment, as shown in Figure 6-1 in 6.3.2

7.2 Methodology

7.2.1 Using a cordon model defined by the AoI shown in **Figure 6-1**, the assigned time and distance, and free-flow time, have been skimmed from the assignments, for each time-period. The following expression (defined in TAG A1.3, §C.3.3) has been applied to each time-period for the Core Scenario and 'With Scheme' Scenario in the 2028, 2043 and 2061 forecast years:

$$\sigma = 0.4 * 0.16 * \left(\frac{Time_{Assigned}}{Time_{FreeFlow}}\right)^{1.02} * Dist^{-0.39} * Time_{Assigned}$$

7.2.2 The change in the forecast journey time variability (σ) between the Without Scheme and With Scheme forecasts have then been used in a standard 'rule-of-a-half' calculation using the assignment demand to estimate the journey time benefits. This has used the same periods and demand/cost combinations as defined for the Core Scenario TUBA assessment.

7.2.3 To monetise these benefits, the results of the above calculation have been converted from vehicles (the units of the highway assignment model) to people (the units of the appraisal) using the standard vehicle occupancies as defined within TUBA v1.10.01. These have then been annualised based on the factors defined in **Table 3-3**:

7.2.4 These savings have been applied to the model forecast years. Linear interpolation has been applied to the years in-between the model forecast years to estimate benefits for these in-between years. As within TUBA, the benefits are assumed to be constant for all years after 2061 within the 60-year appraisal period. Based on this and using the values of time adopted within the TUBA assessment of the scheme, the journey time reliability benefits have been converted to a monetary value.

7.2.5 Within the TUBA assessment, a value of time which varies by trip-length has been adopted for car business trips, but this approach cannot be applied within the journey time reliability analysis, as the cordon model does not include information on the total trip-length for business trips. Therefore, the average business value of time, as defined within TUBA v1.10.01, has been applied for this trip purpose.

7.2.6 These monetary values have then been discounted to 2023 using the standard assumptions included within TAG.

7.3 Summary of Results

7.3.1 Applying the methodology outlined above to the Core Scenario and Common Analytical Scenarios (CAS) produces the reliability benefits given in **Table 7-1**. This assessment forecasts that the journey time reliability benefits are approximately £1.7m over 60 years for the Core Scenario.

7.3.2 The High CAS scenario forecasts higher journey time reliability benefits of approximately £2 million over the 60-year appraisal period, reflecting higher traffic growth. In contrast, the Low CAS scenario results in lower benefits of approximately £1.4 million over the same period.

Table 7-1: Summary of Reliability Benefits by User Class[4]

User Class	Core	Low	High
HGV	£27,157	£23,586	£31,661
LGV	£178,284	£130,843	£256,429
Employers' Business	£175,290	£154,329	£211,608
Car Other	£861,662	£699,620	£950,084
Car Commute	£472,083	£408,662	£628,611
Total	***£1,714,476***	***£1,417,041***	***£2,078,393***

[4] The 2061 model year has been excluded from the network-based benefits assessment due to elevated levels of model noise and uncertainty in the forecast outputs. Further investigation is required to ensure robustness.

Section 8 – Local Noise Assessment

8.1 Summary

8.1.1 Major (>=5 dB) increases in road traffic noise are expected at receptors in close proximity to the scheme; this impacted area is however sparsely populated.

8.1.2 Despite being close to the scheme, receptors along Haywood Lane are expected to experience a minor decrease in road traffic noise. This is due to fewer vehicles using this road with the scheme constructed.

8.1.3 Major decreases in road traffic noise are expected along the closed section of the B4349. Reductions in traffic noise are also expected along Belmont Road, Walnut Tree Avenue and Holme Lacy Road. However, the scale of these reductions falls below the threshold to be included in the economic analysis of this impact.

8.1.4 Due to the introduction of the scheme minor increases in road traffic noise are expected along the B4349 between the scheme and Clehonger. These changes are just above the threshold to be included within the economic analysis of this impact. The minor noise increase continues from Clehonger along the B4352 into Madley. From Madley minor increases in road traffic noise are expected along Bage Pitch Road up to the A438. This is due to rerouting of traffic which would have otherwise used an existing route prior to scheme opening.

8.1.5 These existing routes from where traffic has been diverted are expected to experience minor decreases in road traffic noise. From east to west these are as follows:

- roads through Callow and Portway off Haywood Lane;
- the road connecting Haywood Lane to the B4348;
- the B4348 from this junction to St Bartholomew's Church, Thruxton;
- B4348 between Blackthorn and the junction with the B4349; and
- Stone Street Between Blackthorn and the B4352.

8.1.6 The following numbers of households are forecast to experience material changes in noise with the scheme in place with the scheme delivered, in the design year of 2043.

- 290 households experience increased daytime noise;
- 226 household experience reduced daytime noise;
- 74 households experience increased nighttime noise; and
- 129 household experience reduced nighttime noise.

8.1.7 The monetised impact of the change in traffic noise was calculated using the relevant TAG workbook (based on guidance produced by Defra on assessing the impacts of transport related noise from different sources). This resulted in a net benefit of £0.960m in discounted 2023 prices and values.

Section 9 – Air Quality Assessment

9.1 Summary

9.1.1 The air quality study area is located within Hereford. Herefordshire Council has declared two air quality management areas (AQMAs) for exceedances of the NO2 annual mean objective, one of which is in the city of Hereford (as described in the Strategic Dimension). However, the scheme is located outside these, located approximately 2.5 km from the closest AQMA (Hereford AQMA). The nearest monitoring site to the scheme reported an annual mean NO2 concentration of 20.3 µg/m3 in 2024. This is diffusion tube site 79, which is located approximately 2.3 km to the north of the scheme, at a roadside location on Belmont Road in Hereford. The scheme is located in a rural area to the south of Hereford, meaning that monitored concentrations are therefore likely to be lower than those reported at the nearest monitoring site. It is also worth noting that Herefordshire council are in the process of revoking the AQMA within Hereford as the NO2 concentration levels have been below the threshold values by 10% for the last five years.

9.1.2 With the scheme operational, both decreases and increases in pollutant concentrations are anticipated, due to changes in traffic flows and road layouts associated with the scheme, which could lead to relative improvements or deteriorations in air quality respectively.

9.1.3 The largest increases in forecast traffic flows are on roads located in close proximity to the scheme. These include the southern section of the A465, on approach and leaving the proposed roundabout within the scheme, as well as the B4349 and the Clehonger Link, located between the A49/B4399 roundabout and the proposed roundabout on the A465. There are properties located within 20 metres and 50 metres of these roads, which could experience a deterioration in local air quality. However, when considering the magnitude of the change in traffic flow, the existing air quality, the impacts are not likely to be significant.

9.1.4 The largest decreases in traffic flows were seen on a rural road off the A49 and along the northern section of the A465, as it travels through Belmont towards Hereford. There are properties located within 20 metres of these roads, which could experience an improvement in local air quality. However, when considering the magnitude of the change in traffic flow, the existing air quality, the impacts are not likely to be significant.

9.1.5 In addition, decreases in traffic flow were also predicted in the more populated areas to the south of Hereford and therefore improvements in air quality at residential properties would also be expected in these areas. However, the magnitude of change in the number of vehicles on the roads was below the criteria to be included in the quantitative air quality appraisal. For example, a decrease of approximately 700 vehicles per day is anticipated on Walnut Tree Avenue and a decrease of approximately 600 vehicles per day is anticipated on Holme Lacy Road.

9.1.6 Overall, the air quality impacts are considered to be not material, with a very slight overall monetised disbenefit of £0.08m in discounted 2023 prices and values.

Section 10 – Wider Impacts Assessment

10.1 Introduction

10.1.1 Wider economic impacts arise because market failures in secondary (non-transport) markets, such as the product, labour, and land markets, mean that the full welfare impact of a transport investment may not be reflected in the transport market. The underlying assumption is that improved connectivity and accessibility between areas will effectively reduce the 'economic distance' between enterprises, increasing business productivity and competition.

10.1.2 The wider economic impacts are described in TAG Unit A2 and can be divided into three distinct groups on the basis of land-use change: fixed land-use, implicit land-use change; and explicit land-use change. As none of the housing or employment developments assumed in the forecasting are specifically dependent upon the scheme (although the scheme will be one of the enablers for this growth), wider economic impacts were assessed based on the assumption of fixed land-use and calculated using the DfT's Wider Impacts in Transport Analysis (WITA) software (v2.3).

10.1.3 In assessing the potential scale of wider economic impacts, it is useful to determine the extent to which the scheme is located within or sufficiently close to a 'Functional Urban Area' (FUR), and hence to check that the range of possible wider economic impacts is likely to materialise. FURs contain a high density of businesses that are able to benefit from clustering, through achieving agglomeration (productivity) benefits such as learning, networking and coordination. The scheme is located on the edge of the Hereford FUR, but also has MRN and SRN connections to the nearby Leominster and Ledbury FURs to the north and southeast respectively. Agglomeration effects decay over distance. Empirical evidence suggests that for agglomeration to occur the relative travel times must be within 45 minutes; peak morning journey times to Worcester are generally more than this, although interpeak and evening peak journey times from those locations may be feasible within 45 minutes.

10.2 Agglomeration

10.2.1 WITA was used to assess static clustering, the impact on productivity of the decrease in generalised travel costs that in effect brings firms and employees closer together and assumes no change in land-use. It was not considered justifiable to assess productivity impacts on the basis of land-use change brought about by the scheme (dynamic clustering), given there are a number of drivers and factors behind forecast increases in employment and dwellings, not all of which can be attributed to the scheme.

10.3 Labour supply impacts

10.3.1 WITA was used to assess labour supply impacts. Transport costs are likely to affect the overall costs and benefits to an individual from working. In deciding whether to work, an individual will weigh travel costs against the wage rate of the job travelled to. A change in transport costs is therefore likely to affect the incentive to work and hence the overall level of labour supplied in the economy.

10.3.2 As the scheme reduces the generalised cost of travel, mainly through improved travel times rather than a reduction in vehicle operating costs, there will be a higher level of labour supplied in the economy due to its implementation. It should be noted that only the tax revenues from changes in the labour supply are counted as additional benefits.

10.4 Increased output in imperfectly competitive markets

10.4.1 As detailed in TAG, the impact of increases or decreases in output in imperfectly competitive markets is calculated as a factor of the total business user benefits derived from TUBA. The estimate of the factor of benefits to take is specified in TAG Unit A2.2 Paragraph 4.3.1 as 13.4%. This can also be applied to journey time reliability assessments, although this was not undertaken in this case, and would only have had a very small positive benefit.

10.5 Results

10.5.1 **Table 10-1** shows the forecast benefits arising from agglomeration, by industrial sector. It shows there are positive agglomeration impacts realised from the scheme, providing around £0.73m of benefits across the 60-year appraisal period. This is due to the reductions in journey times and delays (for both personal and business trips) as the scheme improves the connectivity and accessibility between suppliers and firms. Most of the benefits are associated with Herefordshire (£0.47m), the district in which there is the largest congestion relief and increase in accessibility.

Table 10-1: Benefits arising from agglomeration impacts, 2023 prices and values

Industrial sector	Value of benefit
Manufacturing	£13,384
Construction	£98,425
Consumer services	£242,701
Producer services	£372,055
Total	**£726,565**

10.5.2 As the scheme is forecast to reduce the cost of travel, through improved travel times and reliability, there will be a higher level of labour supplied in the economy due to its implementation. As shown in Table 10-2, there is expected to be a marginal tax revenue increase of more than £0.31m.

Table 10-2: Benefits arising from labour supply Impacts, 2023 prices and values

Economic impact type	Value of benefit
Welfare Benefit from Labour Supply Impact	£781,991
Tax Revenues from the Labour Market Impact of Additional Workers	£312,796
Total	**£1,094,787**

10.5.3 The impact of increases or decreases in output in imperfectly competitive markets, calculated as an uplift factor of the total business (including freight) user benefits derived from the conventional transport user benefit appraisal, is estimated to be £2.06m (Table 10-3).

Table 10-3: Benefits arising from increased output in imperfectly competitive markets, 2023 prices and values

Economic impact type	Value of benefit
Output Change in Imperfectly Competitive Markets	£2,057,168

10.5.4 The overall wider economic impacts, as summarised in Table 10-4, are estimated to be £3.88m. Of these, just over half (53%) are forecast to be realised through Change in Imperfectly Competitive Markets, with the scheme improving accessibility between firms and their suppliers, markets and workers, with much of this benefit accruing in Herefordshire.

Table 10-4: Summary of wider economic impacts, 2023 prices and values

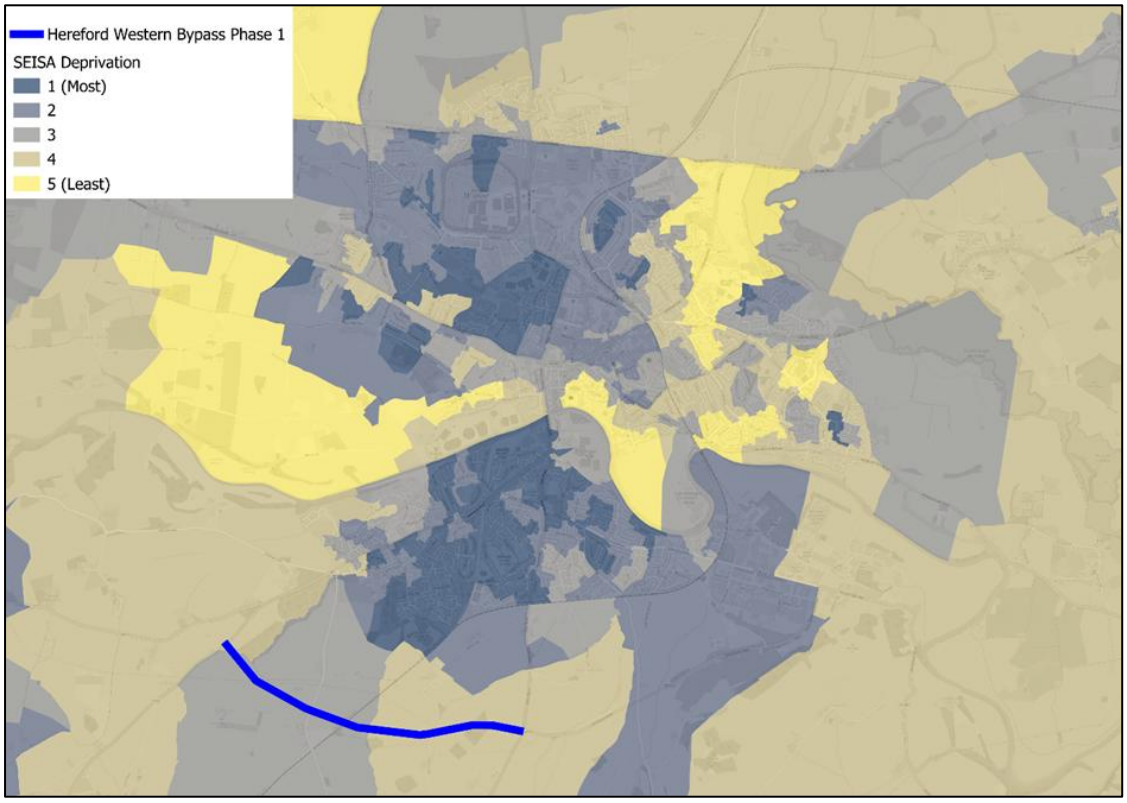
Economic impact type	Value of benefit
Agglomeration	£726,565
Labour market impacts	£1,094,787
Imperfectively competitive markets	£2,057,168
Total	**£3,878,520**

Section 11 – Assessment of Distributional Impacts

11.1 Introduction

11.1.1 A distributional impacts assessment has been undertaken for the indicators described in the DfT's TAG Unit on Distributional Impact Appraisal (Unit A4.2). The assessment presented here includes reference to the Higher Education Statistics Agency Socioeconomic Index for Small Areas (SEISA), derived from 2021 Census data, and from which the population was categorised nationally into five equal groups (see **Figure 11-1**), from Group 1 (the 20% most deprived) through to Group 5 (the 20% least deprived).

Figure 11-1: SEISA Income Quintiles in the Area of Impact (Hereford)



11.2 Transport User Benefits

11.2.1 The user benefits assessment used TUBA outputs filtered to include only trips with a home location inside the AoI (defined for the distribution analysis as Herefordshire). Non-business trips ('commuting' and 'other' purposes) were aggregated by 2025 English Indices of Deprivation income quintile representing income level at LSOA scale.

11.2.2 The assessment revealed that user benefits are unevenly distributed across income groups, with significant benefits accruing to the middle-income group.

11.2.3 The middle-income group (Group 3) (34% of the population) receives 53% of the benefits.

11.2.4 The least deprived income group (Group 5) (8% of the population) receives 1% of the benefits.

11.2.5 The other income groups receive benefits in-line with their proportion of population.

11.2.6 This distribution represents a neutral outcome from an equity perspective, with disadvantaged groups receiving a proportionate share of the benefits. These groups are concentrated in South Wye. While they may not benefit from personal transport user benefits, due to lower car ownership and a higher propensity to use active modes within the city, they are not adversely affected by the change in travel pattern that produces the user benefits for other groups as there is a reduction in traffic in South Wye with the scheme.

11.3 Noise

11.3.1 Traffic noise impacts were assessed for 2,314 affected residential buildings within 600m of the scheme and affected links. These are all in the rural area outside the city. Both daytime (LAeq,16h) and night-time (LAeq,8h) traffic noise levels were evaluated. The analysis found that:

- Most people in the affected area experience no change in noise levels.
- Of those experiencing change, more experience an increase than a decrease; the scheme has an overall negative noise impact in the distributional impact analysis.
- In the daytime, income Group 2 is adversely impacted to the greatest extent due to an increase in traffic near Clehonger village on the B4349. Income Group 3 is positively impacted to the greatest extent due to a preponderance of receptors on indirect rural east-west routes relieved of traffic by the scheme. Groups 1 and 4 have proportionate adverse impacts and Group 5 is not present.
- Impacts on both children and older people are generally in-line with their proportion of the affected population.

11.3.2 Non-residential sensitive locations (schools, health centres, community centres, religious sites) show negligible noise impacts (less than 3dB change), resulting in a neutral assessment.

11.4 Air Quality

11.4.1 Air quality impacts were assessed for 2,437 affected residential receptors within 200m of affected links, analysing both PM2.5 and NO2 concentrations for the scheme design year. The analysis found that:

- Most people in the affected area experience no change in air quality.
- Overall, there is a beneficial impact, indicating decreased PM2.5 and NO2 pollution with the scheme.
- Groups 1 and 3 benefit most due to their locations concentrated along Belmont Road and rural east-west routes where traffic is reduced by the scheme.
- Group 2 has slight adverse PM2.5 and slight beneficial NO2 impacts. Adverse PM2.5 impacts are concentrated close to Clehonger village.
- Group 5 has large adverse impacts due to being concentrated on the A49 near Much Birch which shows a small increase in traffic with the scheme.
- The impact on children is positive, and broadly proportional to population.

11.4.2 Non-residential sensitive receptors (schools, nurseries, care homes, GP surgeries) showed imperceptible changes in NO2 and imperceptible or very small PM2.5 changes.

11.5 Accidents

11.5.1 The accident assessment focused on identifying locations where there are clusters of accidents and casualties and which of the vulnerable groups have atypical casualty rates in the AoI.

11.5.2 Locations identified as having clusters of casualties in the STATS19 data are almost all junctions on the A49 and A465.

11.5.3 In the rural areas, casualty proportions for the vulnerable groups are like the county as a whole. In the urban areas of South Wye, there are higher proportions of Children and Cyclists and lower proportions of Older people than the county as a whole. South Wye has a younger population than the county as a whole and a greater propensity for active travel as journeys are shorter within the city.

11.5.4 The scheme reduces traffic at many of the affected junctions which are where indirect east-west routes currently used to go between the A49 and A465 join these roads. Notably this includes the B4348/A465 junction at Lock's Garage. Other affected junctions are in South Wye. The scheme generally reduces traffic in South Wye where the Cyclist and Child casualty proportions are high.

11.5.5 Impacts are moderate beneficial for Cyclists and Children and slight beneficial for Older people, Pedestrians, Motorcyclists and Young Male Drivers.

11.6 Security

11.6.1 The Scheme is designed to maintain pedestrian access where road layout changes are proposed.

11.6.2 The possible impact on security indicators is assessed as neutral, and therefore no detailed distributional impacts assessment of security was undertaken.

11.7 Accessibility

11.7.1 The Scheme maintains pedestrian access where road layout changes are proposed. There are no proposals to relocate services due to the Scheme which would change access for public transport users.

11.7.2 The possible impact on public transport accessibility is assessed as neutral, and therefore an assessment of the distributional impacts of accessibility was not undertaken.

11.8 Severance

11.8.1 Severance assessment focused on links meeting TAG criteria for significant flow changes with flow per hour greater than the equivalent of 150 passenger car units, within areas likely to generate walking trips to amenities (within 800m) or bus stops (within 400m).

11.8.2 Routes meeting these criteria are either villages with some amenities or the Belmont Road-Walnut Tree Avenue-Holme Lacy Road-Straight Mile corridor. On the latter corridor the scheme reduces traffic and the impact is consistently beneficial. The affected population is mostly located in South Wye and includes significant numbers of people with no car availability, young people and disabled people. Impacts are assessed are slight beneficial for Older people and moderate beneficial for No-Car, Young and Disabled groups.

11.9 Personal Affordability

11.9.1 Personal affordability impacts were assessed focusing on changes in vehicle operating costs due to the scheme. The scheme is likely to increase journey distance for east-west traffic using the scheme and produce adverse impacts (although it is worth noting that any increase in operating costs is more than offset by the benefits from reduced journey times).

11.9.2 In the wider area there are slight positive impacts for the A49 corridor.

11.9.3 The overall impact is adverse with the largest impact on the middle income group (Group 3) and the least impact on the lowest (Group 1)and highest (Group 5) income groups.

11.10 Summary

11.10.1 The Distributional Impact Assessment is summarised for all indicators in **Table 11-1**. The scheme has mostly positive distributional impacts, benefitting the lowest 4 income groups and the younger, more deprived population in South Wye. Adverse impacts for personal affordability are to be expected for a scheme that generates longer faster journeys. The noise modelling did not cover the city where traffic is expected to reduce, and some benefit could be expected.

Table 11-1: Distributional Impact Appraisal Matrix

	Distributional impact of income deprivation					**Are the impacts distributed evenly?**	**Key impacts - Qualitative statements (example below)**
	0-20%	20-40%	40-60%	60-80%	80-100%		
User benefits	✓✓·	✓✓·	✓✓✓·	✓✓·	✓·	No	Positive benefits are felt by all income groups due to a reduction in journey time with the scheme in place. Benefits favour the middle income group and the highest income group has a disproportionately small share of benefits.
Noise	✗✗·	✗✗✗·	✓✓✓·	✗✗·	neutral	No	Noise impacts favour those in the middle income group. The affected areas for that group are the indirect west-east routes relieved by the scheme. The highest income group is not

	Distributional impact of income deprivation					Are the impacts distributed evenly?	Key impacts - Qualitative statements (example below)
	0-20%	20-40%	40-60%	60-80%	80-100%		
							represented. All other groups experience noise disbenefits. 80% of the assessed population have no change in daytime noise.
Air quality $PM_{2.5}$	✓✓✓·	✗·	✓✓✓·	✓✓·	✗✗·	No	PM2.5 impacts favour the most-deprived and middle income group. Due to their location in South Wye The second-most and least deprived groups experiences PM2.5 disbenefits. 80% of the assessed population have no change in PM2.5 concentration.
Air quality NO_2	✓✓✓·	✓·	✓✓✓·	✓✓·	✗✗✗·	No	NO2 impacts favour the most-deprived and middle income group. Due to their location in South Wye The least deprived group experiences NO2 disbenefits. 85% of the assessed population have no change in NO2 concentration.
Affordability	✗··	✗✗··	✗✗✗··	✗✗··	✗··	No	Affordability disbenefits are felt by all income groups due to longer journeys with the scheme in place. The most- and least-deprived income quintiles have a smaller share of disbenefits and the middle-income group has a larger share of disbenefits compared with population.
Accessibility							Not assessed.

Section 12 – TEE, Public Accounts and AMCB Tables

12.1 Introduction

12.1.1 Using the monetised benefits described in the preceding sections of this Economic Appraisal Report, this section draws these together to produce the Transport Economic Efficiency (TEE) and Analysis of Monetised Costs and Benefits (AMCB) tables defined within TAG.

12.1.2 All values in these tables are in £000s.

12.1.3 Two 'Analysis of Monetised Costs and Benefits' (AMCB) tables are provided:

- the first (**Table 12-2**) including third party contributions (none) and the full scheme costs, but excluding adjusted benefits (journey time reliability and wider impacts);
- the second (**Table 12-3**) including third party contributions (none), the full scheme costs and adjusted benefits.

Table 12-1: Transport Economic Efficiency (TEE) Table, 2023 Prices and Values, £000s

Non-business: Commuting	**ALL MODES**		**ROAD**
User benefits	**TOTAL**		**Private Cars and LGVs**
Travel time	£11,961		£11,961
Vehicle operating costs	£47		£47
User charges	£0		£0
During Construction & Maintenance	£0		£0
NET NON-BUSINESS BENEFITS: COMMUTING	£12,008	*(1a)*	£12,008

Non-business: Other	**ALL MODES**		**ROAD**
User benefits	**TOTAL**		**Private Cars and LGVs**
Travel time	£22,764		£22,764
Vehicle operating costs	£15,734		£15,734
User charges	£0		£0
During Construction & Maintenance	£0		£0
NET NON-BUSINESS BENEFITS: OTHER	£38,498	*(1b)*	£38,498

Business				
User benefits			**Goods Vehicles**	**Business Cars & LGVs**
Travel time	£16,949		£9,571	£7,378
Vehicle operating costs	-£1,719		-£1,175	-£544
User charges	£0		£0	£0
During Construction & Maintenance	-£187		-£29	-£158
Subtotal	£15,043	*(2)*	£8,367	£6,676
Private sector provider impacts				
Revenue	£0			
Operating costs	£0			
Investment costs	£0			
Grant/subsidy	£0			
Subtotal	£0	*(3)*		
Other business impacts				
Developer contributions	£0	(4)		£0
NET BUSINESS IMPACT	£15,043	*(5) = (2) + (3) + (4)*		

TOTAL		
Present Value of Transport Economic Efficiency Benefits (TEE)	**£65,549**	*(6) = (1a) + (1b) + (5)*

Notes: Benefits appear as positive numbers, while costs appear as negative numbers.

All entries are discounted present values, in 2023 prices and values.

Table 12-2: Analysis of Monetised Costs and Benefits (AMCB), 2023 Prices and Values, £000s

Analysis of Monetised Costs and Benefits

Noise	£960	*(12)*
Local Air Quality	-£80	*(13)*
Greenhouse Gases	£865	*(14)*
Journey Quality	-	*(15)*
Physical Activity	-	*(16)*
Accidents	-£1,009	*(17)*
Economic Efficiency: Consumer Users (Commuting)	£12,008	*(1a)*
Economic Efficiency: Consumer Users (Other)	£38,498	*(1b)*
Economic Efficiency: Business Users and Providers	£15,043	*(5)*
Wider Public Finances (Indirect Taxation Revenues)	-£7,490	*- (11) - sign changed from PA table, as PA table represents costs, not benefits*
Present Value of Benefits (see notes) (PVB)	£58,795	*(PVB) = (12) + (13) + (14) + (15) + (16) + (17) + (1a) + (1b) + (5) - (11)*
Broad Transport Budget	£39,558	*(10)*
Present Value of Costs (see notes) (PVC)	£39,558	*(PVC) = (10)*
OVERALL IMPACTS		
Net Present Value (NPV)	**£19,237**	NPV=PVB-PVC
Benefit to Cost Ratio (BCR)	**1.5**	BCR=PVB/PVC

Note: This table includes costs and benefits which are regularly or occasionally presented in monetised form in transport appraisals, together with some where monetisation is in prospect. There may also be other significant costs and benefits, some of which cannot be presented in monetised form. Where this is the case, the analysis presented above does NOT provide a good measure of value for money and should not be used as the sole basis for decisions.

Table 12-3: Analysis of Monetised Costs and Benefits (Adjusted), 2023 Prices and Values, £000s

Analysis of Monetised Costs and Benefits including wider economic impacts and journey time reliability

Noise	£960	*(12)*
Local Air Quality	-£80	*(13)*
Greenhouse Gases	£865	*(14)*
Journey Quality	-	*(15)*
Physical Activity	-	*(16)*
Accidents	-£1,009	*(17)*
Economic Efficiency: Consumer Users (Commuting)	£12,008	*(1a)*
Economic Efficiency: Consumer Users (Other)	£38,498	*(1b)*
Economic Efficiency: Business Users and Providers	£15,043	*(5)*
Wider Public Finances (Indirect Taxation Revenues)	-£7,490	*- (11) - sign changed from PA table, as PA table represents costs, not benefits*
Wider Impacts	£3,879	
Journey Time Reliability	£1,714	
Present Value of Benefits (see notes) (PVB)	£64,388	*(PVB) = (12) + (13) + (14) + (15) + (16) + (17) + (1a) + (1b) + (5) - (11)*
Broad Transport Budget	£39,558	*(10)*
Present Value of Costs (see notes) (PVC)	£39,558	*(PVC) = (10)*
OVERALL IMPACTS		
Net Present Value (NPV)	**£24,829**	NPV=PVB-PVC
Benefit to Cost Ratio (BCR)	**1.6**	BCR=PVB/PVC

Note: This table includes costs and benefits which are regularly or occasionally presented in monetised form in transport appraisals, together with some where monetisation is in prospect. There may also be other significant costs and benefits, some of which cannot be presented in monetised form. Where this is the case, the analysis presented above does NOT provide a good measure of value for money and should not be used as the sole basis for decisions.

Appendix G – Quantitative Risk Assessment

Hereford Western Bypass

Phase One Quantitative Risk Assessment Report

Herefordshire Council

June 2026

Delivering a better world

Quality information

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1. Introduction

A Quantitative Risk Assessment (QRA) was undertaken for Phase One of the Hereford Bypass project. This technical report briefly outlines the risk identification (risk register) and the QRA processes and presents the QRA outputs as run on the 44 active risks within the register, and a listing of the top five risks at the time of this revision.

The main purpose of the QRA is to support the scheme costing by predicting the level of risk contribution, having a defined level of confidence, to cover the construction of the scheme. QRA allows for uncertainty in unplanned additional cost items that cannot be included in the project costs.

The QRA process involves four steps. Step 1 is identification of all risks affecting the project through risk workshops and risk reviews resulting in a risk register (the risk register will be continually reviewed and updated). Step 2 is analysis of the various risks by defining their distributions in terms of probabilities, impacts and knock-on effects. This information is also gathered through abovementioned workshops and other interactions. Step 3 is undertaking the risk modelling using Monte Carlo simulation (in this project @Risk® software was used). Step 4 is analysing the results against required contingency needs for the project.

The risk model has been constructed by AECOM using Microsoft Excel and @Risk® software packages. The model used the Monte-Carlo simulation theory by replicating 10,000 iterations of likely project risk scenarios. Confidence levels relating to the cost of the scheme are obtained from the distribution of the averaged results produced by the simulations.

2. Risk Model Inputs

Baseline Capital Expenditure

The current estimated capital cost of the scheme has been considered in determining the extent of risks used in the QRA analysis.

Risk Identification and Categorisation

A risk register is developed through risk workshops. This revision of the Risk Register and this iteration of the QRA is referred to as “Hereford Bypass Phase One Risk Register QRA v1”. The current version of the Risk Register is included in Appendix 1.

The risks that are input into the QRA are taken directly from the risk register for the scheme. Each risk is assessed for its Financial Risk and Delay risk.

Risk Quantification

Individual risks were defined in terms of their distributions, likelihood/probabilities, impacts and knock-on effects, etc., through a workshop which took place on the 1st of May 2026 and was attended by Herefordshire Council Officers, Graham Construction Team Members as well as AECOM Project Team members.

For each risk, the key inputs recorded to use in the QRA model are Cost Impact Estimate (Minimum, Maximum, and Likely), Delay Impact Estimate (Minimum, Maximum, and Likely), and Likelihood (in broad categories of Almost Certain, Likely, Possible, Unlikely, or Rare).

These values are then used in the model to determine a Mean Outcome and a Risk Exposure for each risk and for each iteration. The Monte Carlo simulation ran 10,000 iterations to achieve the results.

3. Risk Model Outputs

Risk Value

The table below shows the Grand Total Risk value (Financial + Delay) for the project; the @Risk output is shown in Appendix 1. Both 50th Percentile risk value and 80th Percentile risk value (referred to as P(50) and P(80) respectively) are shown in the table below.

Table 1: Grand Total Risk Value

	P(20) (000's)	P(50) (000's)	P(80) (000's)	P(mean) (000's)
Grand Total Risk (Financial + Delay)	£1,915	£2,962	£4,417	£3,263

Highest Ranked Risks

The top 5 risks (Grand Total Risk: Financial + Delay) identified by the sensitivity testing are listed below.

Table 2: Top 5 risks associated with the scheme

Rank	Risk Ref	Description
1	0.14	Delay caused by judicial review against a planning decision for the supplementary planning application within 6 weeks from the date of the decision
2	1.1	The 2018 Bill of Quantity/Activity Schedule does not match the 2018 Scope and/or quantities calculated in PCSA stage and/or measured quantities differ from those developed in PCSA stage
3	1.2	Pricing volatility occurs between tender submission and contract award
4	2.4	Potential for delays and design changes resulting from requirement to obtain National Highways Technical approval and legal agreement at tie-in with A49.
5	0.15	Key Herefordshire staff leave organisation or are absent due to sickness causing delay to programme, missing key deadlines or project inefficiencies

Appendix A Document copies

A.1 @Risk Output

The key outputs of the QRA are shown next highlighting the P(20), P(50) and P(80) risk values.

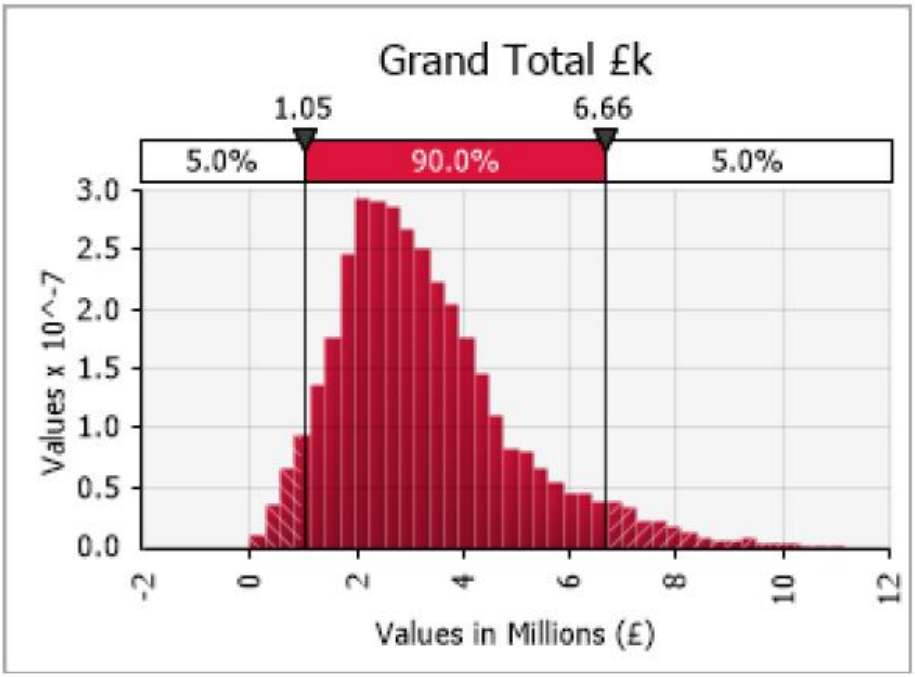
Results

Grand Total £k

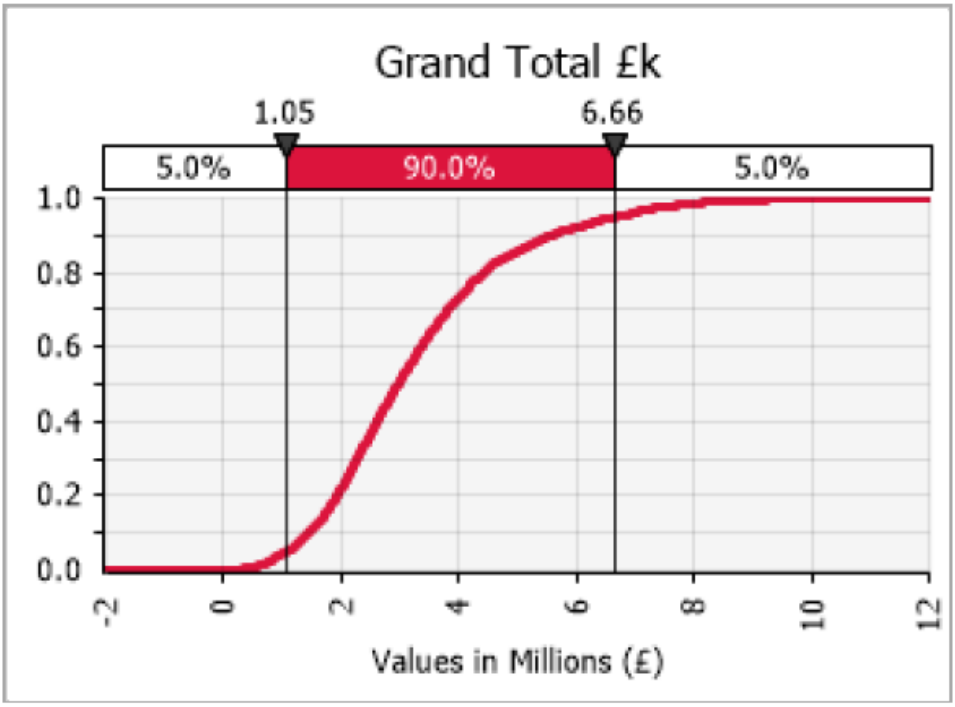
Report: **Compact Output Report**

Performed By: **helen.holm**

Date: **19 May 2026**



Summary Statistics	
Statistic	Value
Minimum	£9,771.17
Maximum	£11,169,034.61
Mean	£3,263,319.51
Std. Deviation	£1,667,121.68
Variance	2.779E+012
Skewness	1.0063
Kurtosis	4.1515
Median	£2,962,370.21
Mode	£2,213,618.59
Left X	£1,050,492.82
Left P	5%
Right X	£6,655,759.69
Right P	95%



Percentiles	
Percentile	Value
1%	£529,790.48
2.5%	£775,015.20
5%	£1,050,492.82
10%	£1,435,875.90
20%	£1,915,190.68
25%	£2,107,564.26
50%	£2,962,370.21
75%	£4,088,975.30
80%	£4,417,459.77
90%	£5,561,868.43
95%	£6,655,759.69
97.5%	£7,418,916.11
99%	£8,284,793.52

A.2 Risk Register

Hereford Western Bypass

Herefordshire Council

							Cost Impact estimate				Time Impact estimate		
ID	Type	Date logged	Risk Name	Description	Mitigation Measures	Owner	Min (£)	Max (£)	Likely (£)	Likelihood	Min (days)	Max (days)	Likely (days)
0.12	open	Jun-25	General & Staff Resources	Possible delay to works/ additional works due to delay in receipt of original design information for phase 1 along with missing information, including missing document issue register.	Missing native format drawings and models likely to increase time required to update recreate drawings and models where revisions are required	HC	£10,000	£50,000	£25,000	50%	0	20	10
0.13	open	Jun-25	General & Staff Resources	Change of Local Government threat to project, works on site to commence Dec 26. Scheme was cancelled previously due to change in local government.	Importance of keeping to programme and contract award enabling commencement of works on site Dec 26. Strategic risk - hence cost not assigned	HC	£0	£0	£0	0%	0	0	0
0.14	open	Jan-26	General & Staff Resources	Judicial review against a planning decision for the supplementary planning application within 6 weeks from the date of the decision (linked to 0.13)	Provide technical support and information to the Client. Site clearance during PCSA stage. AtkinsRealis to continue from Tender Stage work and keep design within constraints	HC	£0	£1,000,000	£250,000	20%	40	258	65
0.15	open	May-26	General & Staff Resources	Key Herefordshire staff leave organisation or are absent due to sickness causing delay to programme, missing key deadlines or project inefficiencies	Provide appropriate organisational resilience and succession planning.	HC	£0	£100,000	£30,000	50%	0	60	20
0.16	open	May-26	General & Staff Resources	Key Atkins/Grahams / AECOM staff leave organisation or are absent due to sickness causing delay to programme, missing key deadlines or project inefficiencies	Provide appropriate organisational resilience and succession planning.	Grahams/Atkins/ AECOM	£0	£50,000	£20,000	20%	0	15	5
1.1	Open	Jan-26	PM	The 2018 Bill of Quantity/Activity Schedule does not match the 2018 Scope and/or quantities calculated in PCSA stage and/or measured quantities differ from those developed in PCSA stage	Experienced team involved in the PCSA stage. Continuity of the team. Raise TQ's to resolve. Opportunity for optimisation of Earthworks Material Strategy to reduce imported fill.	HC	-£400,000	£2,000,000	£1,600,000	95%	0	0	0
1.2	Open	Jan-26	PM	Pricing volatility occurs between tender submission and contract award	Make an allowance for escalation based on feedback from supply chain and review of performance of current indices	HC	-£400,000	£2,000,000	£1,600,000	50%	0	0	0
2.1	open	Mar-25	Highways	Potential that the WCHAR for Phase 1 will need to be updated	We have planning and WCHAR would simply create further pressure relating to foot / cycle access along proposed route. Initial discussions	HC	£5,000	£50,000	£15,000	15%	0	0	0
2.2	open	Mar-25	Highways	Potential for undertaking additional Topographical surveys	Topo survey exists. Some further site based topo survey will be required at the extent of the red line boundary, particularly	HC	£5,000	£30,000	£20,000	95%	0	10	5
2.3	open	Mar-25	Highways	Potential for update of accommodation works (Bruton Knowles currently progressing). Potential to have to reproduce drawings if we can't get CAD versions.	Any accommodation works issues require resolving ASAP to prevent future programme delays.	HC	-£20,000	£50,000	£20,000	75%	0	20	0
2.4	open	Mar-25	Highways	Potential for delays and design changes resulting from requirement to obtain National Highways Technical approval and legal agreement at tie-in with A49.	There are some departures from standard on the new leg of the A49 roundabout (entry deflection criteria and exit width). These should be able to be resolved with minimal effort. Note this is a pre-commencement condition for this section and discharge of planning condition is required before temporary accesses to site from A49 can be approved	HC	£10,000	£400,000	£250,000	20%	0	80	40
2.5	Open	Jun-25	Highways	Potential to encounter tar bound material and potential for innappropriate pavement design at tie-ins due to lack of pavement investigation and survey information with associated H&S and design life implications	Complete pavement investigations at tie-ins in advance of construction to verify significance of issue and inform design	HC	£20,000	£300,000	£80,000	20%	0	0	0
2.6	Open	Jun-25	Highways	Potential for the pavement foundation design suitability and design life to be affected by Geotechnical concerns.	Verify geotechnical properties to confirm pavement design. Assumed now covered in D&B contract - assumed AECOM's input limited to potential review	D&B	£0	£60,000	£15,000	25%	0	5	1
3.1	Open	Jun-25	Structures	Risk of incomplete checks as insufficient information has been provided to confirm that the culvert size of structure S01 is correct (the flood level is not shown).	Update in PCSA design review	D&B	£0	£20,000	£10,000	25%	0	0	0
3.2	Open	Jun-25	Structures	Delays in Network Rail approvals eg due to refusal to re-approve outdated AIP and D&C certificates. (S05)		HC	£0	£1,250,000	£250,000	15%	5	60	20
3.3	Open	Jun-25	Structures	Re-certification design costs and TAA costs for railway bridge) S05)		HC	£50,000	£150,000	£75,000	95%	0	60	0
4.1	open	Jun-25	Drainage	Potential shallow groundwater in the vicinity of drainage attenuation ponds leading to the potential need for a liner incorporating uplift mitigation. This could require significant over excavation to provide the bulk fill overburden necessary for mitigation against uplift, or may require additional drainage measures to draw down groundwater levels. The earthworks and groundwater conditions for each pond will need to be reviewed and this could impact on the planning red line boundary	Consider completing additional testing to verify effectiveness of proposed balancing ponds. AECOM currently preparing proposal (Nov 25).	D&B/HC	£0	£400,000	£100,000	20%	0	20	5
4.2	open	Jun-25	Drainage	Hydrological risk arising due to the limited results from the soakaway testing will need to be reviewed	Consider completing soakaway tests to understand efficiency and scale of any soakaways required.	D&B	£20,000	£50,000	£30,000	50%	0	0	0
5.1	Open	Oct-25	Geotechnics	Phase 1: Due to geotechnical risks & opportunities identified potential for additonal GI and changes to GIR/GDR, earthworks and drainage design	Review design during PCSA stage and undertake additonal GI where required to inform any changes.	HC	-£2,000,000	£2,000,000	£0	0.5	-40	40	0
5.2	open	Oct-25	Geotechnics	Phase 1: Infilled quarry and clay pits were recorded in the vicinty of the scheme in the GIR. There is a risk that they or other un-recorded areas contain unsuitable or contaminated material which will require assessment of contamination or settlement and the design of mitigation and treatment.	Potential to review any additional information availabe on these historic features and the potential for other contaminated or unsuitable material. Designer cost impact only, does not include construction cost impacts.	HC	£0	£120,000	£20,000	10%	0	0	0
5.3	Open	Jan-26	Geotechnics	The ground conditions provided within the tender documentation are underestimated (unforeseen) including hydrogeology	Timely communication with the Client Plan and agree additional GI scope early within PCSA stage to inform design freeze	D&B	£0	£750,000	£500,000	15%	10	50	20
5.4	Open	Jan-26	Geotechnics	Unforeseen ground conditions encountered during construction differ from those identified in the PCSA stage, including hydrogeology (links to ID 5.14)	Raise EWN and discuss with Client. Allowance for Designer's Site Rep (DSR) to raise any issues and feedback to designers. Additional pre-surveys done in front of the works. Implement design changes as necessary.	HC	£0	£1,750,000	£500,000	15%	1	110	60
5.5	Open	Jan-26	Geotechnics	Project is impacted Weather > 1 in 10 years	Material specifications; Considering use of lime addition to RMF during placement, to achieve classification and provide wider ranges for moisture content. Confirm float within Tender Programme on earthworks items is adequate during PCSA stage. Sense check Tender Programme bulk earthworks seasonality of March to October seasons against final earthworks design.	HC	£0	£1,500,000	£250,000	25%	0	60	20
5.6	Open	Jan-26	Geotechnics	UXO may be discovered during intrusive ground activities e.g. excavation during the construction stage	UXO surveys to be undertaken in PCSA stage. UXO awareness and site procedures. Safe systems of work for intrusive ground activities. Agree emergency response arrangements.	D&B	£20,000	£100,000	£50,000	5%	0	10	0
6.1	open	Mar-25	Environmental	Potential that additional ecological surveys and assessments are required eg Habitats Regulations Assessment	Undertake PEA for supplementary planning applications as soon as possible	HC	£10,000	£70,000	£30,000	30%	0	5	0
6.2	open	Mar-25	Environmental	There is a risk that the Archaeological watching brief could identify further works to be required.	Undertake mitigation early in programme	HC	£0	£200,000	£100,000	10%	0	50	15
6.3	open	Mar-25	Environmental	Potential for fees payable to Natural England to obtain species licences for GCN and Dormouse along with additional mitigation measures with associated time constraints	Undertake mitigation early in programme	HC	£20,000	£50,000	£30,000	50%	0	60	0
6.4	open	Jun-25	Environmental	Potential for undertaking stand-alone invasive species surveys completed in isolation from other surveys. If invasive species left unidentified they could spread further. Additional costs of managing impact, potential programme delays. Some species are much easier to identify when plants are flowering.	Early surveys undertaken and on-going. Follow Environment Agency guidelines.	HC	£0	£80,000	£10,000	20%	0	5	3
6.5	open	Oct-25	Environmental	Delays to access for ecological survey works may result in missed survey windows and project delays.	Maintain regular updates with PM team and HC, and check ins with land agent to ensure that they are aware of survey window deadlines	HC	£0	£20,000	£10,000	30%	0	20	10
6.6	Open	Jan-26	Environmental	Archaeological finds are discovered on site (links to 6.5 and 6.16)	Watching Brief throughout construction. Targeted investigations in sensitive areas as part of the PCSA contract.	HC	£0	£2,500,000	£100,000	50%	7	129	7
6.7	Open	Jan-26	Environmental	Invasive non-native species (INNS) - Plants could be found on site e.g. Japanese knotweed (links to 6.17)	Undertake surveys (at the correct time of year). Timing of site clearance.	HC	£10,000	£200,000	£120,000	10%	5	20	10
6.8	Open	Jan-26	Environmental	The existing ancient/veteran tree at S04 causes construction issues	Surveys on tree roots to be undertaken in PCSA stage.	D&B	£0	£50,000	£20,000	25%	0	100	0
8													
8.1	open	Jun-25	Statutory Undertakers	Excessive Statutory Utilities diversion lead in/delivery times on SLR	Once appointed Contractor to engage early on with Utility Companies regarding making arrangements for diversions (for the SLR scheme).	HC	£0	£0	£0	40%	0	30	15
8.2	Open	Jan-26	Statutory Undertakers	Uncharted services are discovered on site	Undertake GPR Survey. Permit to Dig.	D&B	£0	£1,250,000	£50,000	10%	0	30	0
9.1	open	Mar-25	Planning	Potential that a S73 application will be required	Discuss any proposed changes with HC planning. We note that the structures drawings submitted at planning contained a high level of detail. The detail differed to that provided at detailed design.	HC	£0	£50,000	£25,000	75%	0	60	0
9.2	open	Jun-25	Planning	Secure consent trafficking of partially constructed railway bridge for earthworks haulage.	Opportunity as haul route already priced for. Supplementary planning application being submitted for haul route	D&B	-£500,000	£0	-£500,000	30%	0	0	0
9.3	open	Nov-25	Planning	Potential for Supplementary Planning application to require an environmental impact assessment - resulting in additional cost/ delay to planning approvals and construction as well as additional enivoronmental surveys	Submit planning pre-app followed by EIA scoping request	HC	£25,000	£50,000	£30,000	10%	0	40	0
9.4	Open	Jan-26	Planning	Deviations from planned possessions (shortened and/or cancelled possessions) affects works e.g. beam lift	Contingency in the programme. Good planning and early engagement.	D&B	£0	£250,000	£100,000	10%	0	50	20
9.5	Open	Jan-26	Planning	There is a risk that there will be a significant lead-in to getting approval of Traffic Management on the National Highways network (A49), and the Traffic Management required could be more onerous than anticipated	Early Engagement with National Highways. Traffic Management Working Groups with key stakeholders. Use internal experience from recent National Highways project deliveries.	D&B	£0	£150,000	£100,000	20%	0	20	0
10.1	open	Mar-25	Accommodation Works	Potential for issues relating to severance of land / PROW / water supplies. Delays in confirming how to proceed can cause programming issues once on site.	Bruton Knowles to provide details of agreements asap.	HC/BK	£0	£50,000	£30,000	25%	0	20	10
10.2	open	Mar-25	Accommodation Works	Additional design work required to provide access to land parcels severed by the works - potential for land ownership to have changed and different access requirements now required to previous or accommodation works scope changes due to land owner negotiations	Bruton Knowles to identify any such situations asap.	HC	-£100,000	£100,000	-£20,000	10%	0	0	£0
11.1	open	Mar-25	Stakeholders	Potential for additional TROs /SROs above those already identified / obtained.	Need for additional TROs /SROs or TTROs particularly around Haywood lane curently being reviewed by Sharpe Pritchard	HC	£20,000	£40,000	£30,000	50%	0	50	0
11.2	open	Mar-25	General & Staff Resources	Potential that the statutory orders will need to be amended or updated, resulting in delays to CPO	Some amendments required to orders, currently being revised. May require further cabinet approvals. Sharpe Pritchard progressing revised orders.	HC	£10,000	£50,000	£25,000	0	0	60	0
11.3	open	Nov-25	Stakeholders	Potential for CPO to be required for land acquisition resulting in design change, delays to construction and possible public enquiry following	Bruton Knowles currently completing negotiations with land owners.	HC	£0	£250,000	£100,000	40%	0	390	40

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Appendix H – Distributional Impact Assessment

Hereford Western Bypass Phase 1

Distributional Impacts Appraisal Report

June 2026

Quality information

Prepared by	Checked by	Approved by
Luke Pestaille Graduate Consultant	Dr Alex Chappell Principal Consultant	Paul Bate Regional Director

Revision History

Revision	Revision date	Details	Authorised	Name	Position
v1.2	June 2026	Final Version	Yes	PB	TD

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1. Introduction

1.1 The Scheme and Characteristics of the Area

1.1.1 Hereford is a cathedral city and county town in the county of Herefordshire, which is in the West Midlands region of England, approximately 16 miles east of the border with Wales.

1.1.2 Phase One of the Hereford Western Bypass will connect the A49 at the B4399 roundabout in Grafton, south of Hereford, to the A465 at a new roundabout junction with the B4349 in Clehonger, south-west of Hereford. The new road being developed for the scheme will cross open farmland and the Hereford to Newport Railway Line.

1.1.3 By providing a direct link between the A49 and the A465, Phase One of the Hereford Western Bypass aims to reduce the west-east commuting and freight traffic that currently uses Ross Road (A49), Belmont Road (A465), Walnut Tree Avenue and Holme Lacy Road in South Wye, and secondary rural routes to the south of the City.

1.1.4 The west-east traffic using indirect routes contributes to congestion and the environmental impacts of slow-moving traffic across residential areas of South Wye. It also contributes to turning traffic at accident-prone junctions including many on Belmont Road, Ross Road, Holme Lacy Road in the City, and at Lock's Garage on the A465.

1.1.5 **Figure 1-1** shows the location of Phase One of the Hereford Western Bypass ('the scheme') relative to the City of Hereford.

1.1.6 **Figure 1-2** shows the location of amenities and employment areas in Hereford. There is a concentration of amenities in the centre of Hereford. Employment is concentrated around Hereford Enterprise Zone (Rotherwas), the City Centre and the A49 corridor north of the River Wye (Avara Foods, Heineken, Special Metals and others). Shopping is concentrated in the City Centre and to the north along the A49. The rest of the city north of the River Wye is dominantly residential. South of the River Wye (South Wye) the city is almost entirely residential. These locations act as origins and destinations for journeys that define the patterns of travel within Hereford.

Figure 1-1: Scheme Location and the City of Hereford

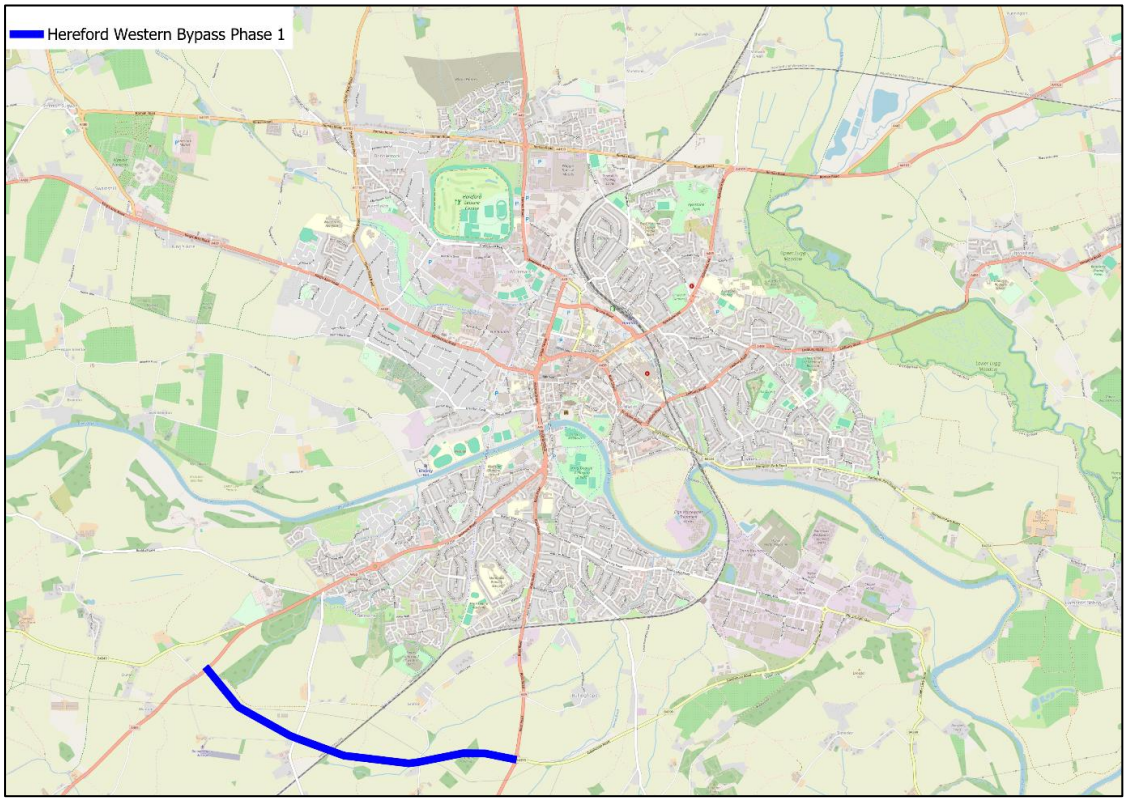
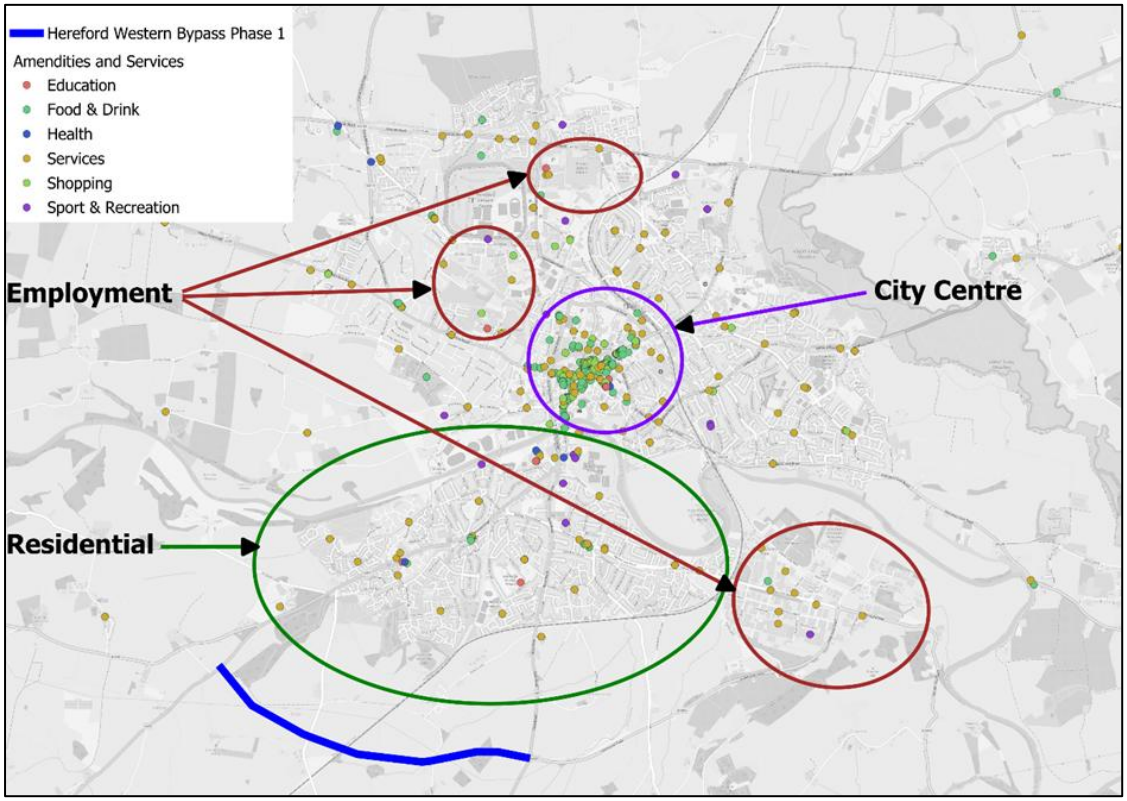


Figure 1-2: Land Use Around Hereford



1.1.7

1.1.8 **Figure** 1-3 shows the distribution of deprivation across Hereford. This is the SEISA deprivation index based on the 2021 Census which is calculated at Output Area (OA) scale which enables it to pick up small areas of deprivation that Indices at larger geographies would miss. The most deprived areas are predominantly located in the city and surrounding rural areas are relatively affluent. Within Hereford there are places that are in the most deprived 20% of areas in England. There are pockets with this high level of deprivation across the city with concentrations to the west of the City Centre in Whitecross and a large area of South Wye. Affluent areas in the least deprived 40% of areas in England are close to the River Wye and in the eastern part of the city. The scheme itself crosses rural areas in quintiles 3 and 4 (40% to 80%).

1.1.9 **Figure 1-4** shows the proportion of the population in Hereford that are under 16 years old from the 2021 Census at OA scale. Higher proportions (>20%) of children are generally concentrated in the city, particularly in parts of South Wye where some OAs exceed 30% children. This indicates many families and fewer older people in these areas. In contrast, lower proportions of children are typically observed in the surrounding rural areas.

1.1.10 **Figure 1-5** shows the proportion of the population aged between 16 and 25 from the 2021 Census at OA scale. Proportions are typically slightly higher in the City compared to surrounding rural areas. A higher proportion (20%-40%) is recorded in the City Centre and at the bottom of Aylestone Hill. This reflects the location of the NMITE student accommodation.

1.1.11 **Figure 1-6** illustrates the proportion of the population aged 70 and over from the 2021 Census at OA scale. Central Hereford generally exhibits lower proportions of this age group, typically ranging between 10% and 30%. The surrounding areas show a significantly higher concentration of older residents, with many locations exceeding 30% of the population. Many areas with a low proportion of children have a high proportion of older residents. This pattern reflects differing lifestyle and employment needs, as this age group is largely retired. Fayre Oaks Park is the OA with the highest proportion of residents aged 70 and over. It is an over-50’s community with more than 60% of residents aged 70 or over.

1.1.12 **Figure 1-7** reveals the proportion of households without access to a car from the 2021 Census at OA scale. A high percentage of no-car households is evident within central Hereford and South Wye. There are a number or reasons for this – student population in the city centre, areas of deprivation, areas with more older people and a higher propensity to make journeys by active modes in a relatively small city. In contrast, most rural areas surrounding Hereford have fewer than 10% of households without access to a car, as irrespective of deprivation level a car is required to efficiently access employment and services.

1.1.13 **Figure 1-8** shows the proportion of the population within each output area who identify as disabled from the 2021 Census at OA scale. Hereford shows areas with a higher proportion of disabled residents (>30%), which may reflect requirements of greater need for services and availability of public transport services. There is some correlation with areas of older population (e.g. Fayre Oaks, Beattie Avenue) and the halls of the Royal National College for the Blind on Venns Lane. In contrast, the surrounding rural areas tend to display lower proportions of people with disabilities, potentially influenced by the reduced accessibility and availability of services in these locations due to the need for vehicles.

Figure 1-3: Levels of Deprivation (SEISA)

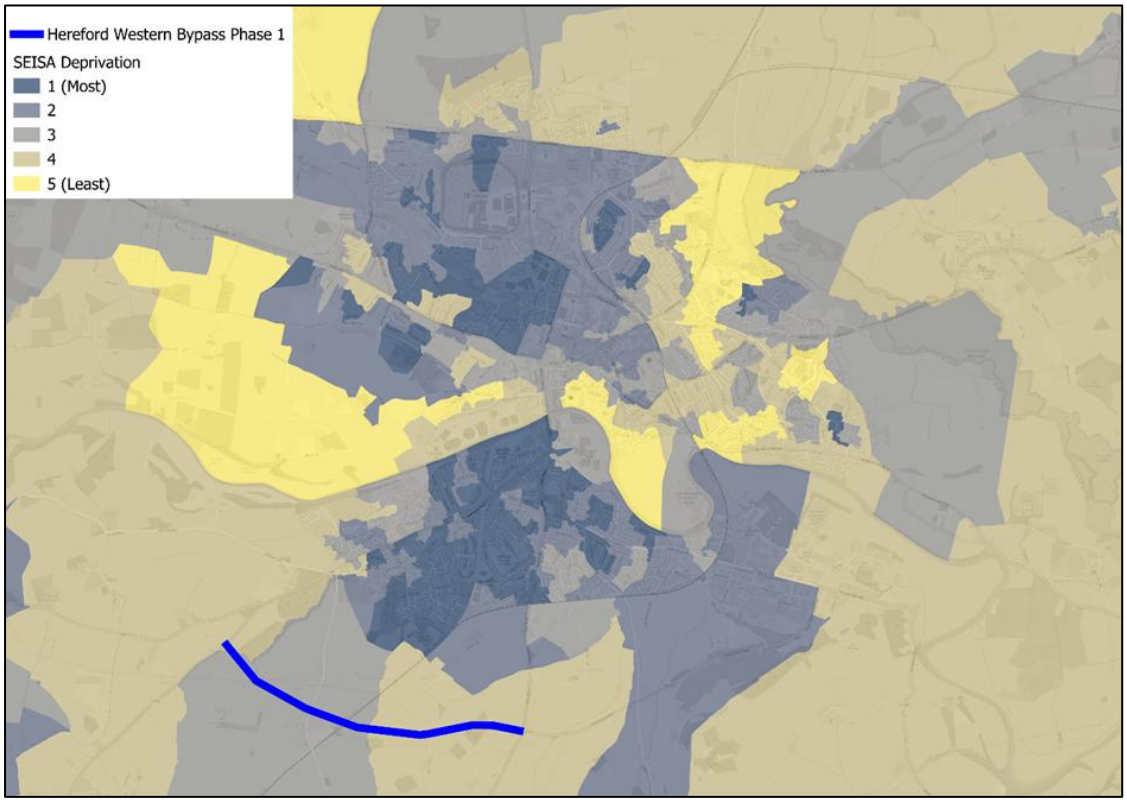


Figure 1-4: Proportion of Children



Figure 1-5: Proportion of Young People



Figure 1-6: Proportion of People Aged 70 and Over

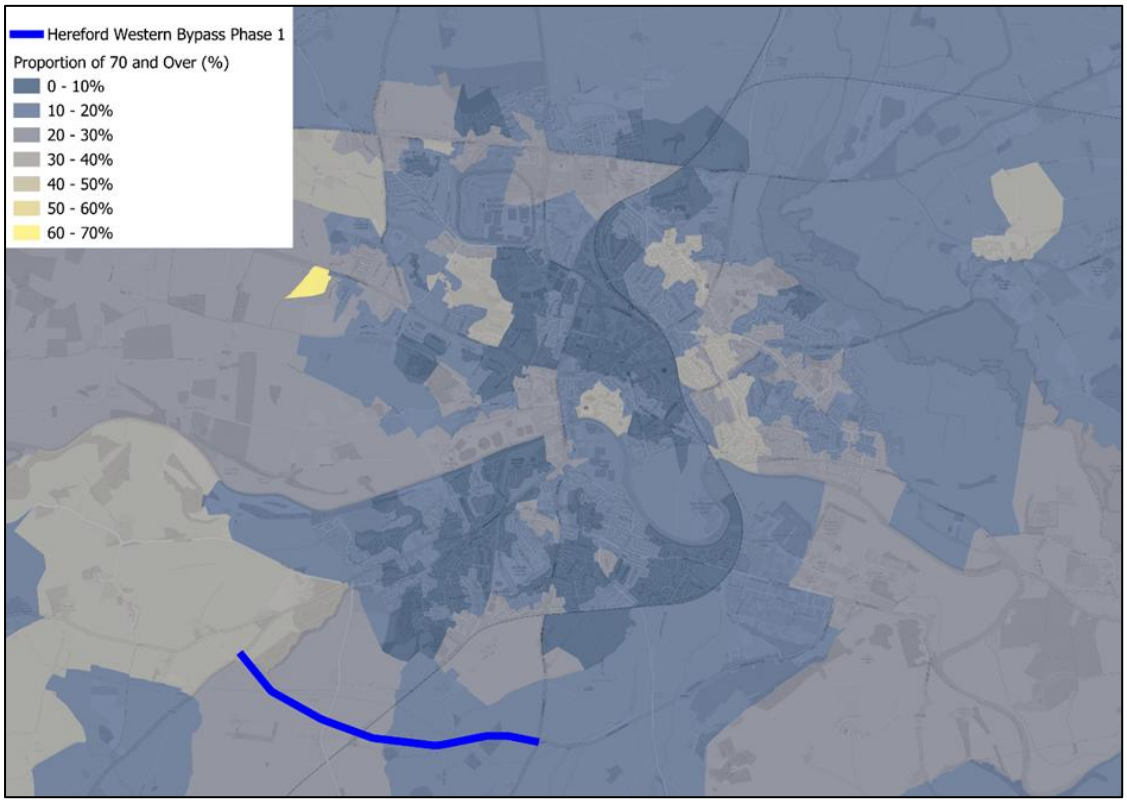


Figure 1-7: Proportion of households with no car within the centre of Hereford



Figure 1-8: Proportion of people with disabilities within the centre of Hereford



1.2 Assessment of Distributional Impacts

1.2.1 Distributional impacts consider the variance of transport intervention impacts across different social and economic groups. Both beneficial and adverse impacts need to be considered as well as identification of social groups likely to be affected (TAG Unit A4.2, May 2024).

1.2.2 TAG specifies the consideration of distributional impacts for several indicators:

- user benefits (economic benefits for non-business travel);
- noise impact of the scheme on the resident vulnerable population;
- air quality impact of the scheme on the resident vulnerable population;
- changes in accident rate;
- security (related to access to public transport);
- severance (primarily for active travel);
- accessibility (ease of access to services by public transport); and
- personal affordability (economic cost of non-business travel).

1.2.3 Not all social groups are sensitive to each indicator; and it is only necessary to investigate affected groups. They are set out in TAG Unit A4.2 and are reproduced in **Table 1.1**:

Table 1.1: Social Groups Assessed for Each Indicator

Social Group	User Benefits	Noise	Air Quality	Accidents	Security	Severance	Accessibility	Affordability
Income distribution	✓	✓	✓				✓	✓
Children: proportion of population aged <16		✓	✓	✓	✓	✓	✓	
Young adults: proportion of population aged 16-25				✓			✓	
Older people: proportion of population aged >70		✓		✓	✓	✓	✓	
Proportion of population with a disability					✓	✓	✓	
Proportion of population of Black and Minority Ethnic (BME) origin					✓		✓	
Proportion of households without access to a car						✓	✓	
Carers: proportion of households with dependent children							✓	

1.2.4 For each indicator a three-step approach is used as defined in TAG:

- **Step 1 - Screening Process:** Identify the likely impacts for each indicator in the different scenarios (the outcome of this step is the TAG screening proforma);
- **Step 2 - Assessment:** Determine the area of impact (AoI) of the transport intervention, identify the distribution of the socio-economic groups in the area; and identify the local amenities in the area;
- **Step 3 - Appraisal of Impacts:** Core analysis of the impacts.

1.3 Sources of Data

1.3.1 Analysis used a variety of sources of data to allow the scheme impacts to be defined at Census Lower Super Output Area (LSOA) and Output Area (OA) scale. Primarily, 2021 Census data was utilised at OA scale allows for a detailed and disaggregated analysis of deprivation and other population characteristics. This diverges from the socio-demographic data sources suggested within TAG Unit A4.2, as these are largely outdated and are superseded by the data available after the 2021 Census and after the COVID19 pandemic.

1.3.2 The 2021 Census Bulk Data from Nomis was utilised for the analysis of different social groups as it provides all data from the 2021 Census at every geographic scale (OA, LSOA, MSOA, and others). This allows for breakdown of the proportion of different social groups at a small scale within the area of impact for each indicator.

1.3.3 Where the Area of Impact (AoI) for an indicator is small relative to LSOA geography, OAs are used to avoid missing the variation in impact across the population. Due to the sparse population in rural Herefordshire LSOAs tend to be geographically very large, so analysis by OA is required to avoid missing pockets of deprivation and other vulnerable characteristics.

1.3.4 The Higher Education Statistics Agency Socioeconomic Index for Small Areas (SEISA) was mostly used as a proxy for income rather than the English Indices of Deprivation (IoD) Income Deprivation Index.

1.3.5 The income domain of the 2025 English Indices of Deprivation was used in the user benefits and personal affordability appraisals to represent income as the scale of the appraisal (the whole County of Herefordshire) was large enough to use LSOA geography.

1.3.6 Data from the STATS19 collision reporting system was utilised for road-related accidents to analyse collisions and casualties. This allowed for all the casualty data to be analysed for a given collision.

1.3.7 Additional data from Open Street Map is used to capture data on the land use and amenities within Herefordshire. This provides more background information to support the analysis of travel patterns and affected areas within the AoI for each indicator.

1.3.8 These socio-economic data are combined with the forecast traffic data from the Core Scenario transport model; and further outputs from standard Department for Transport (DfT) processes such as TUBA (transport user benefits), COBALT (accident valuation) and environmental modelling used to monetise changes due to the scheme. This allows changes in transport impacts, such as user benefits, air quality, and noise levels to be mapped to the characteristics of the affected population.

2. Distributional Impacts of User Benefits

2.1.1 The transport user benefits of the proposed scheme were calculated using the DfT's TUBA software for a standard period of 60 years. The pattern of benefits for the distributional impact appraisal was extracted from the 2043 (design year) TUBA data and is presented in this section. The total benefits are from the full 60 years calculation and will follow a similar pattern.

2.1.2 For distributional impacts, only the benefits resulting from non-business journeys were considered. Business trips are experienced by businesses and not individuals. The non-business trips in HSTM are allocated to one of 5 quintiles in the 2025 Indices of Deprivation (IoD) income domain data, representing income, at Lower Super Output Area (LSOA) scale.

2.2 Screening of User Benefits

2.2.1 Time benefits are a key impact of the proposed scheme, so a distributional impact assessment of user benefits is required. TAG states that once the user benefits are assessed using the TUBA software or equivalent, a full distributional impact analysis should be undertaken.

2.3 Assessment and Appraisal of User Benefits

2.3.1 The Area of Impact (AoI) for user benefits appraisal was defined as all of Herefordshire.

2.3.2 The user benefits calculated by TUBA are filtered to only include trips which have a home location inside the Area of Impact. The non-business trips, namely 'commuting' and 'other' purpose trips, were aggregated by IoD income domain quintile, representing income level of the resident population. The user benefits include monetisation of changes in travel time and changes in fuel and non-fuel operating costs for travel. Benefits relating to changes in indirect taxation and greenhouse gases are excluded from this analysis. The results of the distribution impacts assessment for user benefits are presented in **Table 2.1**.

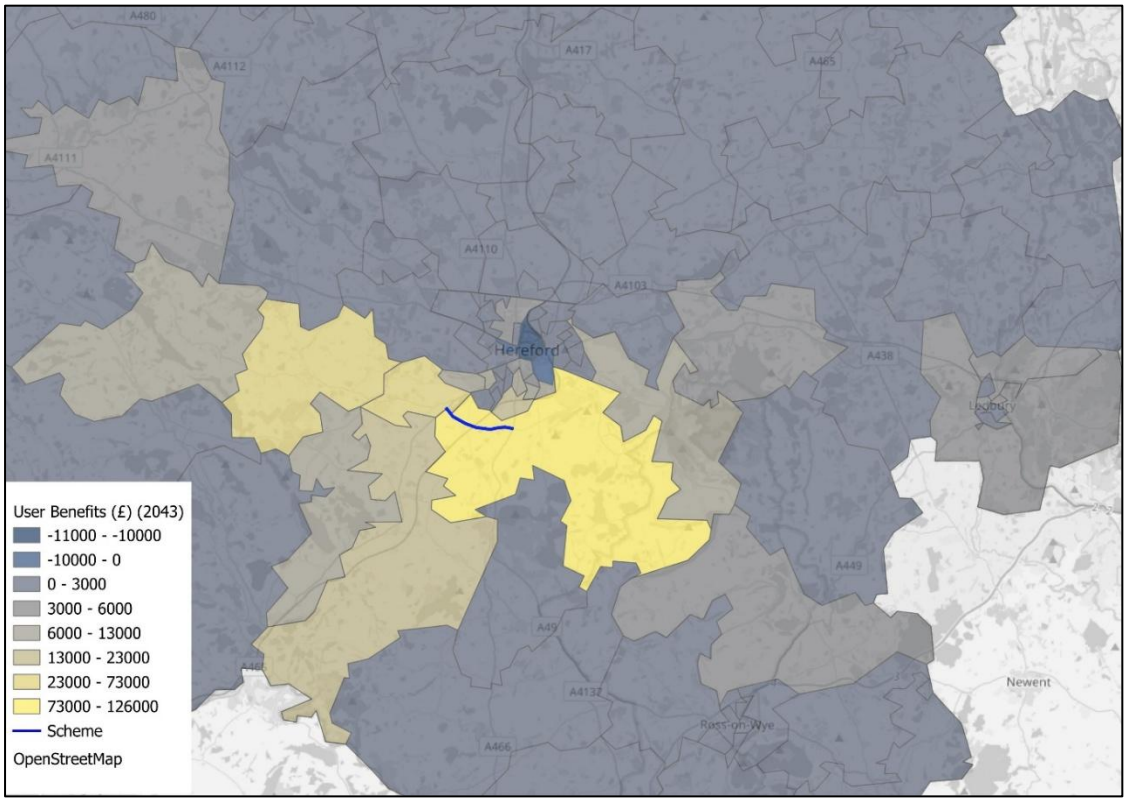
2.3.3 The user benefits are unevenly distributed across the population. All income groups have net beneficial impacts from the scheme. The proportion of benefits is broadly in-line with the proportion of the population for the two lowest, most deprived, groups and group 4. Group 3 receives a disproportionately large share of benefits and group 5 receives a disproportionately small share of benefits.

2.3.4 **Figure 2-1** shows the distribution of user benefits by LSOA around Hereford. The main area experiencing beneficial impacts is south of the River Wye extending to the west and southeast of the scheme. The largest benefits are for the LSOA containing Hereford Enterprise Zone (Rotherwas) and the LSOAs to the west of the scheme containing Clehonger and Madley. Beneficial impacts decrease with distance from the scheme as fewer journeys further away use the area directly influenced by the scheme. Apart from three LSOAs in the centre of Hereford which have small adverse impacts, all LSOAs in Herefordshire have beneficial impacts.

Table 2.1: Distributional Impacts of User Benefits (2043 Core Scenario Only)

	Quintile					Total
	1 Low income	2	3	4	5 High Income	
Population	10,876	27,195	62,706	68,018	15,390	184,185
% Population	6%	15%	34%	37%	8%	
Total Benefits (£) (2043)	12,970	50,333	254,615	161,664	5,104	484,687
Total Disbenefit (£) (2043)	-	-	-	-	-	
% Benefits	3%	10%	53%	33%	1%	
% Disbenefit	-	-	-	-	-	
Assessment[1]	✓✓	✓✓	✓✓✓	✓✓	✓	

Figure 2-1: User Benefits Shown at LSOA Scale



[1] See TAG Unit A4.2 Table 8.

3. Distributional Impacts of Noise

3.1.1 Children and older people are identified as being vulnerable to changes in noise levels. It is also considered that people with a lower income are less likely to afford mitigation against noise (e.g. installing insulation or double glazing). As a result, income groups are also included in the analysis of the distributional impacts of noise as suggested by TAG.

3.2 Screening of Noise

3.2.1 According to TAG Unit A3, noise impacts are likely to occur when an intervention results in changes to traffic flows or speeds. Both are forecast to occur in the case of the proposed scheme, and its impacts on the specified key groups of people have been assessed.

3.3 TAG Appraisal of Noise

3.3.1 The noise appraisal for the proposed highway improvements has been undertaken based upon the TAG Unit A3.

3.3.2 The appraisal considers absolute traffic noise levels, changes in traffic noise levels and the impacts on residential properties for the following scenarios:

- Without Scheme 'Do-Minimum' 2028 (DM 2028): opening year;
- Without Scheme 'Do-Minimum' 2043 (DM 2043): forecast year (15 years after full opening);
- With Scheme 'Do-Something' 2028 (DS 2028): opening year; and
- With Scheme 'Do-Something' 2043 (DS 2043): forecast year (15 years after full opening).

3.3.3 The TAG Unit A3 appraisal involves the following steps:

1. Scoping;
2. Quantification of noise impacts;
3. Estimation of the affected population;
4. Monetary valuation of noise impacts; and
5. Distributional Impact (DI) Analysis.

3.3.4 The appraisal presented here covers Steps 2 to 4. The DI analysis follows.

3.3.5 Step 2 (quantification of noise impacts) requires the calculation of the with-scheme and without-scheme noise impacts using CRTN.

3.3.6 The daytime noise metric used in the TAG appraisal is the façade level $L_{Aeq,16hr}$ (defined as 07:00 to 23:00 hours). Therefore, the predicted road traffic noise level, $L_{A10,18hr}$ (the standard noise metric output from a CRTN calculation), needs to be converted to an equivalent $L_{Aeq,16hr}$. The conversion factor is:

$$L_{Aeq,16hr} = L_{A10,18hr} - 2 \text{ dB}$$

3.3.7 Night noise impacts (23:00 to 07:00) can be assessed based on transformations between day and night-time metrics and should be based on free-field noise levels. For this appraisal, noise levels have been converted using the revised TRL Method 3[2] as follows:

$L_{Aeq,8hr}$ = 0.90 x $L_{A10,18hr}$ – 3.77 dB (non-motorway roads)

3.3.8 Step 3 (estimation of the affected population) involves calculating the difference in the estimated population affected by noise, comparing with-scheme and without-scheme cases. The estimation of affected population is carried out using the TAG Noise Workbook[3] using an average household size of 2.3 people per household.

3.3.9 Step 4 (monetary valuation of noise impacts) appraises the monetary valuation attributed to changes in noise, and is based on the estimation of the number of disability adjusted life years (DALYs) lost or gained. The monetary valuation is intended to complement the Step 3 quantitative noise appraisal (i.e. the number of households experiencing increases or decreases in noise). These monetary values come from the TAG Noise Workbook.

3.3.10 Step 5 (DI Analysis) is described in TAG Unit A4.2. The noise results have been provided to the transport team to undertake this analysis.

3.4 Study Area

3.4.1 TAG Unit A3 does not specify the study area to consider. LA 111 states that "An operational study area defined as the area within 600 m of new road links or road links physically changed or bypassed by the project can be sufficient for most projects, but it can be reduced or extended to ensure it is proportionate to the risk of likely significant effects."

3.4.2 Following this guidance 600 m around the Proposed Scheme as well as routes expected to experience more than a 1 dB change in road traffic noise level was selected as the study area. Roads bypassed by the scheme are all included as affected routes. Bage Pitch Road is an affected route from Madley to the A438 however due to the small number of receptors along this route the study area was only extended 600 m either side of this road from Madley. This is following the assessment proportionality guidance in TAG Unit A3. The total number of residential receptors in the study area is 2393.

3.5 Noise Modelling

3.5.1 All predicted road traffic noise levels have been calculated using the SoundPLAN© noise prediction software (version 9.1 Update 19/02/2026), set to predict the $L_{A10,18hr}$ traffic noise level at receptor locations in accordance with CRTN.

3.5.2 SoundPLAN© models have been built for the without-scheme scenarios for both the opening year (2028) and forecast year (2043), and for the with-scheme scenarios for both years. All calculations are based on the predicted traffic flows and associated variables for the opening year and forecast year as supplied in the form of 18-hour AAWT (annual average weekday traffic), traffic speeds in km/h, and HGV percentages.

3.6 Results for Distributional Impacts Appraisal

3.6.1 The results supplied for distributional impacts analysis and appraisal are shown in

3.6.2 **Figure** 3-1 and **Figure 3-2** for daytime and night-time respectively. These show the change in noise for receptors close to the affected road network. Most receptors have no change in

[2] P.G Abbott (TRL) and S.J. Stephenson (2006) *Method for Converting the UK Road Traffic Noise Index $L_{A10,18h}$ to the EU Noise Indices for Road Noise Mapping*
[3]Department for Transport (May 2026) *TAG Unit A3 Environmental Impact Noise Worksheet accessed on 27th May 2026* https://assets.publishing.service.gov.uk/media/6a171249c7335e2ca6daac19/tag-workbook-noise.xlsx

noise. The remainder have impacts commensurate with the reassignment of traffic on rural routes.

Figure 3-1: Affected Residential Noise Receptors with Noise Changes (2043 Day)

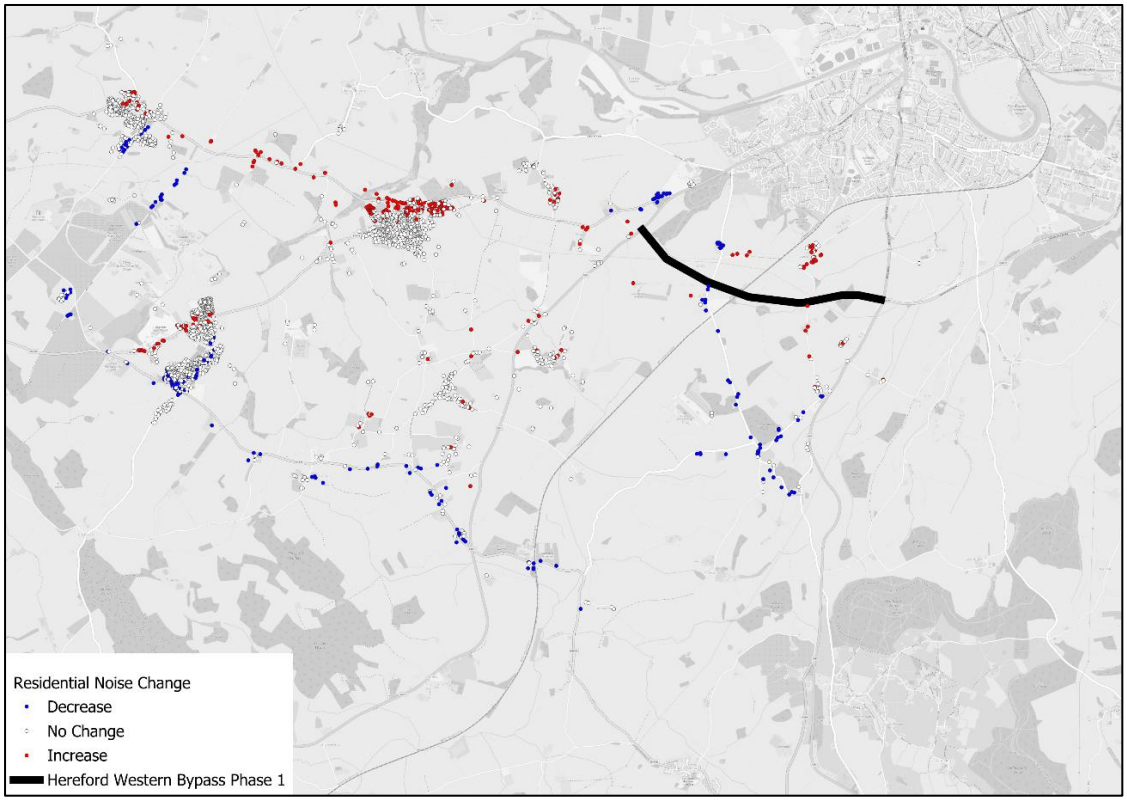
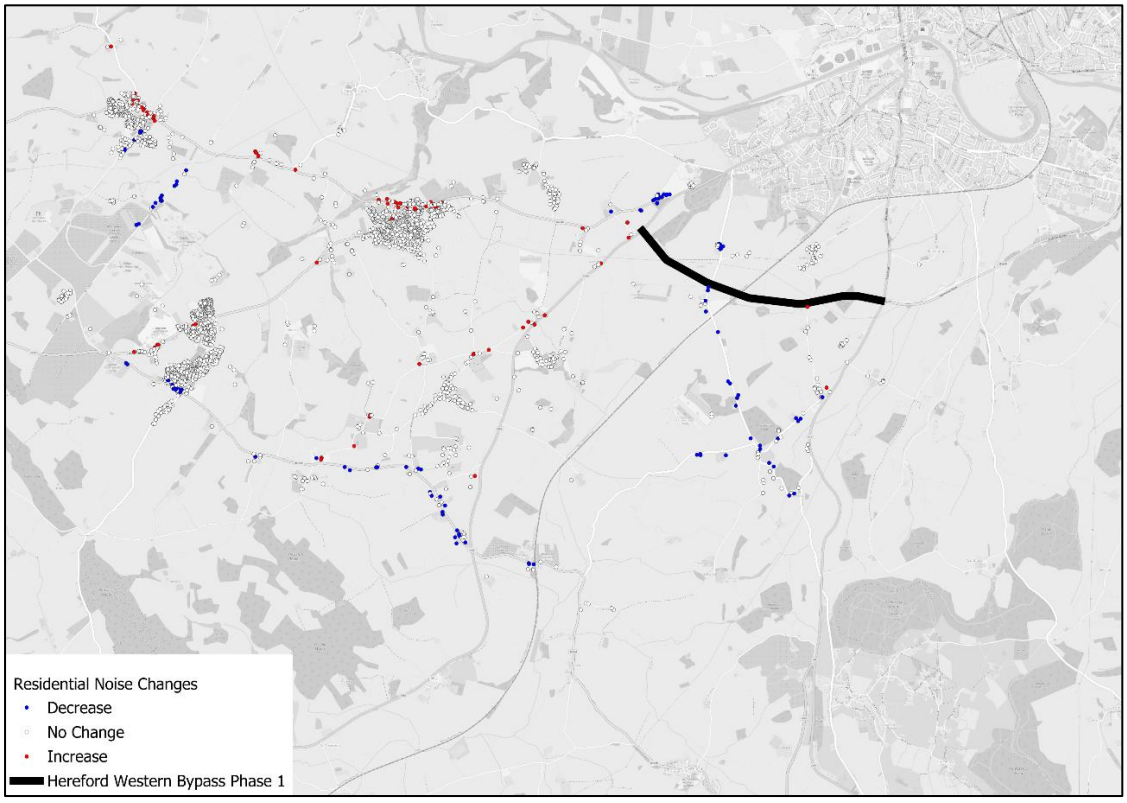


Figure 3-2 Affected Residential Noise Receptors with Noise Changes (2043 Night)



3.7 Noise Impacts by Income Deprivation

3.7.1 Traffic noise modelling data were provided for residential buildings for the 'with-scheme' scenario and the 'without-scheme' scenarios for the 2043 forecast year, representing the design year. The traffic noise level assigned to each building is based on the façade which undergoes the worst-case change in the long-term due to the scheme. The Output Area (OA) in which each of these buildings is located was identified and the income and population characteristics for that OA are assumed for its residential buildings.

3.7.2 The populations in each income group that would experience improvements in noise quality (i.e. reductions in traffic noise), no change, or decrease in noise quality (i.e. increases in traffic noise) were calculated.

3.7.3 The income group data by Output Area derived from the 2021 Census using the SEISA method was used to split the population by income. The area covered by the noise modelling is relatively small relative to LSOA geography and the more granular SEISA data at OA scale is at a more suitable scale to derive variations in noise impact by income.

3.7.4 There are higher proportions of the population in income groups 2 and 4 (34% and 39%) and lower proportions in groups 1 and 3 (11% and 16%) in the Area of Impact (AoI) for noise. Group 5, the least deprived, is not present. This pattern is due to the selected AoI, whereas including South Wye would give a population dominated by the lowest two income groups such as that seen for the air quality modelling.

3.7.5 **Table 3.1** shows the forecast daytime noise impacts, whether positive, negative or neutral, for households in each of the five income groups for 2043. Most households have no change in noise. 270 households have increased noise and 207 have decreased noise. These are distributed unevenly between income groups. Groups 1 and 4 have adverse impacts broadly in line with the proportion of population. Group 2 has a higher proportion of adverse impacts than population due to an increase in traffic on the B4349 in Clehonger village. Group 3 has a beneficial impact due to receptors largely falling on the west-east routes relieved of traffic by the scheme. Group 5 is not present.

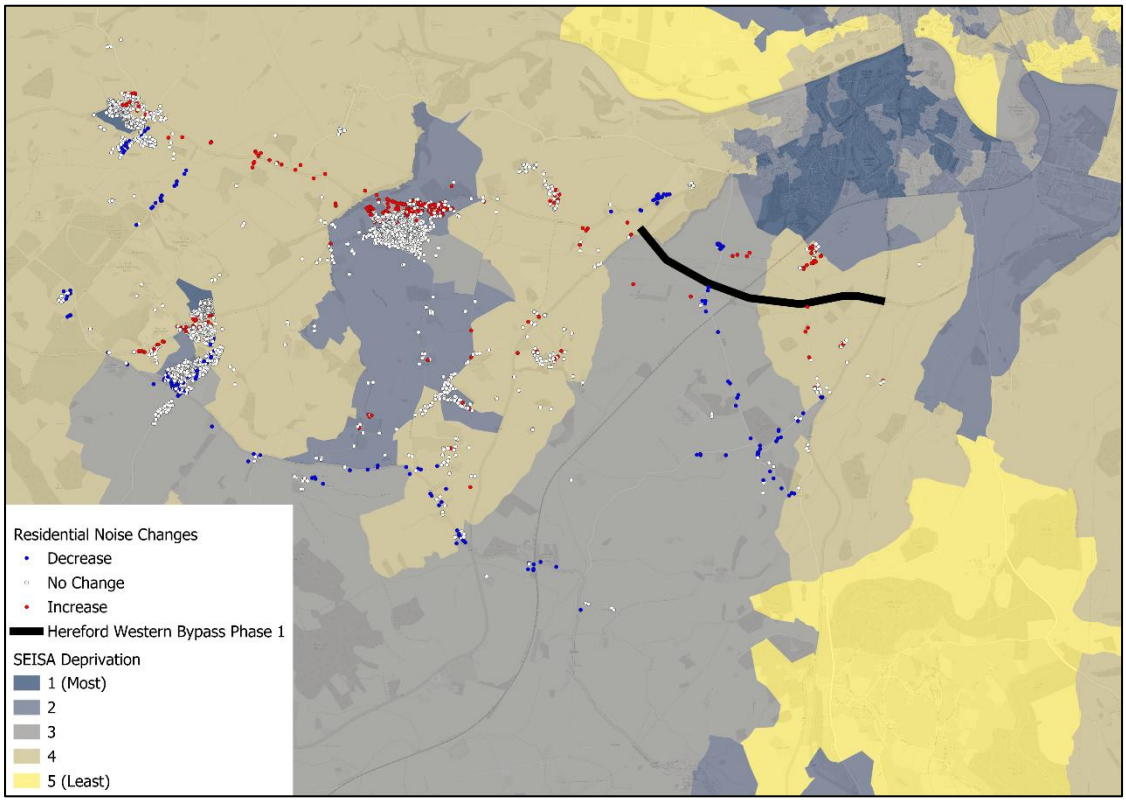
3.7.6 Although improvements in traffic noise impacts could be expected within the city, it was not considered proportionate to do detailed noise modelling at this stage.

3.7.7 **Figure 3-3** shows the location of the modelled noise receptors with changes in noise, alongside the SEISA level of deprivation, where 1 is most deprived, and 5 is least deprived group. The concentration of adverse noise impacts along the B4349 in Clehonger village is clearly seen and the mostly beneficial noise impacts in the large area assigned to income group 3.

Table 3.1: Impact of Noise on the Population by Income Band (2043 Daytime)

	Income Quintile					Total
	1 (Low)		2	3	4	5 (High)	
Increased noise	8		135	13	114	0	270
Decreased noise	1		16	101	89	0	207
No change in noise	248		630	267	692	0	1,837
Net winners/losers	-7		-119	88	-25	0	-63
Percentage of net winners/losers	11%		189%	-140%	40%	0%	
Percentage of Population	11%		34%	16%	39%	0%	
Assessment4	××	×××	✓✓✓	××	neutral		

Figure 3-3: Residential Noise Changes and Deprivation Levels (2043 Day)



3.7.8 To identify the distributional impacts of changes in night-time noise levels, an assessment by income deprivation quintile was also carried out using night-time noise levels ($L_{Aeq,8\ hour}$, façade) for 2043. The results of this assessment are shown in **Table 3.2** and **Figure 3-4**.

3.7.9 The results show that very few households experience a change in night-time noise levels. Of those that do, 117 experience an decrease in noise and 70 an increase. Across income groups, the impact of the scheme is unevenly distributed. Like the daytime forecast, groups 2 and 3 have large impacts, negative and positive respectively, for similar reasons to the

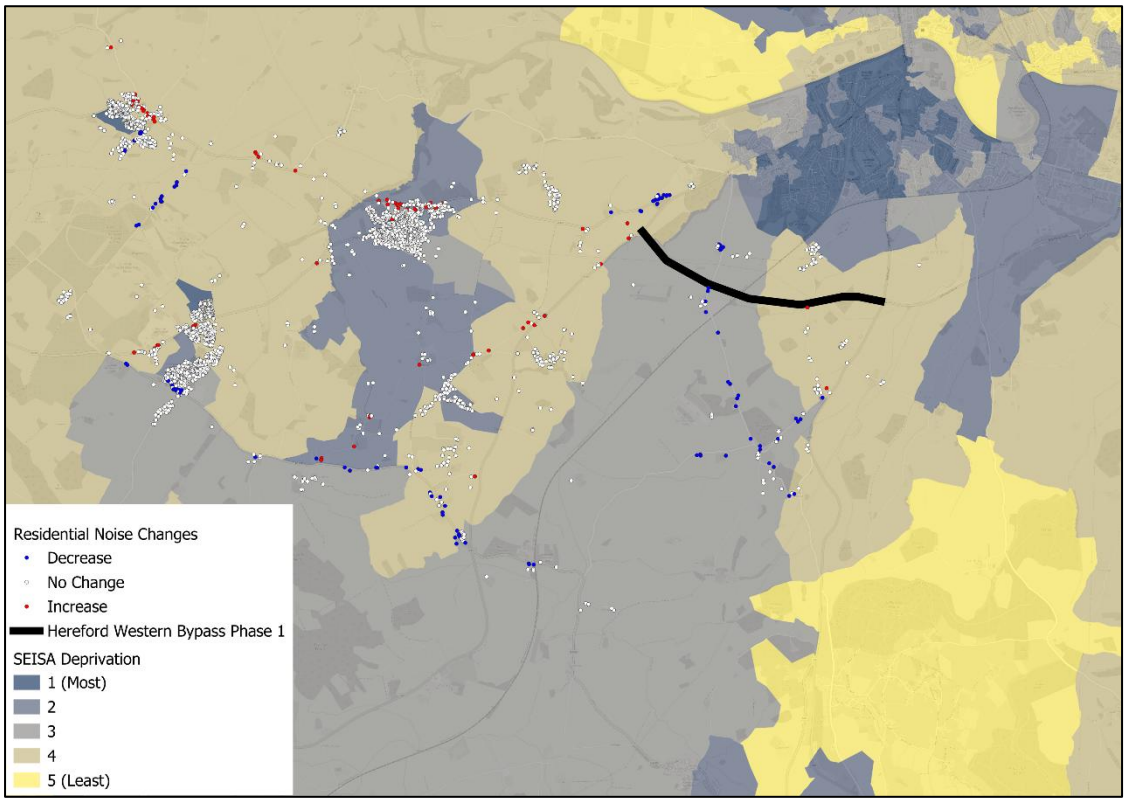
[4] *Ibid*.

daytime analysis (3.7.6). Groups 1 and 4 have slight beneficial impacts in this case and group 5 is not present.

Table 3.2: Impact of Night-time Noise on the Population by Income Band (2043)

	Income Quintile					
	1 (Low)	**2**	**3**	**4**	**5 (High)**	**Total**
Increased noise	0	27	2	41	0	70
Decreased noise	0	3	62	52	0	117
No change in noise	257	751	317	802	0	2127
Net winners/losers	0	-24	60	11	0	47
Percentage of net winners/losers	0%	-51%	128%	23%	0%	
Percentage of Population	11%	34%	16%	39%	0%	
Assessment[5]	✓	×××	✓✓✓	✓	neutral	

Figure 3-4: Residential Noise Changes and Deprivation Levels (2043 Night)



3.8 Noise Impact on Vulnerable Groups

3.8.1 Vulnerable groups for noise impacts are defined as children and older people. Impacts at residential locations are calculated in the same way as for income, comparing the proportion

[5] *Ibid.*

of net winners/losers to the proportion of the affected population for each group. ‘Adult’ results are not reported but are included in the calculation.

3.8.2 The proportions of the population that are children and older people used for assessment are those described in the 2021 Census in each OA. Results are shown in **Table 3.3,**

3.8.3 **Figure** 3-5 and Figure 3-6 for daytime noise; and in Table 3.4**,** Figure 3-7 and **Figure 3-8** for night-time noise.

3.8.4 Most people do not experience a change in daytime noise. Daytime impacts are adverse for children and older people that are affected. The number of net winners/losers is small. Impacts are in-line with the population for children and disproportionately small for older people.

3.8.5 Most people do not experience a change in night-time noise. Night-time impacts are beneficial for children and older people that are affected. The number of net winners/losers is small. Impacts are in-line with the population for children and disproportionately large for older people.

Table 3.3: Impact of Noise on the Population by Vulnerable Group (2043)

	Vulnerable Group		
	Children	**Older**	**Total**
Population with increased noise	105	113	621
Population with decreased noise	79	99	476
Population with no change in noise	770	813	4,225
Net winners/losers	-26	-14	-145
Percentage of net winners/losers	18%	10%	
Percentage of Population	18%	19%	
Assessment	××	×	

Figure 3-5: Residential Noise Changes and Child Proportion (2043 Day)

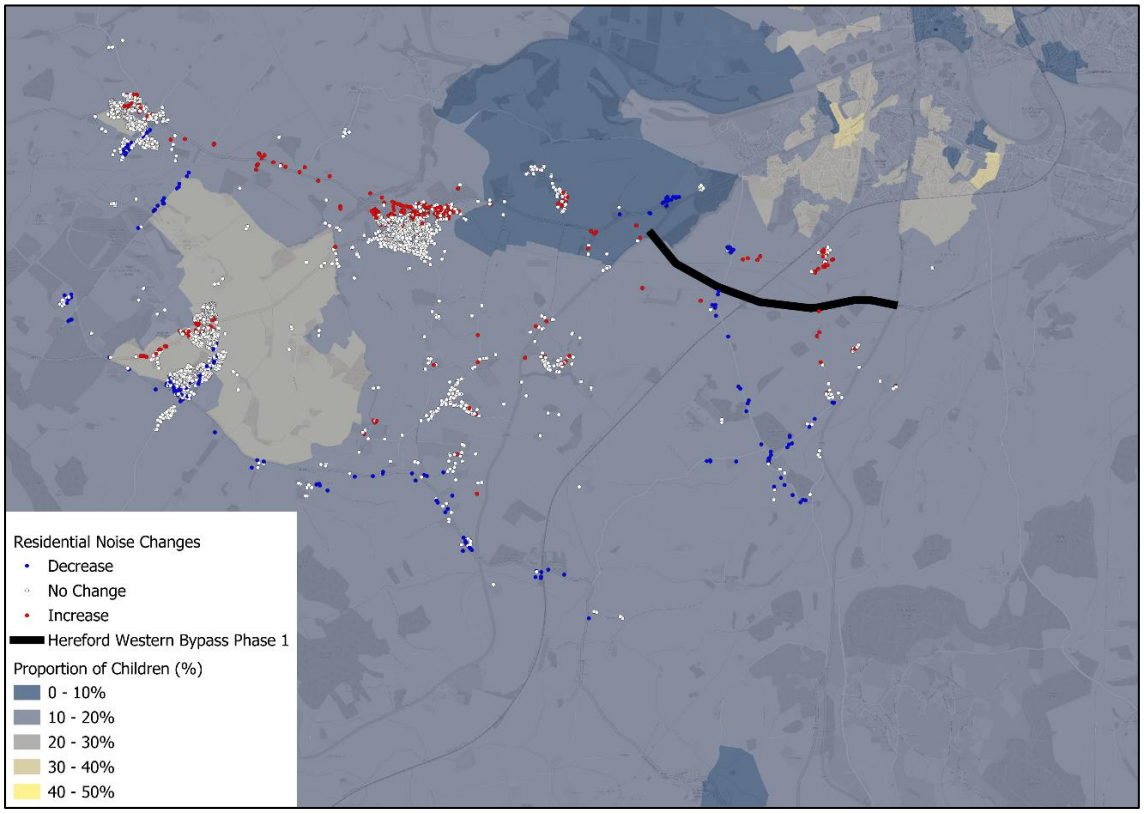


Figure 3-6: Residential Noise Changes and Older Proportion (2043 Day)

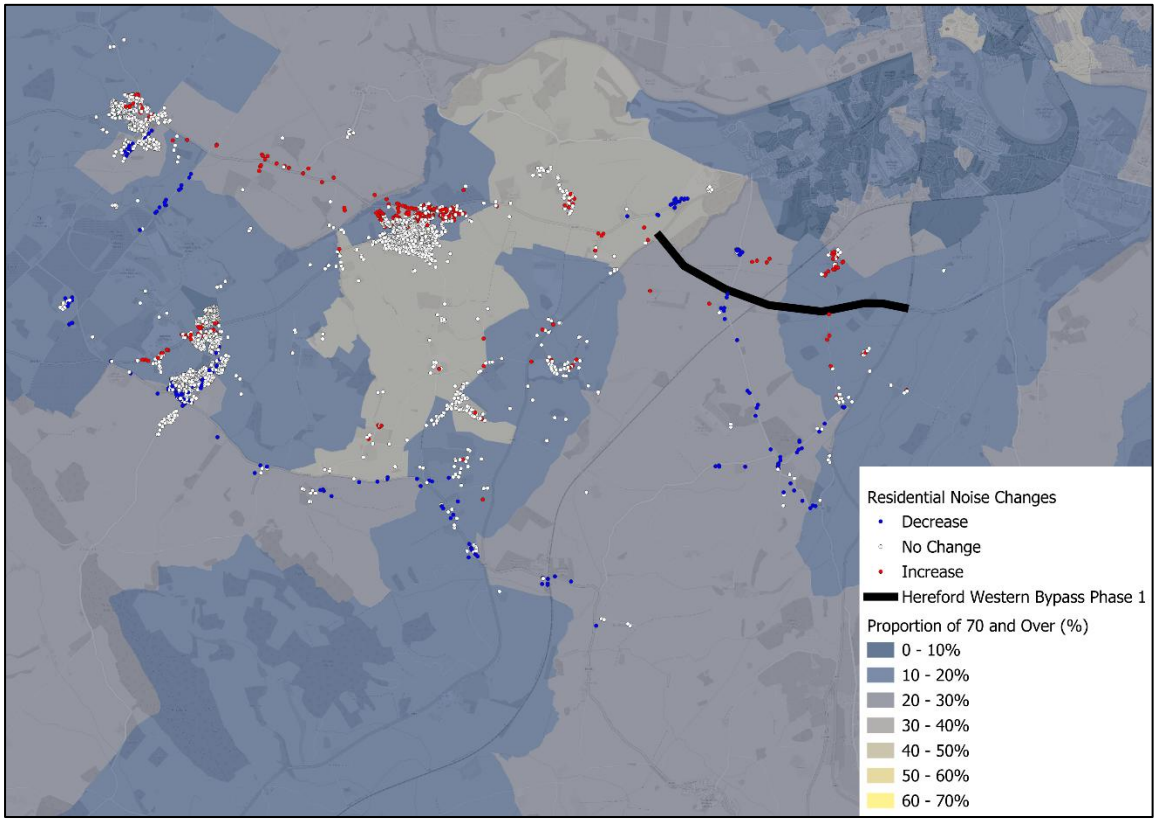


Table 3.4: Impact of Night-time Noise on the Population by Vulnerable Group (2043)

	Vulnerable Group		
	Children	**Older**	**Total**
Population with increased noise	26	33	161
Population with decreased noise	41	61	269
Population with no change in noise	887	932	4,892
Net winners	15	28	108
Percentage of net winners/losers	14%	26%	
Percentage of Population	18%	19%	
Assessment	✓✓	✓✓✓	

Figure 3-7: Residential Noise Changes and Child Proportion (2043 Night)

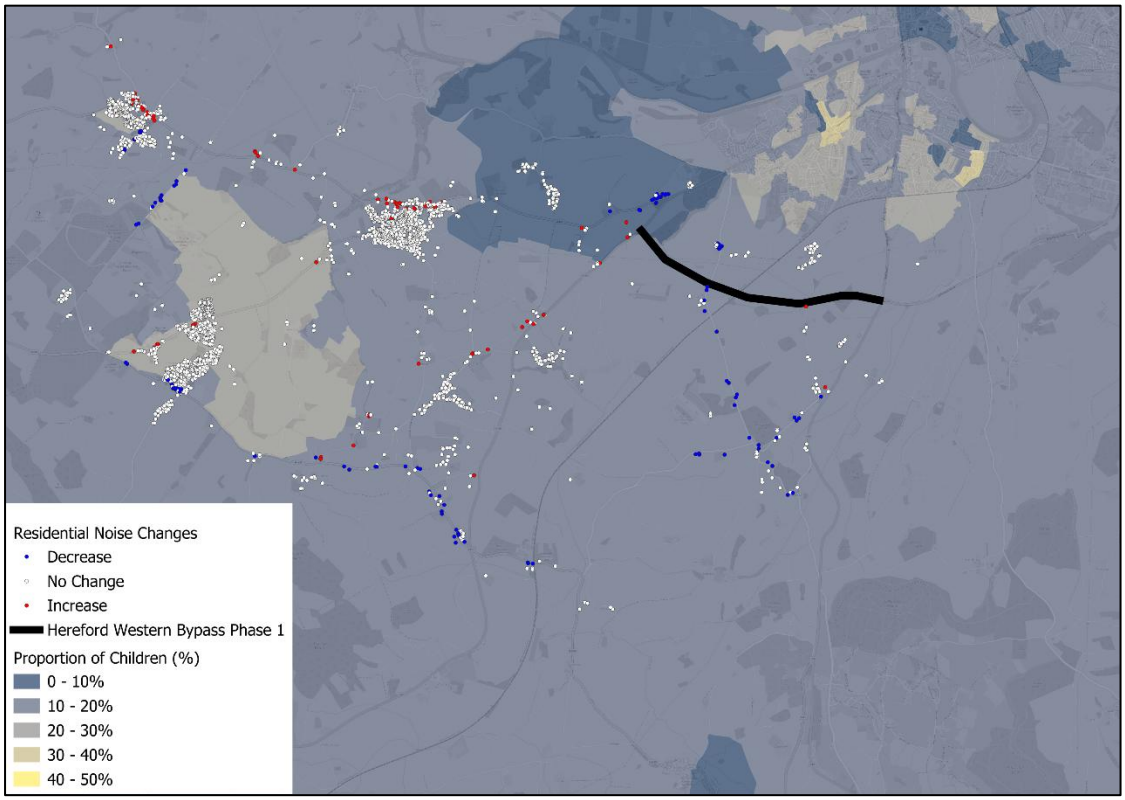
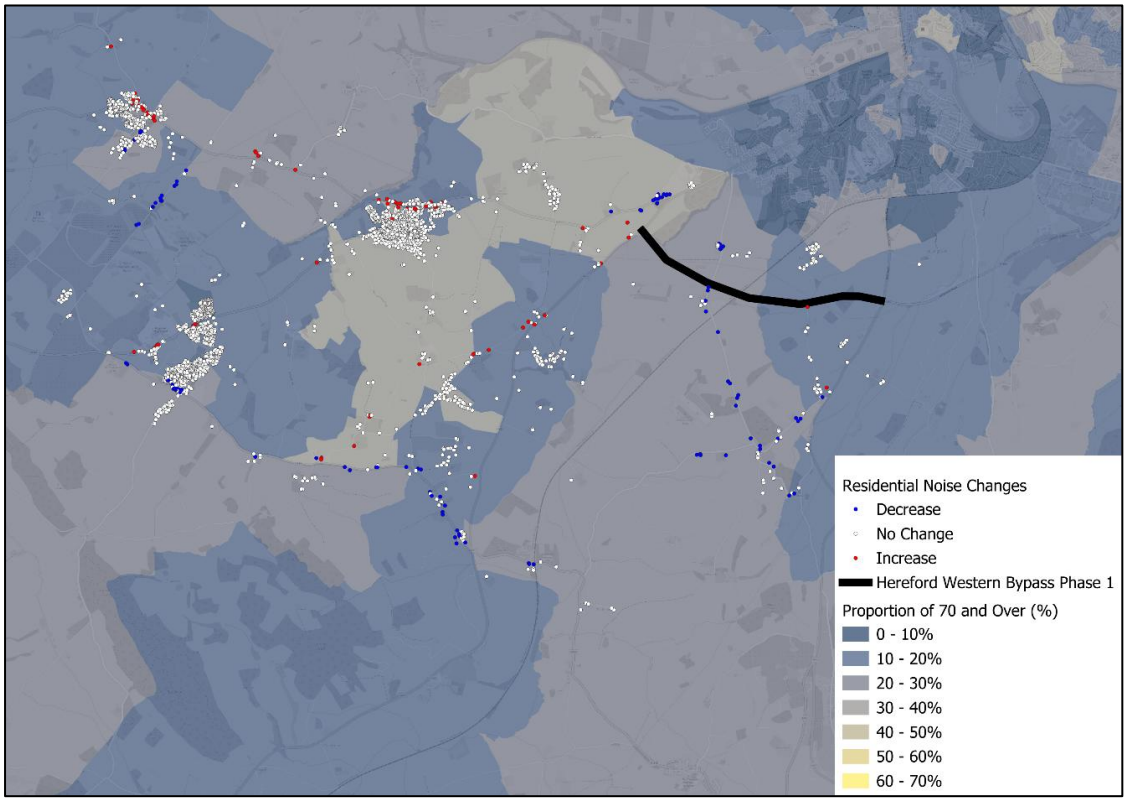


Figure 3-8: Residential Noise Changes and Older Proportion (2043 Night)



3.9 Noise Impacts at Sensitive Locations

3.9.1 Sensitive non-residential locations are places where people may congregate during the day such as schools, health centres, community centres and religious sites. At the non-residential sensitive locations listed in **Table 3.5**[6] and shown in **Figure 3-9**, noise impacts in the design year are forecast to be negligible (i.e. less than 3dB change). The assessment for noise impacts at sensitive locations is considered neutral.

Table 3.5: Non-residential Locations Considered for Noise Impact Assessment

Building	Daytime		
	2043 Without Scheme	2043 With Scheme	2043 Change
Kes Nursey, Kingstone High School, Kingstone, Hereford, HR2 9HJ	41.2	41.6	0.4
Madley Tennis Club, Madley, Hereford, HR2 9LU	42	41.3	-0.7
Down On The Farm Nursery School, Norton Brook Farm, Grafton, Hereford, HR2 8ED	45.4	45.8	0.4
Travelodge, Grafton, Hereford HR2 8ED	47.1	48.1	1
Kingstone And Thruxton Primary School, Kingstone, Hereford, HR2 9HJ	51	51.9	0.9
Madley Primary School, Madley, Hereford, HR2 9PH	51.1	51.9	0.8
St Marys Church, Madley, Hereford, HR2 9LS	53	53.9	0.9
Madley Village Hall, Madley, Hereford, HR2 9PH	62.5	63.3	0.8
Methodist Church, Madley, Hereford, HR2 9LU	56.9	54.7	-2.2
Kingstone Village Hall, Green Lane, Kingstone, Hereford, HR2 9EX	45.2	43.5	-1.7
St Michael And All Angels Church, Kingstone, Hereford, HR2 9ET	46.6	45.4	-1.2
Kingstone High School, Kingstone, Hereford, HR2 9HJ	42.7	43.5	0.8
Little Acorns Nursery, Cooks Lane, Kingstone, Hereford, HR2 9EY	42.2	40.9	-1.3

[6] Happy Nursery Days Childcare is not an active company and is discounted from the appraisal.

Building	Daytime		
	2043 Without Scheme	2043 With Scheme	2043 Change
St. Bartholomew's Church, Thruxton, Hereford, HR2 9AX	49.8	48.6	-1.2
The Coop, Arkstone Court, Clehonger Hereford, HR2 9TR	40.7	41	0.3
Clehonger Parish Hall, Birch Hill Road, Clehonger, Hereford, HR2 9RD	55.1	56.4	1.3
Clehonger Church Of England Primary School, Gosmore Road, Clehonger, Hereford, HR2 9SN	42.3	43.6	1.3
St Andrews Church, Allensmore Village Road, Allensmore, Hereford, HR2 9AH	42.3	43.2	0.9
Pateshall Village Hall, Tram Inn, Allensmore, Hereford, HR2 9AF	48.7	49.4	0.7
All Saints Church, Church Road, Clehonger, Hereford, HR2 9SE	42.1	43	0.9
Belmont Abbey Parish Centre, Ruckhall Lane, Belmont, Hereford, HR2 9RZ	52.9	52.7	-0.2
Playing Field and Pavillion, Clehonger, Hereford, HR2 9RZ	42.9	42.5	-0.4
Callow Parish Hall, Old Callow, Callow, Hereford, HR2 8DD	61.3	59.2	-2.1
St Marys Church, Callow, Hereford, HR2 8DD	57.2	55.2	-2
St Peters Church, Bullingham Lane, Hereford, HR2 8EB	49.8	50.8	1
Slim Trading Company Ltd, Unit 1, Dene Industrial Estate, Kingstone, Hereford, HR2 9NP	43.1	43	-0.1
Kingstone Surgery, Kingstone, Hereford, HR2 9HN	52.9	54.1	1.2
Happy Nursery Days Childcare, Merry Cottage, Grafton Lane, Grafton, Hereford, HR2 8BL[6]	*48.1*	*50.7*	*2.6*

Figure 3-9: Non-residential Locations Considered for Noise Impact Assessment



4. Distributional Impacts of Air Quality

4.1.1 Children are considered more at risk from air pollution given that they tend to spend more time outside and therefore have the longest exposure. An assessment of impacts against income levels is also required as there is a link between low income and areas of poor air quality such as housing close to main roads.

4.2 Screening of Air Quality

4.2.1 Air quality impacts are likely to occur when an intervention results in changes to traffic flows or speeds. Both are happening in the case of the proposed scheme, and its impacts on the vulnerable group of people were assessed.

4.3 Assessment and Appraisal of Air Quality

4.3.1 The distributional analysis of the air quality impacts was carried out using an assessment of NO_2 and $PM_{2.5}$ concentrations. To analyse the distributional impacts of air quality, it is necessary to identify the number of households within 200m of affected links on the road network. The affected road network links are those that see a change in traffic flows and/or speeds and/or proportion of HGVs (based on criteria set out in TAG Unit A4.2) because of the scheme. In total 2,437 affected residential receptors were identified.

4.3.2 The SEISA deprivation index was used to split the population by income. The area covered by the air quality modelling is relatively small relative to LSOA geography and the more granular SEISA data at OA scale is at a more suitable scale to derive variations in air quality impact by income.

4.3.3 The forecast number of people experiencing changes in air quality (at an accuracy of 0.1 $\mu g/m^3$) was then defined by income quintile.

4.3.4 The air quality distributional impacts analysis was carried out separately for particulate matter and NO_2, as there are different speed-emission relationships for these pollutants.

4.4 Appraisal Methodology

Plan-Level Calculations

4.4.1 The plan level TAG appraisal provides an indication of the overall change in operational air quality associated with the proposed scheme.

4.4.2 The plan level methodology as per LA105 within TAG (Unit A3, Section 3: Air Quality Impacts) aims to quantify the change in exposure at properties in the opening year as a result of schemes, through the quantification of exposure for all local affected roads. The methodology follows a number of steps including:

- identification of the affected road network (ARN), which is the same as the Design Manual for Roads and Bridges (DMRB) HA207/07 (Volume 11, Section 3, Part 1) local air quality affected road network;
- quantification of the number of properties within 0-50m, 50-100m, 100-150m and 150-200m bands, from the affected roads;
- calculation of concentrations within each band at 20m, 70m, 115m and 175m from the road centreline using the DMRB spreadsheet tool;
- calculation of property weighted NO_2 and $PM_{2.5}$ concentrations;
- calculation of the total numbers of properties that improve, worsen and stay the same for each pollutant; and

- calculation of an overall assessment score for NO_2 and $PM_{2.5}$.

4.4.3 An overall positive score indicates an overall worsening and an overall negative score indicates an overall improvement in air quality.

4.5 $PM_{2.5}$ Impacts by Income Deprivation

4.5.1 Table 4.1 and Figure 4-1 show the $PM_{2.5}$ impacts, whether positive, negative or neutral, in each of the five SEISA income groups. The net winners / losers total for each group is presented as a percentage of the total net winners / losers across all income groups. This is then compared with the percentage of affected population in each of the income groups.

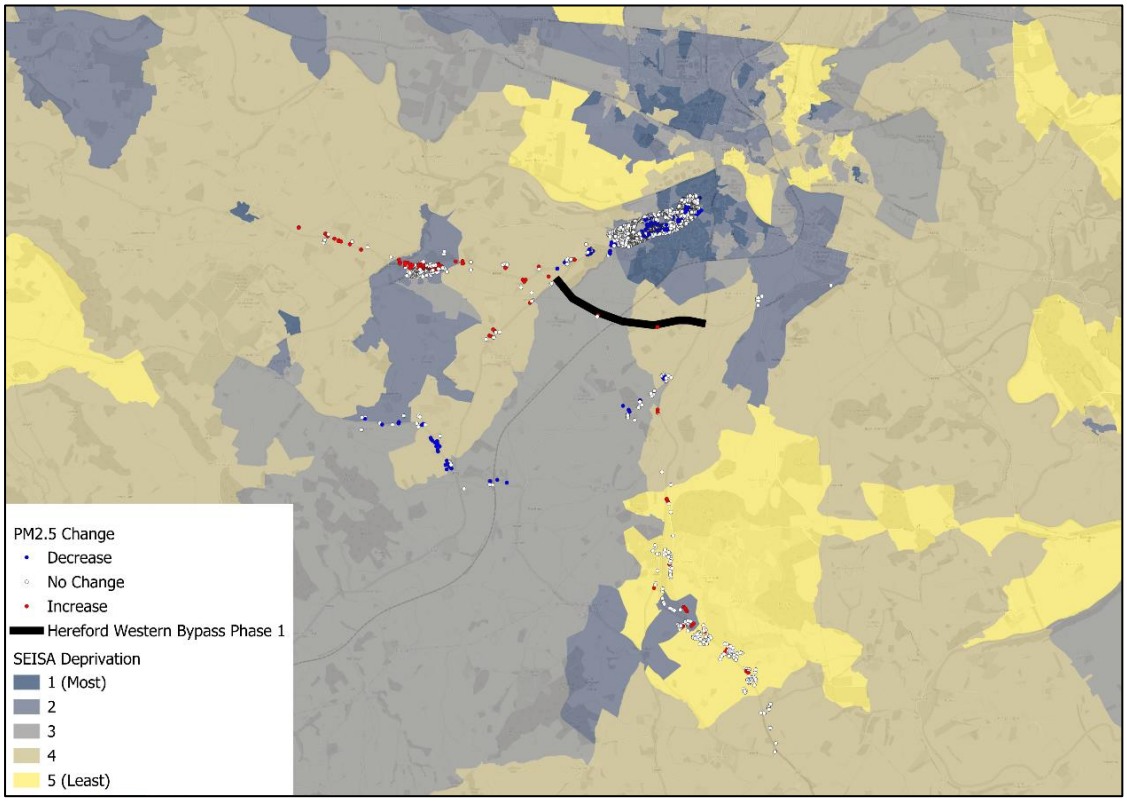
4.5.2 The assessment for 2043, representing the design year shows a beneficial overall impact, indicating a decrease in $PM_{2.5}$ pollution impacts with the scheme. However, most households experience no change in $PM_{2.5}$. The impacts that are present are unevenly distributed across the income groups.

4.5.3 The lowest income group has large beneficial impacts. This is due to a decrease in traffic on the A465 Belmont Road in South Wye. Group two has slight adverse impacts, mainly due to an increase in $PM_{2.5}$ on the B4349 at Clehonger village. Groups three and four have large beneficial and moderate beneficial impacts respectively. These are due to decreases in $PM_{2.5}$ around Belmont Road and some of the routes through Tram Inn and Callow. The moderate adverse impact for group five is due to an increase in traffic and $PM_{2.5}$ on the A49 around Much Birch.

Table 4.1: Distributional Impacts of $PM_{2.5}$ by Income Band (2043)

	Income Quintile					
	1 (Low)	**2**	**3**	**4**	**5 (High)**	**Total**
Population with increased $PM_{2.5}$	0	96	6	30	10	142
Population with decreased $PM_{2.5}$	186	88	72	37	0	383
Population with no change in $PM_{2.5}$	682	700	256	140	134	1,912
Net winners	186	-8	66	7	-10	241
Percentage of net winners/losers	77%	-3%	27%	3%	-4%	
Percentage of Population	36%	36%	14%	8%	6%	
Assessment	✓✓✓	✖	✓✓✓	✓✓	✖✖	

Figure 4-1: $PM_{2.5}$ Change by Household and Deprivation Levels (2043)



4.6 NO_2 Impacts by Income Group

4.6.1 **Table** 4.2 and **Figure 4-2** show the forecast NO_2 impacts in each of the five SEISA income groups. The net winners / losers for each income group are presented as a percentage of the total net winners / losers and compared to the population of the five income groups.

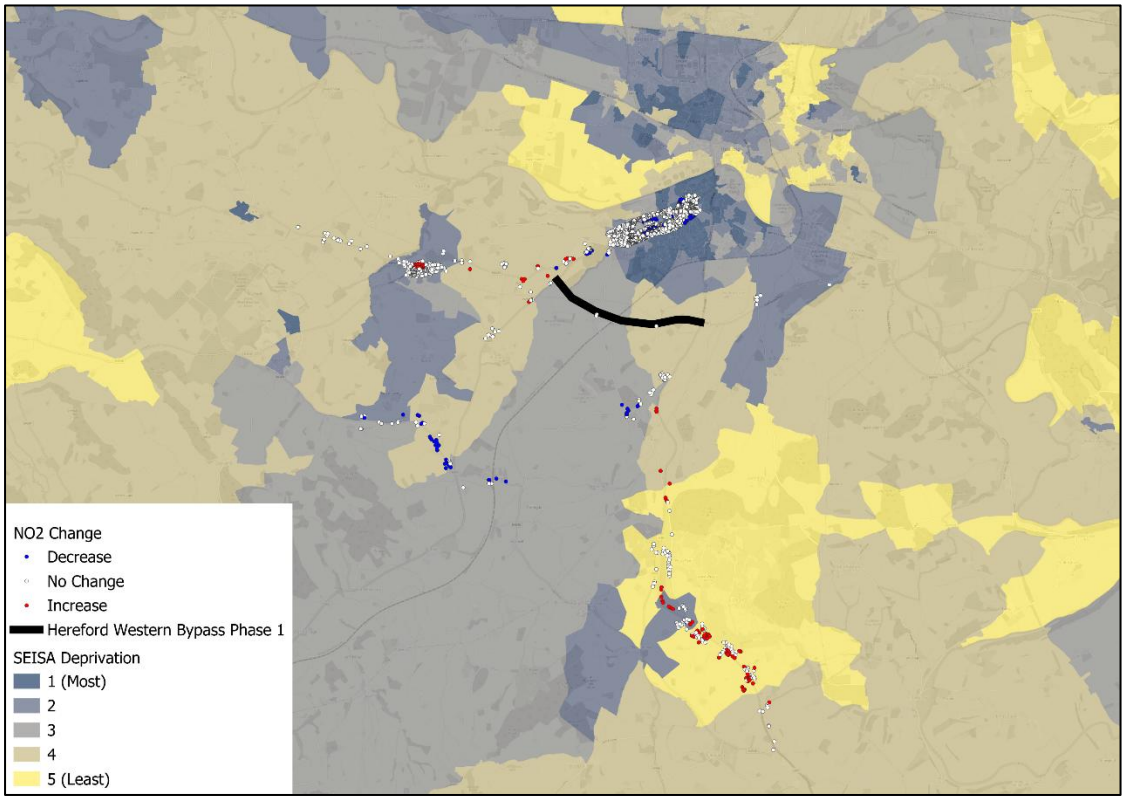
4.6.2 The assessment for 2043, representing the design year, is beneficial overall. However, most households experience no change in NO_2. The affected locations are broadly similar to those observed for $PM_{2.5}$ (4.5.3); however, the different dispersion of NO_2 means that there are fewer affected households near the B4349 in Clehonger Village making the group two assessment of impacts slight beneficial and more affected households near the A49 at Much Birch making the group five assessment of impact large adverse.

Table 4.2: Distributional Impacts of NO_2 on Population by Income Band (2043)

	Income Quintile					
	1 (Low)	**2**	**3**	**4**	**5 (High)**	**Total**
Population with increased NO_2	0	36	0	16	56	108
Population with decreased NO_2	103	51	49	28	0	231
Population with no change in NO_2	765	797	285	163	88	2,098
Net winners	103	15	49	12	-56	123
Percentage of net winners/losers	84%	12%	40%	10%	-46%	

Percentage of Population	36%	36%	14%	8%	6%	
Assessment	✓✓✓	✓	✓✓✓	✓✓	✖✖✖	

Figure 4-2: NO_2 Change by Household and Deprivation Levels (2043)



4.7 Air Quality Impact on Vulnerable Groups

4.7.1 The vulnerable group for air quality impacts is defined as Children, on the basis that they may spend more time outdoors. Impacts at residential locations are calculated in the same way as for income bands, comparing the proportion of net winners/losers to the proportion of the affected population for each group. 'Adult' results are not required to be reported but are included in the calculation.

4.7.2 The proportions of the population that are Children that are used for assessment are derived from the 2021 Census.

4.7.3 For both $PM_{2.5}$, shown in Table 4.3 and Figure 4-3, and NO_2, shown in Table 4.4 and Figure 4-4, impacts are beneficial and proportionate. Most Children do not experience a change in air quality.

Table 4.3: $PM_{2.5}$ Impacts for Children (2043)

	Vulnerable Group	Adults
	Children	
Population with increased $PM_{2.5}$	54	273
Population with decreased $PM_{2.5}$	181	700
Population with no change in $PM_{2.5}$	871	3,527
Net winners	127	427
Percentage of net winners/losers	23%	77%

Percentage of Population	20%	80%
Assessment	✓✓	-

Figure 4-3: $PM_{2.5}$ Change by Household and Proportion of Children (2043)

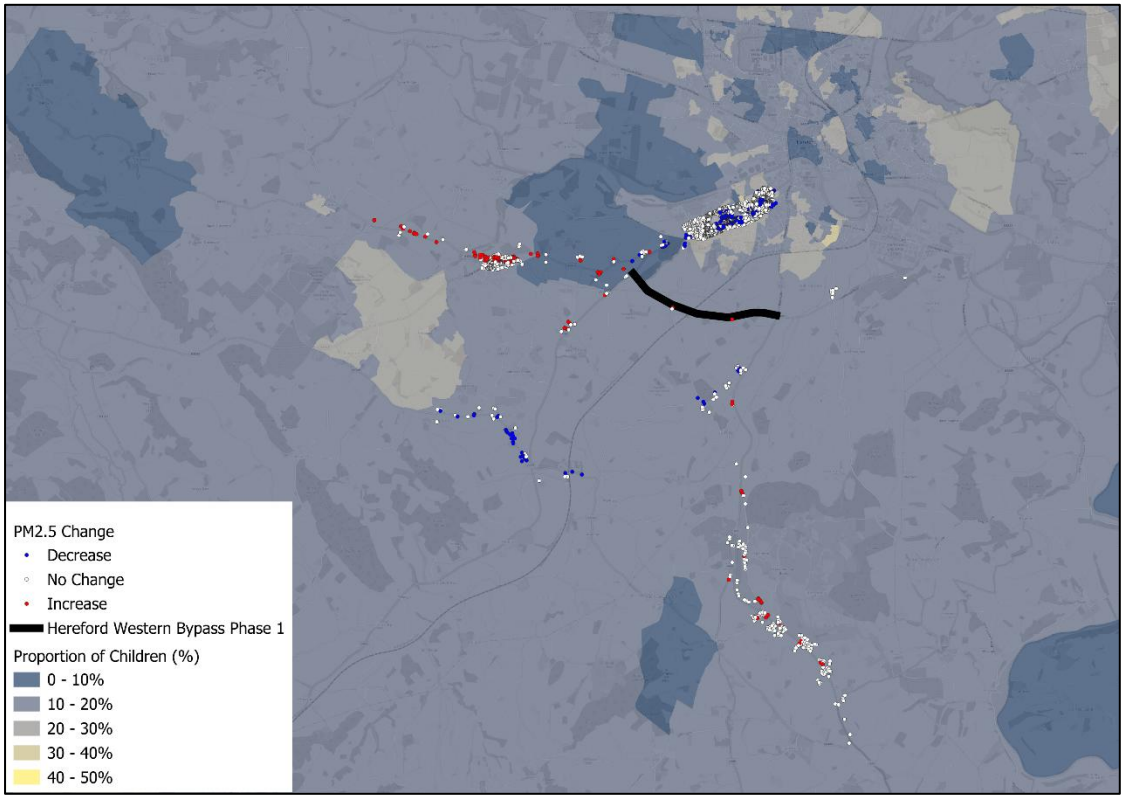


Table 4.4: NO_2 Impacts for Children (2043)

	Vulnerable Group	Adults
	Children	
Population with increased NO_2	41	207
Population with decreased NO_2	99	432
Population with no change in NO_2	966	3,859
Net winners	58	225
Percentage of net winners/losers	20%	80%
Percentage of Population	20%	80%
Assessment	✓✓	-

Figure 4-4: NO_2 Change by Non-Residential and Proportion of Children (2043)



4.8 Air Quality Impacts on Sensitive Receptors

4.8.1 Local air quality modelling was carried out for affected non-residential receptors for the scheme opening and design years, 2028 and 2043. These are locations at which people may congregate during the day such as schools, medical centres, hospitals and churches.

4.8.2 Most locations have imperceptible $PM_{2.5}$ changes. All others are small, at the minimum perceptible value of 0.1. These are mostly decreases which are located within the city. The two minimal increases are in Clehonger and Much Birch.

4.8.3 For all except one location (St Mary's and Thomas a Becket Church, Much Birch) the forecast NO2 change shown in Table 4.6 is imperceptible.

Table 4.5: Non-residential Sensitive Receptors (2043 $PM_{2.5}$)

	2043 $PM_{2.5}$			
	Without Scheme Scenario PM_{10} **(µg/m³)**	**With Scheme Scenario** PM_{10} **(µg/m³)**	**Difference** PM_{10} **(µg/m³)**	**Magnitude of Impact**
Belmont Community Centre	5.9	5.8	-0.1	Small
Belmont Abbey Parish Centre	5	4.9	-0.1	Small
Wye Valley Manufacturing	6.8	6.8	<0.1	Imperceptible
Much Birch C of E Primary School	5.1	5.1	<0.1	Imperceptible
Much Birch Community Hall	5	5	<0.1	Imperceptible
Clehonger Village Hall	5	5	<0.1	Imperceptible
Pateshall Village Hall	4.9	4.9	<0.1	Imperceptible
Clehonger Primary School	4.8	4.8	<0.1	Imperceptible
Hunderton Scouts	5.6	5.6	<0.1	Imperceptible
Coppin Rise Park	5.9	5.8	-0.1	Small
Woodward Avenue Park	5.5	5.4	-0.1	Small
Blackmarston Road Park	5.5	5.5	<0.1	Imperceptible
Blackmarston Road Park Centre	5.4	5.4	<0.1	Imperceptible
Our Lady Queen of Martyrs Church	5.7	5.6	-0.1	Small
Clehonger Recreation Ground Park	4.8	4.8	<0.1	Imperceptible
Clehonger Recreation Ground	4.8	4.9	0.1	Small
Toros Football Club	5.3	5.2	-0.1	Small
Belmont Abbey	5	4.9	-0.1	Small
Belmont Wanderers Football Club	5.7	5.6	-0.1	Small
Belmont Haywood Country Park	5	5	<0.1	Imperceptible
Kenilworth Close Playground	5	5	<0.1	Imperceptible
Northolme Road Playground	5.4	5.4	<0.1	Imperceptible
St Junabius Church	5.1	5.1	<0.1	Imperceptible
St Mary and St Thomas a Becket Church	5.2	5.3	0.1	Small

Table 4.6: Non-residential Sensitive Receptors (2043 NO_2)

	2043 NO_2			
	Without Scheme Scenario NO_2 **(µg/m³)**	**With Scheme Scenario** NO_2 **(µg/m³)**	**Difference** NO_2 **(µg/m³)**	**Magnitude of Impact**
Belmont Community Centre	3.6	3.6	<0.1	Imperceptible
Belmont Abbey Parish Centre	2.8	2.8	<0.1	Imperceptible
Wye Valley Manufacturing	4.8	4.8	<0.1	Imperceptible
Much Birch C of E Primary School	2.8	2.8	<0.1	Imperceptible
Much Birch Community Hall	2.6	2.6	<0.1	Imperceptible
Clehonger Village Hall	2.5	2.5	<0.1	Imperceptible
Pateshall Village Hall	2.4	2.4	<0.1	Imperceptible
Clehonger Primary School	2.4	2.4	<0.1	Imperceptible
Hunderton Scouts	3.6	3.5	-0.1	Imperceptible
Coppin Rise Park	3.6	3.6	<0.1	Imperceptible
Woodward Avenue Park	3.3	3.3	<0.1	Imperceptible
Blackmarston Road Park	3.3	3.3	<0.1	Imperceptible
Blackmarston Road Park Centre	3.3	3.3	<0.1	Imperceptible
Our Lady Queen of Martyrs Church	3.6	3.6	<0.1	Imperceptible
Clehonger Recreation Ground Park	2.4	2.4	<0.1	Imperceptible
Clehonger Recreation Ground	2.4	2.4	<0.1	Imperceptible
Toros Football Club	2.9	2.9	<0.1	Imperceptible
Belmont Abbey	2.8	2.8	<0.1	Imperceptible
Belmont Wanderers Football Club	3.3	3.3	<0.1	Imperceptible
Belmont Haywood Country Park	2.7	2.7	<0.1	Imperceptible
Kenilworth Close Playground	2.8	2.8	<0.1	Imperceptible
Northolme Road Playground	3.3	3.3	<0.1	Imperceptible
St Junabius Church	2.6	2.6	<0.1	Imperceptible
St Mary and St Thomas a Becket Church	2.7	2.8	0.1	Small

Figure 4-5: PM2.5 Change at Non-residential Sensitive Receptors and Deprivation

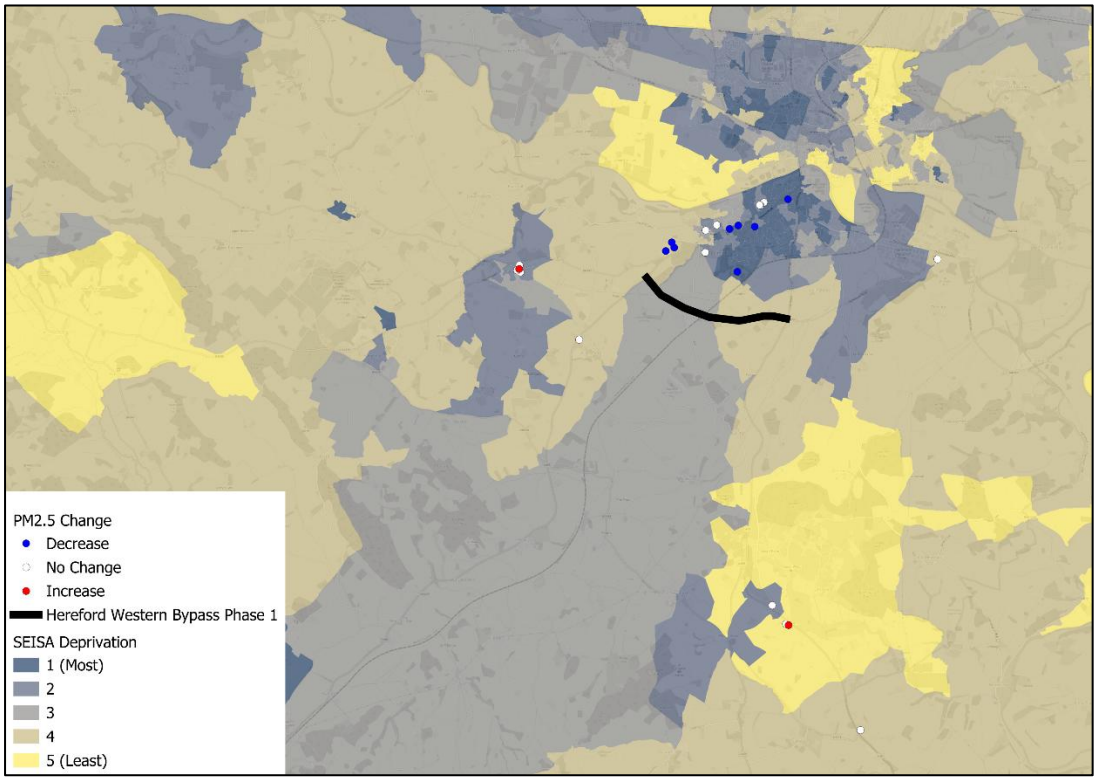
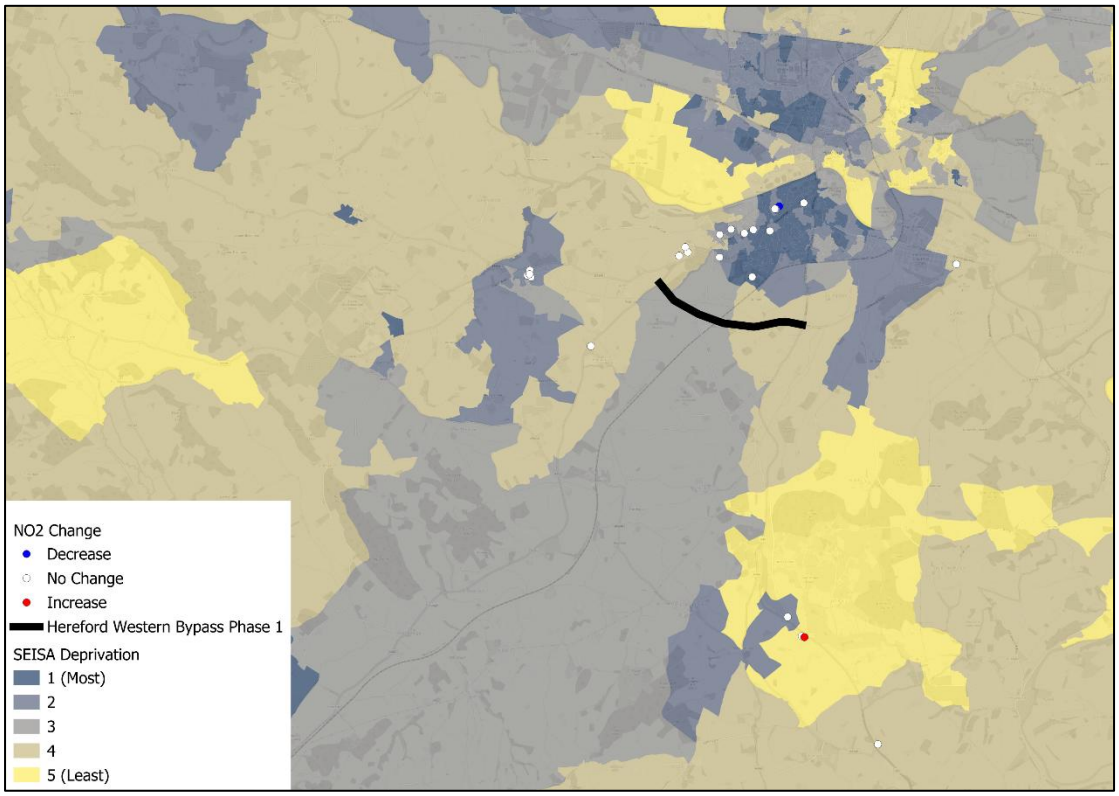


Figure 4-6: NO2 Change at Non-residential Sensitive Receptors and Deprivation



5. Distributional Impacts of Accidents

5.1.1 Most transport-related accidents occur on the road network so they should be considered in the assessment of a proposed road scheme. Groups living in the area that are vulnerable to accidents are children and older people, often as pedestrians. Vulnerable road users include pedestrians, cyclists and motorcyclists; and, specifically, young male drivers. Chapter 2 of TAG Unit A4.1 describes the methodology for undertaking accident impact assessments.

5.2 Screening of Accidents

5.2.1 TAG Unit A4.2 states that the screening process for the accident assessment should consider whether there is "any change in alignment of transport corridor (or road layout) that may have positive or negative safety impacts, or any links with significant changes in vehicle flow, speed, %HGV content or any significant change (>10%) in the number of pedestrians, cyclists or motorcyclists using road network".

5.2.2 The scheme will create a change in the alignment of the transport corridor through the construction of a new road. The scheme will result in changes in traffic patterns, as people will utilise different roads because of the scheme. This will affect accidents by increasing and decreasing traffic on existing roads and moving some traffic onto the new road which is likely to be more suitable and safer for the traffic it attracts than the existing roads in residential areas of South Wye and rural roads south of Hereford.

5.2.3 The SATURN traffic models were used to identify the links experiencing significant changes in traffic conditions, including link-level traffic volume (measure in passenger car units (PCUs)) and the percentage changes in vehicle flows, HGV flows and speeds between the with-scheme and without-scheme models for the 2043 forecast year. These also show changes in flow, speed and %HGV that meet screening criteria for assessment and appraisal. This analysis was used to define the Area of Impact for accident appraisal.

5.3 Assessment and Appraisal of Accidents

5.3.1 Collision and casualty data from within Herefordshire were extracted from the STATS19 dataset to analyse the impact of accidents on vulnerable groups. Data from the years 2018 to 2024 were used, excluding 2020 and 2021 because of change in travel patterns during the COVID-19 pandemic.

5.3.2 The analysis was disaggregated into the area of impact and the urban and rural sub areas within the area of impact to see the distribution of vulnerable group casualties within Herefordshire and within the AoI and how these relate.

5.3.3 The collision and casualty data was grouped by road type, covering A roads and B roads combined, and Unclassified (U) roads. A and B roads represent the roads between villages in rural areas and the through routes in Hereford. The Unclassified roads represent minor rural roads and residential roads in the villages and Hereford.

5.3.4 Accident blackspots within the AoI were identified using mapping of the casualty data.

5.3.5 The sensitive groups that were analysed were Children, Older People, Pedestrians, Cyclists, Motorcyclists and Young Male Drivers. These groups are not mutually exclusive; for example, Children and Older People groups also represent a proportion of pedestrians.

5.3.6 **Figure 5-1** shows the absolute total flow change in 2043 AM and 2043 PM models (AM inner, PM outer) on links that meet at least one of the criteria for inclusion in the accidents

assessment. These are the links used in the accident appraisal. The LSOAs which contain these links form the accidents area of Impact.

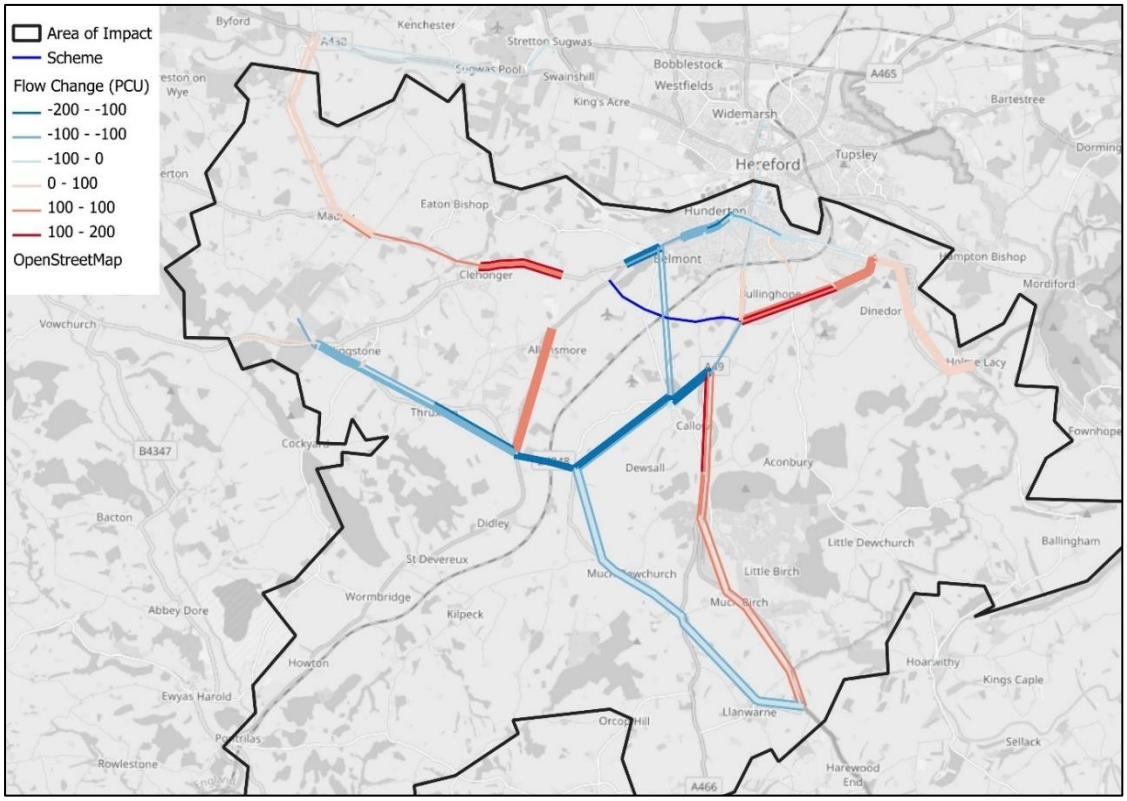
5.3.7 Forecast flow changes show a decrease in flow on routes which form indirect west-east connections parallel to the scheme – routes through:

- A465 Locks Garage turn, Tram Inn and Callow;
- Haywood Lane and Portway; and
- A465, Belmont Road and Walnut Tree Avenue.

5.3.8 Holme Lacy Road also has a decrease in flow; however, this route is currently subject to significant safety improvements as part of a separate scheme and as such is not considered explicitly in this appraisal. It is likely that the Phase 1 scheme will further improve safety on Holme Lacy Road due to a reduction in vehicle flow and a reduction in HGVs.

5.3.9 Forecast flow increases occur on roads which are directly linked to the Phase 1 scheme on routes for which the scheme represents a direct west-east link. With the scheme in place, traffic from the B4349 and the A465 to the west and the B4399 Rotherwas link road and the A49 to the east use the scheme in preference to the indirect routes listed above (5.3.7).

Figure 5-1: Accident AoI Vehicle Flow Changes (PCU) for 2043



5.3.10 Table 5.1 shows the total number of casualties within Herefordshire. The table also shows show vulnerable group casualties as a proportion of total casualties. Around three quarters of casualties are recorded at accidents involving an A or B road. For all roads, each of the vulnerable groups represents around 10% of total casualties.

5.3.11 **Table** 5.2 shows the same analysis of casualties for the AoI. Similarly, around three quarters of casualties are recorded at accidents involving an A or B road. While the proportions are within +_5% of the county proportions for all roads there is some variation by road type.

5.3.12 The AoI is a mixture of urban and rural areas. At county level over 70% of casualties occur in rural areas. In the AoI under 60% of casualties occur in rural areas. This suggests a difference in casualty occurrence in the AoI compared to the Herefordshire. To examine this the AoI results are split into urban (Table 5.1) and rural (Table 5.2) areas. The results in Table 5.3 and Table 5.4 show that the distribution of vulnerable group casualties is like Herefordshire in the rural area with differences in proportion of 5% or less. For the urban area there are a greater proportion of Child and Cyclist group casualties and a smaller proportion of Older group casualties.

5.3.13 This reflects differences in population and travel characteristics in the two areas. In South Wye, there is a relatively young population, schools and a higher proportion of no-car available households, linked to the relatively high deprivation in the area. Conversely the older population is more affluent and more prevalent in the rural areas. Journeys are more likely to be by walking or cycling in South Wye due to the short distances and greater proportion of no-car households.

5.3.14 This difference in travel is reflected in the child casualties in the county. In rural areas the majority (80%) are as passengers as journeys are longer and typically made by vehicle. In urban areas Child casualties are split evenly between Drivers or Riders (cyclists), Passengers and Pedestrians.

5.3.15 The notably high proportion of Cyclist group casualties in the urban AoI (39%) on unclassified roads reflects a significant proportion (12/21) on Holme Lacy Road and the Straight Mile, particularly at the Hoarwithy Road Junction. Holme Lacy Road, particularly the Hoarwithy Road junction, is being significantly upgraded to improve safety as part of another scheme. For this analysis, it is assumed that the safety issue at this location is mitigated by the other scheme. Nevertheless, propensity to cycle is assumed to be higher in the city of Hereford than in rural areas.

Table 5.1: Casualties by Vulnerable Group and Road Class within Herefordshire

		Vulnerable Group Casualties					
Herefordshire	**All Casualties**	**Children**	**Older**	**Pedestrian**	**Motorcyclist**	**Cyclist**	**Young Male Drivers**
A or B Roads	1,691	132	233	113	172	113	190
Unclassified	491	62	55	76	49	70	79
All Roads	2,182	194	288	189	221	183	269
A or B Roads		8%	14%	7%	10%	7%	11%
Unclassified		13%	11%	15%	10%	14%	16%
All Roads		9%	13%	9%	10%	8%	12%

Table 5.2: Casualties by Vulnerable Group and Road Class within the AoI

Herefordshire	All Casualties	Vulnerable Group Casualties					
		Children	Older	Pedestrian	Motorcyclist	Cyclist	Young Male Drivers
A or B Roads	255	37	22	14	30	19	23
Unclassified	86	12	4	6	6	23	18
All Roads	341	49	26	20	36	42	41
A or B Roads		15%	9%	5%	12%	7%	9%
Unclassified		14%	5%	7%	7%	27%	21%
All Roads		14%	8%	6%	11%	12%	12%
Difference from Herefordshire		+5%	-5%	-3%	+1%	+4%	0

Table 5.3: Casualties by Vulnerable Group and Road Class within the Urban AoI

Herefordshire	All Casualties	Vulnerable Group Casualties					
		Children	Older	Pedestrian	Motorcyclist	Cyclist	Young Male Drivers
A or B Roads	89	16	3	7	15	13	9
Unclassified	54	10	2	6	5	21	12
All Roads	143	26	5	13	20	34	21
A or B Roads		18%	3%	8%	17%	15%	10%
Unclassified		19%	4%	11%	9%	39%	22%
All Roads		18%	3%	9%	14%	24%	15%
Difference from Herefordshire		*+9%*	*-10%*	*0%*	*+4%*	*+16%*	*+3%*

Table 5.4: Casualties by Vulnerable Group and Road Class within the Rural AoI

Herefordshire	All Casualties	Vulnerable Group Casualties					
		Children	Older	Pedestrian	Motorcyclist	Cyclist	Young Male Drivers
A or B Roads	166	21	19	7	15	6	14
Unclassified	32	2	2	-	1	2	6
All Roads	198	23	21	7	16	8	20
A or B Roads		13%	11%	4%	9%	4%	8%
Unclassified		6%	6%	0%	3%	6%	19%
All Roads		12%	11%	4%	8%	4%	10%
Difference from Herefordshire		+3%	*-2%*	*-5%*	*-2%*	*-4%*	*-2%*

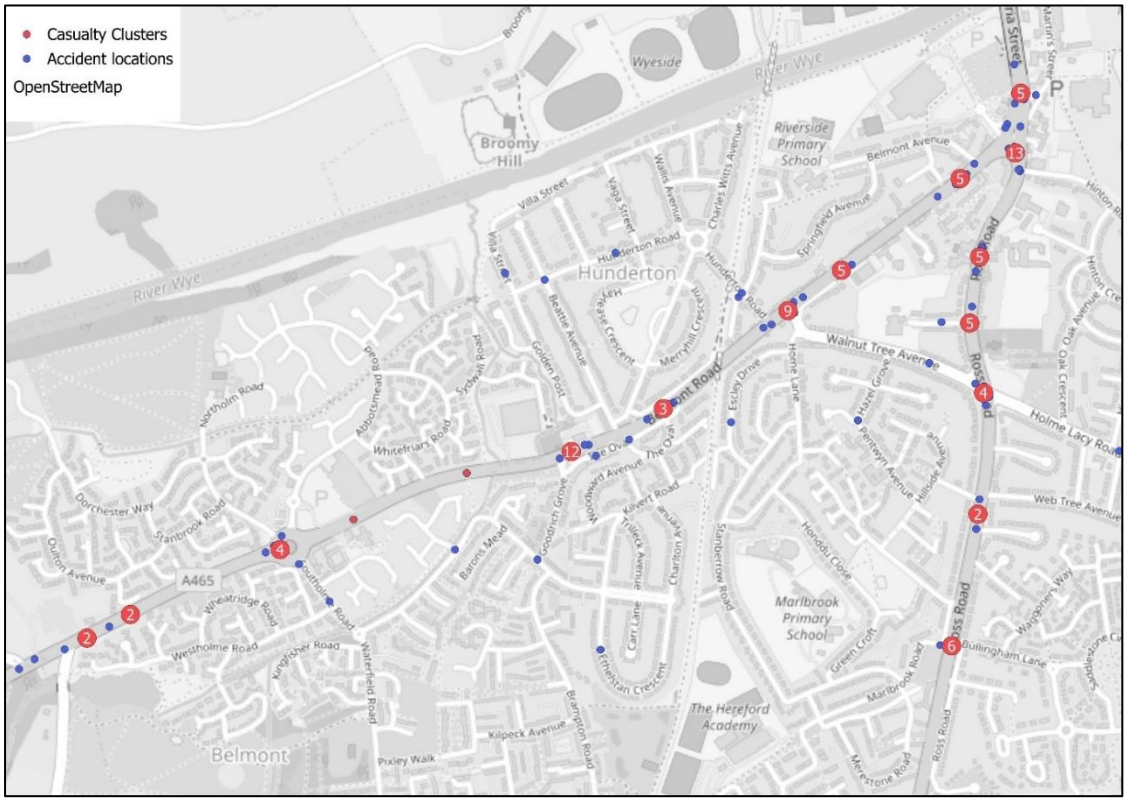
5.3.16 The STATS19 data also provides information about where accidents take place and locations where casualties tend to occur more frequently. As the changes in traffic due to the scheme are dominantly on A and B roads, clusters of locations at which casualties occurred were generated at accidents involving these roads.

5.3.17 **Figure** 5-2 shows the locations of accidents and clusters of casualties in South Wye. Most junctions on the A465 and the A49 have recorded accidents and casualties and there are a smaller number between junctions. The largest clusters of recorded casualties are at the A465-Goodrich Grove junction, the south end of the Asda Roundabout, the A49-Walnut Tree Avenue junction and the A49-Bullingham Lane junction.

5.3.18 There are recent changes in layout at some of these junctions and the Walnut Tree Avenue-A49-Holme Lacy Road junction. The early-2026 introduction of a signalised junction at the new Lidl store on the A465 has reportedly made exit and entry to Goodrich Grove easier as the movement is now not always into or across free-flowing traffic. The right turn onto the A49 from Hinton Road at the south end of the ASDA Roundabout was banned in early 2026. At most times, this was previously a turn into queuing northbound traffic across southbound traffic exiting the roundabout. Traffic formerly using Hinton Road to access the A49 northbound is now forced to use the Holme Lacy Road-A49 junction. Higher traffic flows there are partly mitigated by new more efficient signals as part of the Holme Lacy Road improvements being implemented.

5.3.19 Reducing traffic flows on the A465, Walnut Tree Avenue, the A49 and Holme Lacy Road will tend to reduce accidents at all the locations on these routes. Distributional impacts will be positive for all groups. Children and Cyclists were identified in the casualty and population data as more significant road users in the urban area. Older people were identified and less significant in the urban area. For Children and Cyclists, the accident benefit of the scheme is likely to be moderate beneficial and for all other groups slight beneficial in the urban area.

Figure 5-2: Casualty Clusters in South Wye (Urban AoI)



5.3.20 **Figure 5-3** show the equivalent cluster analysis for the rural part of the AoI. As with the urban area, there are numerous clusters of casualties recorded at junction and a smaller number between junctions. The scheme shifts west-east traffic from relatively small roads onto the Phase 1 link which is a more suitable type of road for the through traffic flows which is beneficial as it should have a lower accident rate than minor roads.

5.3.21 On the A49 south of the Scheme, traffic increases slightly (Figure 5-1); however, many of the affected junctions link to the indirect west-east routes between the A465 and A49 that see less traffic with the scheme. Thie scheme is likely to be beneficial on the indirect west-east routes through Callow, Kivernoll and Portway and at the affected A49 junctions.

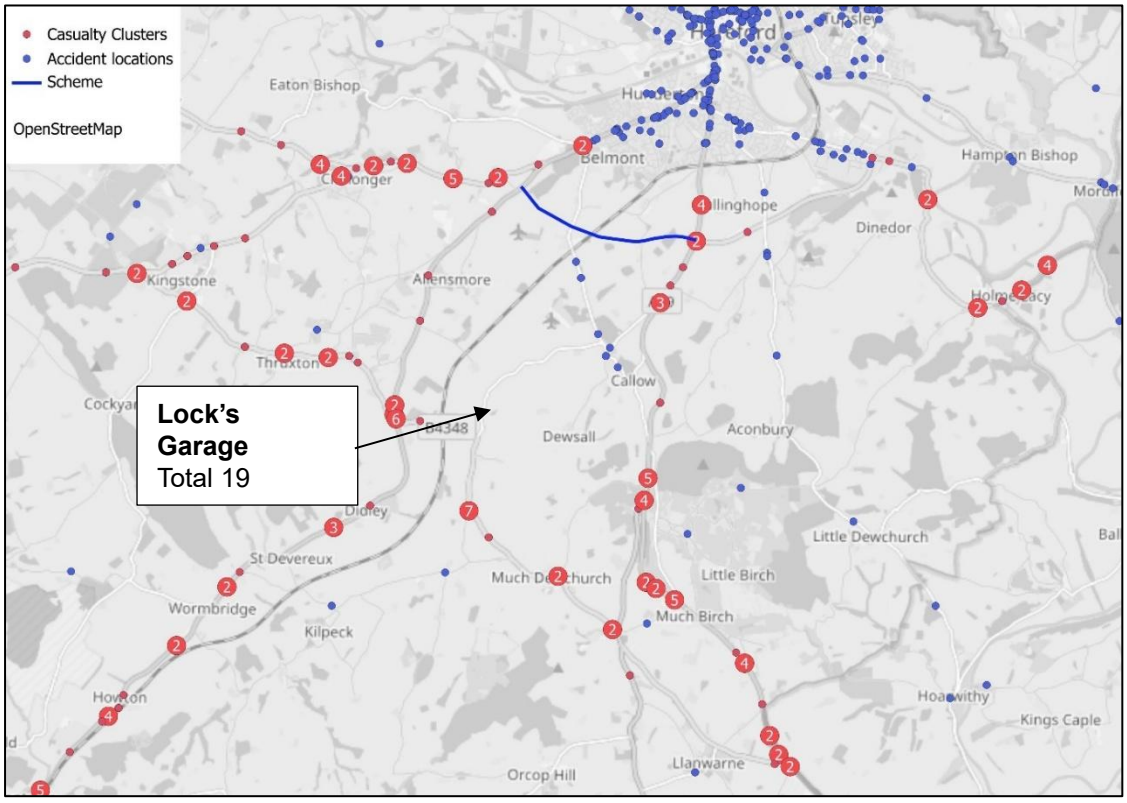
5.3.22 The cluster of 5 casualties on the B4349 east of Clehonger is a single accident. With the scheme in place this section sees an increase in forecast traffic which is adverse; however, there will be improvements to part of the route as a new link to the Phase 1 A465 roundabout will be built.

5.3.23 The largest cluster of casualties in the AoI is at Lock's Garage on the A465 where the B4348 forms an offset crossroads and a garage and shops exist with multiple vehicular accesses. This is a longstanding junction of concern and was modified previously to try and mitigate conflicts between the turning traffic and the A465 traffic.

5.3.24 With the scheme in place there are forecast to be smaller flows crossing the A465 on the B4348 and using the turning to and from the railway crossing at Tram Inn and indirect east-west routes towards the A49. This is a large beneficial impact for vehicular vulnerable groups – Children as Passengers, Older Drivers, Motorcyclists, Young Male Drivers and their Passengers. Casualties are almost all drivers and passengers here.

5.3.25 It is likely that the overall impact is beneficial for vulnerable groups in the rural part of the AoI and there are no concentrations of vulnerable groups in the rural population that are specifically affected.

Figure 5-3: Casualty Clusters in Affected Rural Areas (Rural AoI)



5.3.26 In the AoI, the accident impact is likely to be beneficial due to the redistribution of traffic from congested main roads in South Wye and less-suitable minor rural roads to the Phase 1 link. The observed proportions of casualties in the AoI are like that observed in Herefordshire as a whole, except for Children, Cyclists and Older people in South Wye. This is due to a younger population in South Wye and a higher propensity to cycle.

5.3.27 For Children and Cyclists there is a moderate beneficial impact due to their relatively high proportion of casualties in South Wye where the impact is beneficial. For all other groups there is a slight beneficial impact.

6. Distributional Impacts of Security

6.1.1 Women, teenagers, older people, people with disabilities and Black and Minority Ethnic communities tend to perceive risk more acutely when walking and using public transport. This can lead to anxiety which would ultimately stop these people from using a service. Therefore, it is important to consider the impact in personal security when making an intervention on the transport system.

6.2 Screening of Security

6.2.1 TAG Unit A4.2 states that the screening process for the security assessment should consider “any change in public transport waiting/interchange facilities including pedestrian access expected to affect user perceptions of personal security”.

6.2.2 Within the AoI, the only public transport waiting/interchange facilities are bus stops. The majority are unaffected by the scheme.

6.2.3 The only change identified is at Abbey Cottages Bus Stops on the B4349 close to the western end of the scheme. These are on a section of the B4349 which will become access only, meaning bus services will no longer be able to access the existing bus stops at this location. It is likely that this bus stop will be replaced by the scheme.

6.2.4 The impact on security is neutral, and further assessment is not required.

7. Distributional Impacts of Accessibility

7.1.1 The appraisal of accessibility focuses on the public transport accessibility aspect of accessing employment, services and local amenities.

7.1.2 Different groups of people are likely to experience the impact of accessibility differently. These groups include young people, older people, disabled people, people from black and minority ethnic communities and carers. It is important to understand their different needs and priorities. This should be undertaken with consideration of local amenities.

7.2 Screening of Accessibility

7.2.1 TAG Unit A4.2 states that the screening process for the assessment of accessibility should consider any “change in services, routeings or timings of current public transport services within the impact area” and a “change to waiting facilities or any indirect impact on accessibility to services”.

7.2.2 The scheme will have little direct impact in terms of the services, routings and timings of public transport services within the impact area. This is because the scheme introduces a new road that does not already serve any existing public transport services.

7.2.3 The only change identified is at Abbey Cottages Bus Stops on the B4349 close to the western end of the scheme. These are on a section of the B4349 which will become access only, meaning bus services will no longer be able to access the existing bus stops at this location.

7.2.4 The impact on accessibility is neutral, and further assessment is not required.

8. Distributional Impacts of Severance

8.1.1 The socio-economic groups that are potentially vulnerable to the effects of severance arising from a transport invention include children, older people, people with disabilities and people without access to a car. These groups may experience increased journey times because of detours, as well as an increased risk through crossing over busy roads or new infrastructure.

8.2 Screening of Severance

8.2.1 TAG Unit A4.2 states that the severance screening process should consider whether the scheme introduces or removes physical barriers to pedestrian movement and whether significant changes in vehicle speed, flow and HGV are introduced by the scheme.

8.2.2 Many of the change in vehicle flows and speeds associated with the scheme are expected to occur on rural A and B class roads, such as the A49, A465 and the B4399. These roads do not currently provide paths alongside them or crossing facilities such as traffic lights or pedestrian crossings. As a result, changes in traffic conditions are unlikely to impede existing pedestrian movement. Within South Wye there are expected to be reductions in traffic flow on the main roads, the A465, the A49, Walnut Tree Avenue and Holme Lacy Road.

8.2.3 The scheme itself may introduce perceived changes to severance where it crosses existing rights of way, where connectivity is maintained as part of the scheme design.

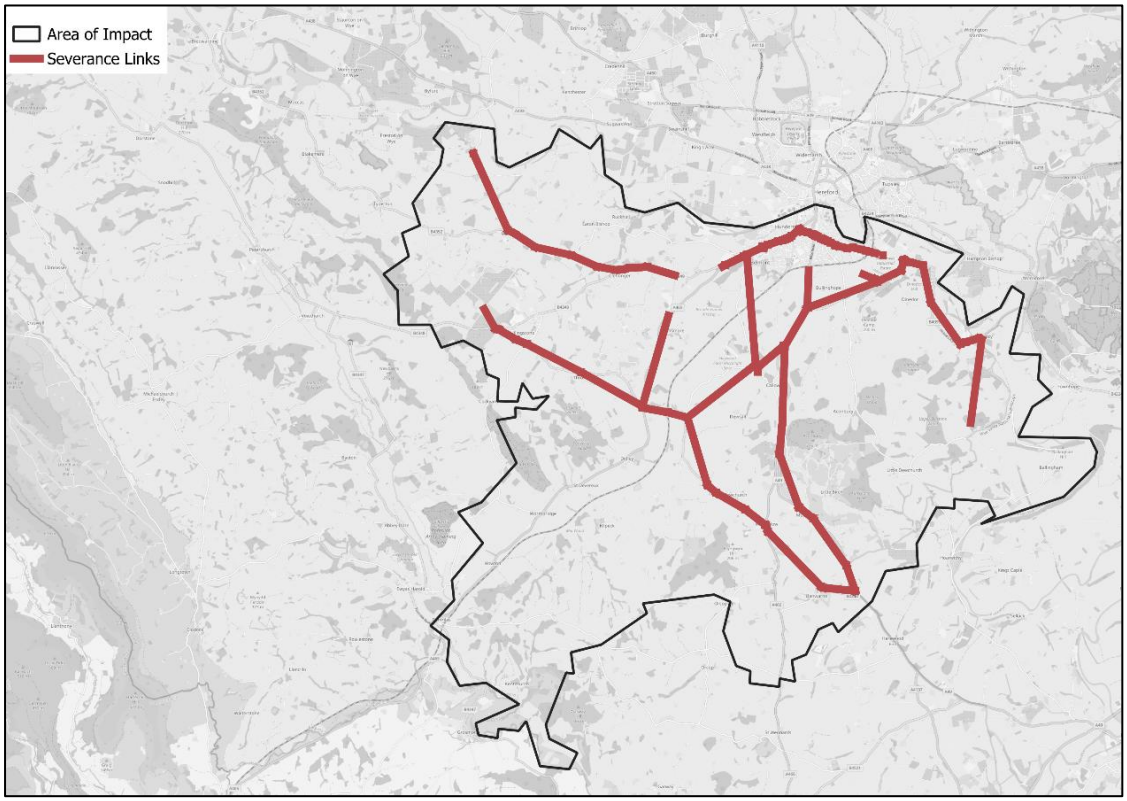
8.3 Assessment and Appraisal of Severance

8.3.1 The Area of Impact for severance was defined using outputs from the SATURN models for the AM and PM peak periods. The models were used to identify the links experiencing significant changes in traffic conditions, including link-level traffic volume (measure in passenger car units (PCUs)) and the percentage changes in vehicle flows, HGV flows and speeds between the current year and the 2043 forecast year.

8.3.2 The bus stops and points of interest were analysed and then filtered across the area of impact to only include bus stops within 400 metres and points of interest within 800 metres of OA centroids and within a 200-metre buffer of the identified severance links. This provided an indication of the zones and segments of the links that would be most affected by the scheme.

8.3.3 **Figure 8-1** shows the links that met the criteria to be analysed for severance. The links that met the criteria fall within the same area of impact defined for the accident analysis, although this does not include a filter for the absolute percentage change in flow. A large proportion of the links that met the criteria were on A or B roads, reflecting the minimum PCU requirement.

Figure 8-1: Links Meeting the Severance Screening Criteria



8.3.4 **Figure** 8-2 shows the links with the bus stops mapped from the Open Street Map data. We can observe that there are many bus stops approaching the centre of Hereford, with a much lower number in the surrounding rural areas. The distribution is expected as the centre of Hereford has a much greater population density and a greater provision of public transport services. In rural area, many bus stops are typically along major A or B roads that connect villages and towns together.

8.3.5 Figure 8-3 show the links with the points of interest (POIs) from Open Street Map data representing amenities. This exhibits a similar pattern to Figure 8.2, with most services concentrated in the urban area near the centre of Hereford. This also shows additional pattern that a large proportion of the points of interest in the rural areas are along the links identified for severance assessment, whereas rural bus stops are evenly distributed across the affected links in the area.

Figure 8-2: OSM Bus Stops and Identified Links for Severance

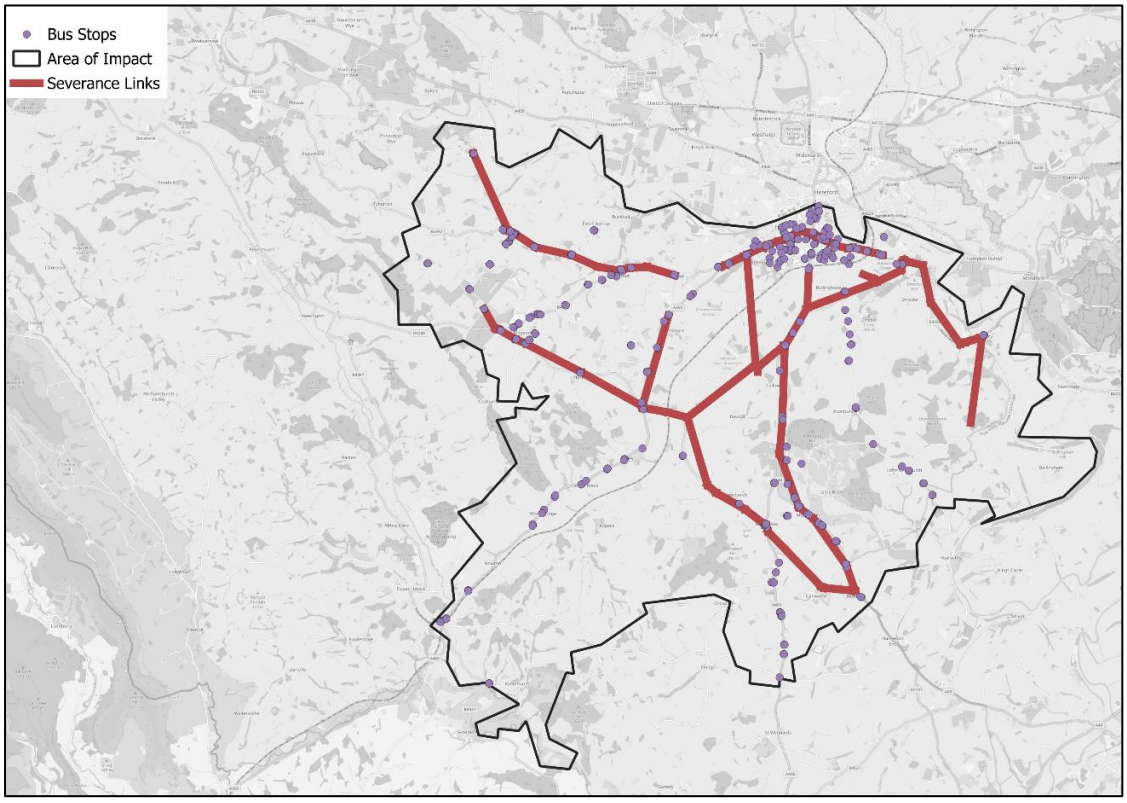
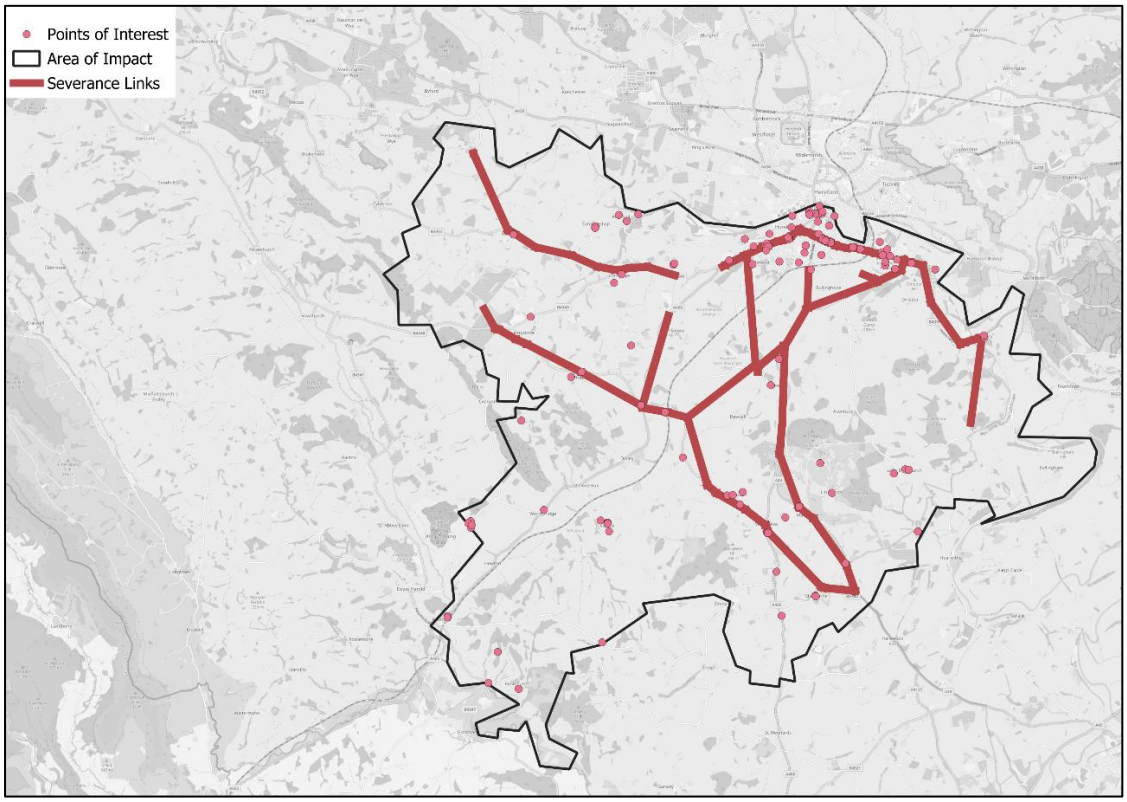


Figure 8-3: OSM Points of Interest and Identified Links for Severance



8.3.6 **Figure 8-4** shows the paths from the Output Area centroids to bus stops that are shorter than 400 metres and lie within 200 metres of the severance links. This shows that there are many paths that meet this criterion at the south of the centre of Hereford, particularly around Belmont and Hunderton, reflecting the high number of OAs and bus stops in these areas

relative to the surrounding rural area. Additional locations meeting this criterion are within small villages such as Madley, Clehonger and Kingstone.

8.3.7 **Figure** 8-5 shows the paths from the centroids of OAs to POIs that are shorter than 800 metres in length and are within 200 metres of the severance links. This generally follows the same pattern as the path to bus stops, with a greater proportion of paths to points of interest at the south of the centre of Hereford. There are also paths to points of interest within the more rural surrounding areas such as Madley, Clehonger and Wormelow, where points of interest that cross the severance links typically include post offices, post boxes and telephone boxes.

Figure 8-4: Zone to Bus Stop Paths Within Buffer of Severance Links

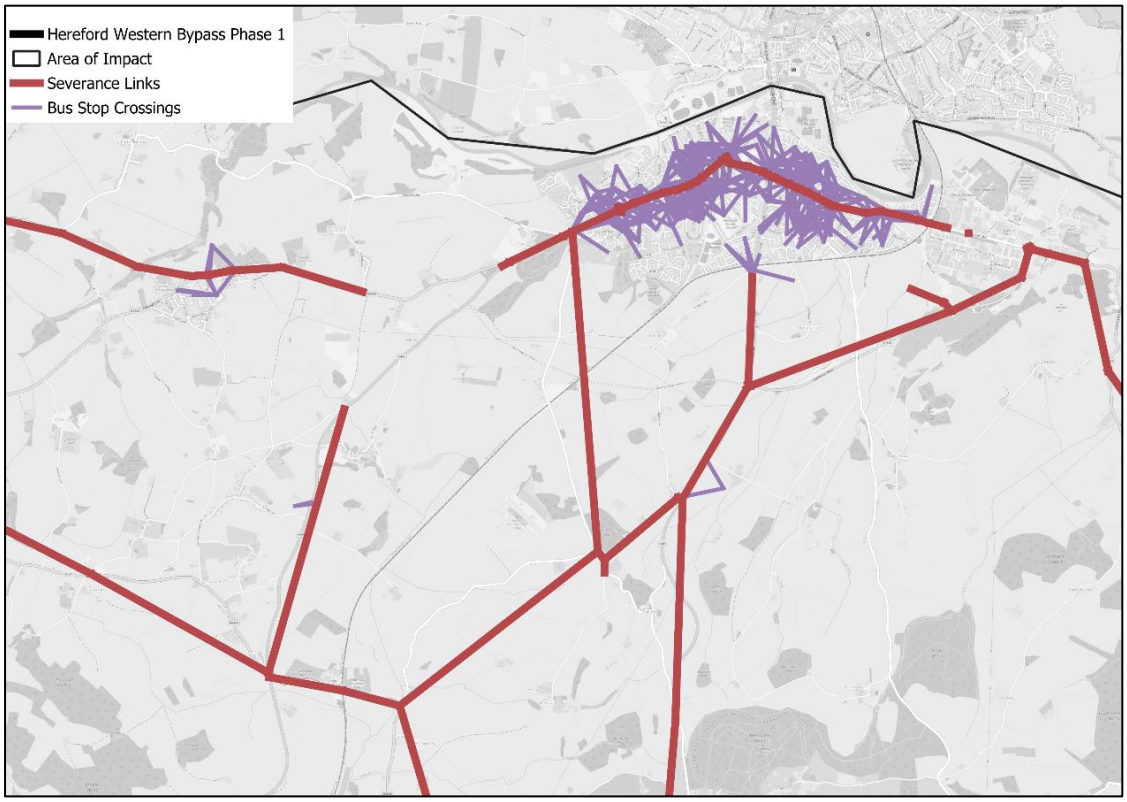
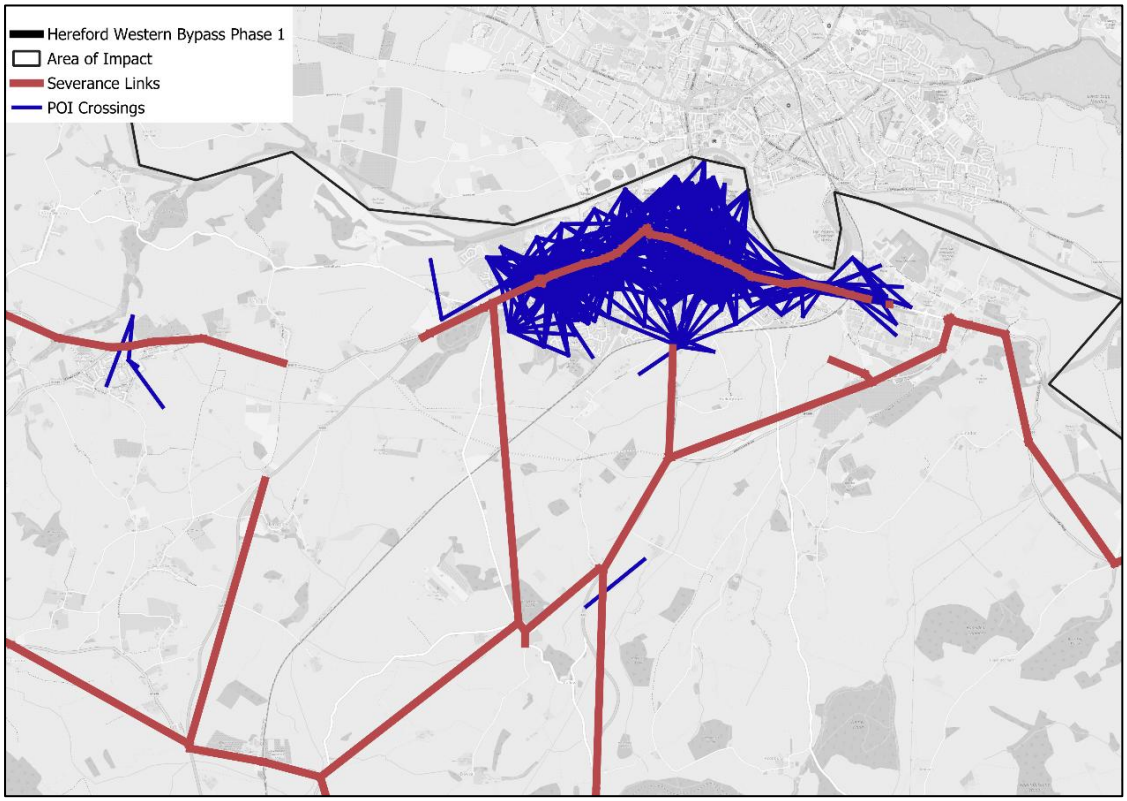


Figure 8-5: Zone to Points of Interest Lines Within Buffer of Severance Links



8.3.8 **Table 8.1** shows the summary of severance appraisal for the area of impact. The values of the number of people affected was obtained by combining the output area level data for each of the output areas along a section of the severance links.

8.3.9 The areas that were scored with a negative value for change in severance were generally along links to the south of the scheme, due to a large proportion of these links experiencing an increase in vehicle flow. These areas typically had an increase in vehicle flow as more vehicles were utilising these links because of the new bypass.

8.3.10 The areas that were scored with a positive value for change in severance were along links that were generally to the north of the scheme or passed into the centre of Hereford, due to many these links experiencing a decrease in vehicle flow. These typically had a decrease in vehicle flow as vehicles no longer needed to enter the centre of Hereford to make west-east journeys.

8.3.11 The A49 north of the scheme was considered to have a neutral change in severance. This is because this area only experienced a slight increase in flow during the AM period and no significant change in flow during the PM period. Overall, these increases in vehicle flow were not considered to not be significant enough to be given a negative score.

8.3.12 The locations with the highest overall effect were along the A465 and Holme Lacy Road north of the scheme. Here the Output Areas are densely populated and small compared to the length of trips being considered. Amenities are more prevalent here, resulting in a larger number of trips being considered and a greater affected population.

8.3.13 The locations with the lowest overall effect were along the A465 and the B4399 Rotherwas Link Road where Output Areas are large relative to the length of trips being considered. These areas had very few output areas along the severance links due to the low population density of these areas, resulting in a much lower number of people affected.

8.3.14 It is worth also noting that each of the groups have a relatively similar number of total people affected, except for a lower number of people within the No Car category. However, we can

see that total overall effect between the groups is disproportion, with Older People having a very low positive effect and the smallest group (No Car) experiencing the highest positive overall effect. This could suggest that in terms of severance the scheme could be disproportionally benefiting certain groups within the area of impact for severance.

8.3.15 The assessed impacts for the groups being considered, based on Table 8.1, are moderate beneficial for the No-Car Available, Young People and Disabled groups and slight beneficial for the Older group. This results from the area with the highest severance change being in South Wye which has a relatively young population, a higher proportion of disabled people (being close to accessible services and amenities) and a relatively high level of deprivation leading to lower car availability.

Table 8.1: Summary of Severance Appraisal by Area

Location	All social groups			No Car			Young People			Older			Disabled		
	Change in severance [A]	No of people affected [B]	Overall effect [A]*[B]	[A]	[B]	[A]*[B]	[A]	[B]	[A]*[B]	[A]	[B]	[A]*[B]	[A]	[B]	[A]*[B]
A465/Belmont Road (Urban)	Positive (+1)	4000	4000	1	900	900	1	800	800	1	500	500	1	700	700
A465/Belmont Road (Rural)	Negative (-1)	600	-600	-1	0	0	-1	100	-100	-1	100	-100	-1	100	-100
Holme Lacy Road (Urban)	Positive (+1)	4000	4000	1	800	800	1	900	900	1	400	400	1	700	700
Holme Lacy Road (Rural)	Negative (-1)	900	-900	-1	100	-100	-1	100	-100	-1	200	-200	-1	100	-100
Gatehouse Road/B4399	Negative (-1)	800	-800	-1	100	-100	-1	100	-100	-1	200	-200	-1	100	-100
A49/Ross Road (Urban)	Neutral (0)	800	0	0	100	0	0	100	0	0	100	0	0	200	0
A49/Ross Road (Rural)	Negative (-1)	2000	-2000	-1	100	-100	-1	200	-200	-1	300	-300	-1	300	-300
B4348	Positive (+1)	3000	3000	1	200	200	1	500	500	1	700	700	1	600	600
B4352/B4349	Negative (-1)	2000	-2000	-1	200	-200	-1	400	-400	-1	600	-600	-1	500	-500
Totals		**18100**	**+4700**		**2500**	**+1400**		**3200**	**+1300**		**3100**	**+200**		**3300**	**+900**

9. Distributional Impacts of Personal Affordability

9.1.1 Personal affordability is concerned with changes in the monetary cost of travel with the introduction of a proposed scheme (TAG Unit A4.2, May 2024). This can include charges such as toll roads and public transport fares but also changes in vehicle operating costs associated with travel.

9.1.2 If an assessment of the impact of the proposed scheme on personal affordability is undertaken, this should consider the impact of the proposed scheme across income groups. If the minimum cost of travel increases, it may impact the ability to travel for those with the lowest incomes.

9.2 Screening

9.2.1 TAG Unit A4.1 states that the screening of personal affordability should consider parking charges, car fuel and non-fuel operating costs, road user charges and the relative availability of public transport.

9.2.2 The scheme makes no changes in parking charges, as it focuses on the development of a new highway, rather than developing changes to existing parking spaces within the area. There are also no changes to road charges as the scheme is not a charged toll road. The availability of public transport is largely set to be unaffected, as the existing bus routes will continue to operate, except a minor modification of the B4349 at bus stop Abbey Cottages.

9.2.3 There are routes for which the scheme could result in a reduction of journey time while simultaneously increasing vehicle operating costs through increasing distance travelled. One such example could occur for passenger travelling between Hereford Enterprise Zone (Rotherwas) and Belmont Abbey particularly during off-peak periods.

9.2.4 The journey under existing conditions typically involves travel via Holme Lacy Road, Walnut Tree Avenue and southbound along Belmont Road. While this route is relatively short in distance, it involves multiple junctions and section of the urban network, which can result in higher journey times.

9.2.5 With the introduction of the scheme, passengers would have the option to travel along the B4349 Rotherwas link road, the new phase 1 link, and northbound along the A465. This route is expected to offer a faster journey time because of more free-flow conditions and fewer junctions; however, it is longer in the overall distance.

9.3 Assessment and Appraisal

9.3.1 The same TUBA outputs used for the user benefits appraisal were used for the personal affordability appraisal. These are based on the 2043 data only, to derive the pattern of benefits. The full 60-year appraisal will have significantly larger values.

9.3.2 The personal affordability benefits calculated by TUBA are filtered to only include trips which have home location inside the Area of Impact (Herefordshire). The non-business trips, namely ‘commuting’ trips and ‘other’ purpose trips have been aggregated by Indices of Deprivation income domain quintile, representing income level. The personal affordability benefits include changes in fuel and non-fuel operating costs and ‘Non-variable costs’ for travel. Benefits relating to changes in indirect taxation and greenhouse gases are excluded from this analysis. The results of the distribution impacts assessment for personal affordability are presented in **Table 9.1** and

9.3.3 Figure 9-1.

9.3.4 The personal affordability forecast from TUBA indicates adverse impacts, disbenefits, for all income groups, which are unevenly distributed across the population. The lowest and highest quintiles have a disproportionately small share of disbenefits and quintile 3 has a disproportionately large share of disbenefits.

9.3.5 The distribution of personal affordability impacts mirrors the user benefits, including time benefits impacts to some extent. The areas to the southwest and east of Hereford which have relatively large beneficial user benefits impacts have relatively larger adverse personal affordability impacts. This is due to faster, but longer, journeys due to the scheme. The increased distance due to the scheme increases vehicle operating costs which are a greater part of the affordability costs. In the user benefits appraisal, the time benefit more than offsets the increased vehicle operating costs of the longer journey.

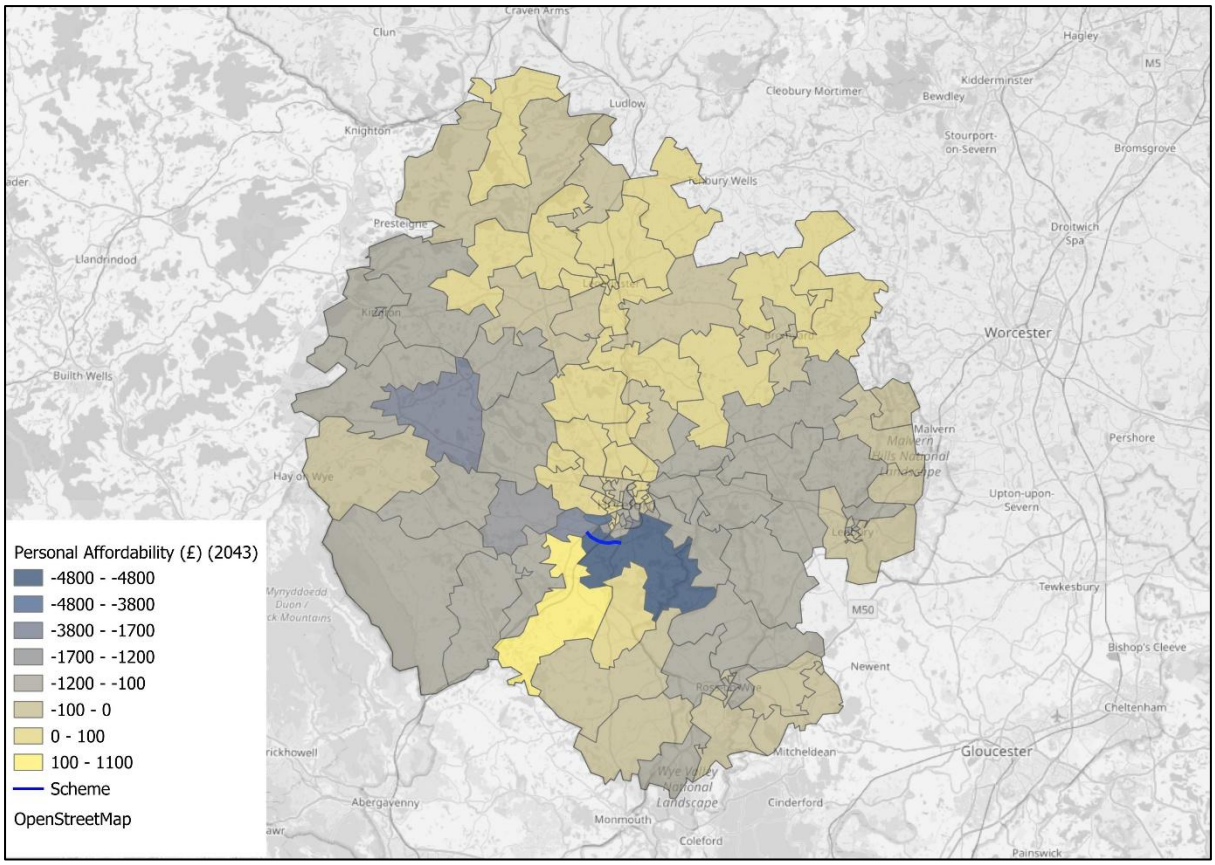
9.3.6 There are also slight beneficial personal affordability impacts for LSOAs along the A465 towards Abergavenny and north of Hereford, indicating slightly smaller vehicle operating costs. This may relate to some journeys encountering less congestion on the A465 and the A49 due to removal of the west-east traffic in South Wye.

Table 9.1: Distributional Impacts of Personal Affordability from TUBA

	Quintile					Total
	1 (Low income)	**2**	**3**	**4**	**5 (High Income)**	
Population	10,876	27,195	62,706	68,018	15,390	184,185
% Population	6%	15%	34%	37%	8%	
Total Benefits	-	-	-	-	-	
Total Disbenefits (£) (2043)	-54	-7,357	-16,050	-15,088	-311	-38,859
% Benefits						
% Disbenefits	0%	19%	41%	39%	1%	
TUBA Assessment[7]	×	××	×××	××	×	

[7] See TAG Unit A4.2 Table 8.

Figure 9-1: Personal Affordability by Lower Super Output Area



9.4 Personal Affordability Worksheet

Mode	Monetary Modal Cost Change	Area	A49 & A465 Corridors	East and West of the Scheme, Hereford Enterprise Zone	Wider Area	Impacts considered in TUBA assessment?	Overall PA Score	Population	6%	15%	34%	37%	8%
		Income Group	All	All				Income group	1	2	3	4	5
		Core Impact						Income Quintile	0-20%	20-40%	40-60%	60-80%	80-100%
Car	Car fuel and non-fuel costs	Changes due to rerouteing and reduced congestion	Reduced congestion in South Wye **Beneficial Impact**	Longer west-east journeys via the Scheme **Adverse Impact**	Negligible monetary impacts	Yes	✖✖		0% ✖	19% ✖✖	41% ✖✖✖	39% ✖✖	1% ✖
	Road user charges	n/a	n/a	n/a	n/a	n/a	-						
	Parking charges - absolute	n/a	n/a	n/a	n/a	n/a	-						
	Parking charges - management	n/a	n/a	n/a	n/a	n/a	-						
	Other Car costs	n/a	n/a	n/a	n/a	n/a	-						
PT	Bus	n/a	n/a	no impact	no impact	No	-						
Active	Walking Cycling	n/a	n/a	n/a	n/a	n/a	-						
Overall Analyst Assessment							✖✖		✖✖	✖✖	✖✖✖	✖✖	✖

10. Output Summary Table

Social group and amenities indicators			User Benefits	Noise	Air Quality	Accidents[8]	Security[9]	Severance	Accessibility[10]	Affordability	Local Authority[11]	England
Resident population in the impact area	Income distribution quintiles	0-20%	6%	11%	36%				-	6%	6%	20%
		20-40%	15%	34%	36%				-	15%	15%	20%
		40-60%	34%	16%	14%				-	34%	34%	20%
		60-80%	39%	39%	8%				-	39%	39%	20%
		80-100%	8%	0%	6%				-	8%	8%	20%
	Children (<16)			18%	20%	13%	-		-		16%	21%
	Young people					21%		10%	-		5%	12%
	Older people			19%		10%	-	17%	-		20%	14%
	People with a disability						-	17%	-		19%	4%
	Black Minority Ethnic						-		-		3%	8%
	No car households							13%	-		14%	25%
	Households with dependent children								-		25%	28%
	Indicator population in the impact area		184,000	5,300	5,600	33,000	-	18,900	-	184,000	184,000	60m
Amenities present within the	Schools / nurseries		✓	✓	✓	-	✓	-	✓	-	-	
	Playgrounds		✓	✓	✓	-	✓	-	✓	-	-	

[8] Accident population is estimated as the population of the OAs forming the accident AoI.
[9] Not assessed
[10] Not assessed
[11] The local authority is Herefordshire.

impact area	Parks and open spaces		✓	✓	✓	-	✓	-	✓	-	-
	Hospitals		✓	✓	✓	-	✓	-	✓	-	-
	Care homes / day centres		✓	✓	✓	-	✓	-	✓	-	-
	Community centre		✓	✓	✓	-	✓	-	✓	-	-

11. DI Appraisal Matrix

	Distributional impact of income deprivation									Are the impacts distributed evenly?	Key impacts - Qualitative statements (example below)
	0-20%						20-40%	40-60%	60-80%	80-100%	
User benefits	✓✓	✓✓	✓✓✓	✓✓	✓	No					Positive benefits are felt by all income groups due to a reduction in journey time with the scheme in place. Benefits favour the middle income group and the highest income group has a disproportionately small share of benefits.
Noise	××	×××	✓✓✓	××	neutral	No					Noise impacts favour those in the middle income group. The affected areas for that group are the indirect west-east routes relieved by the scheme. The highest income group is not represented. All other groups experience noise disbenefits. 80% of the assessed population have no change in daytime noise.
Air quality PM2.5	✓✓✓	×	✓✓✓	✓✓	××	No					PM2.5 impacts favour the most-deprived and middle income group. Due to their location in Southe Wye The second-most and least deprived groups experiences PM2.5 disbenefits. 80% of the assessed population have no change in PM2.5 concentration.
Air quality NO2	✓✓✓	✓	✓✓✓	✓✓	×××	No					NO2 impacts favour the most-deprived and middle income group. Due to their location in Southe Wye The least deprived group experiences NO2 disbenefits. 85% of the assessed population have no change in NO2 concentration.
Affordability	×	××	×××	××	×	No					Affordability disbenefits are felt by all income groups due to longer journeys with the scheme in place. The most- and least-deprived income quintiles have a smaller share of disbenefits and the middle-income group has a larger share of disbenefits compared to population.

Accessibility							Not assessed.

12. AST Entry

AST entry											
	Social groups						User groups				Qualitative statement (including any impact on residential population AND identified amenities)
Impact	Children & young people	Older people	Carers	Women	Disabled	BME	Pedestrians	Cyclists	Motor-cyclists	Young male drivers	
Noise	××	×									Noise changes impact only 20% of the assessed population. Within the affected population slightly more people are affected by increases in noise than decreases.
Air Quality	✓✓										The scheme provides benefits in both NO_2 and $PM_{2.5}$ measures by reducing traffic on routes in residential areas of South Wye.
Accidents	✓✓	✓					✓	✓✓	✓	✓	The scheme provides benefits by reducing traffic in South Wye where Child and Cycling casualties are more prevalent. Population is relatively young and journeys are short and encourage cycling in South Wye. Traffic is also reduced at many junctions on the A49 and A465 that form indirect west-east routes.
Security	-	-		-	-	-					Not Assessed

Severance	✓✓	✓	-		✓✓						Reductions in traffic due to the scheme and amenities accessed on foot are mostly in South Wye. Here the population is younger than rural areas and has better accessibility for disabled people leading to a larger disabled population, both of whom benefit from severance improvements due to less traffic.
Accessibility	-	-	-	-	-	-					Not Assessed

Appendix I – Alternative Mode Assessment

Hereford Western Bypass

Phase One Alternative Mode Assessment

Herefordshire Council

Project number: 60746644

June 2026

Delivering a better world

Quality information

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Revision	Revision date	Details	Authorized	Name	Position
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1. Introduction

1.1 Hereford Western Bypass Overview

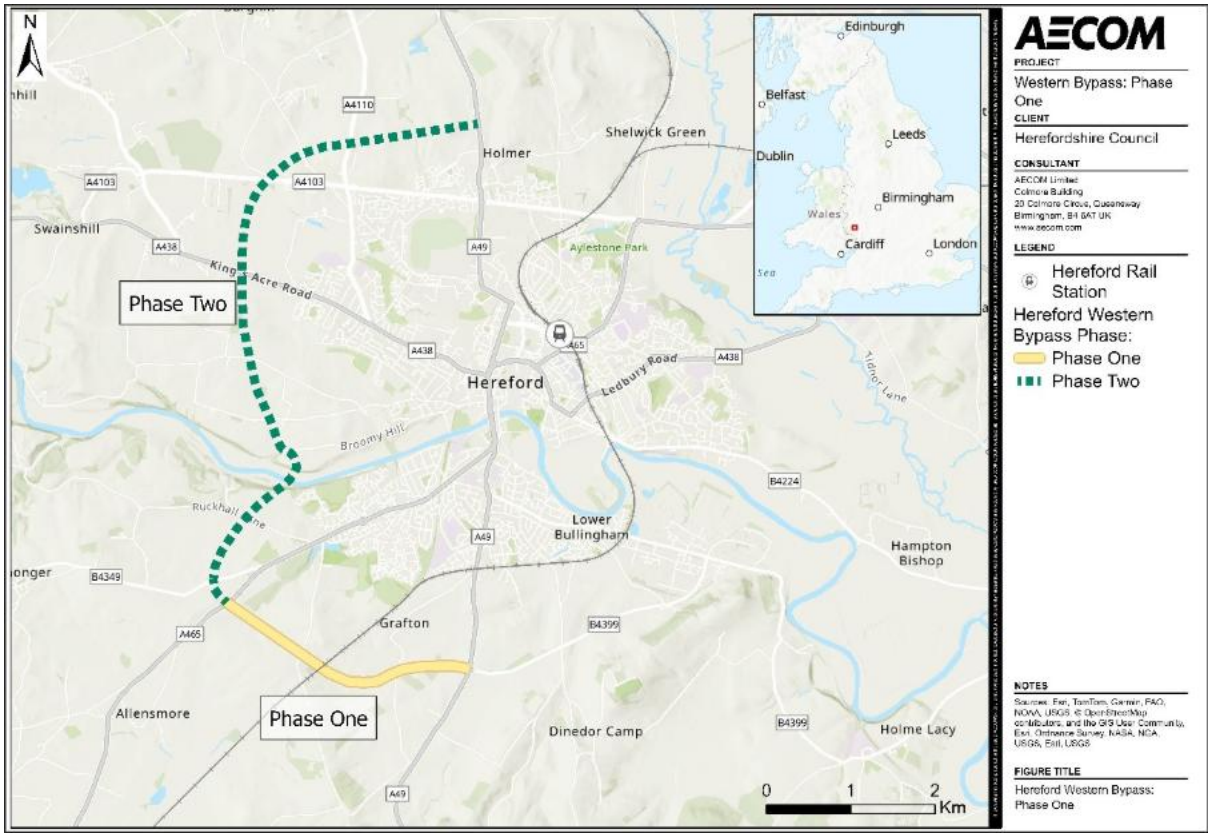
1.1.1 The proposal for a bypass of Hereford was initially developed over 30 years ago in the early 1990s. Since then, various options for both eastern and western alignments (of the city centre) have been considered.

1.1.2 The preference for a western bypass came out of study work conducted between 2010-2013 and was included in the adopted Herefordshire Local Plan Core Strategy 2011-2031, as a key element of the long-term Hereford Transport Strategy (HTS). The scheme was identified in the Local Plan as a strategically important piece of infrastructure in reducing through traffic in the city centre and enabling the delivery of walking, cycling and bus improvements on the existing highway network, whilst helping to facilitate significant growth proposals.

1.1.3 At the same time, the South Wye Transport Package (SWTP) was identified in the Local Transport Plan (LTP) as an important strategy for promoting economic growth within Hereford whilst tackling specific problems in the South Wye area. The SWTP was part of the broader HTS and a key element of the package was the inclusion of a new Southern Link Road (SLR), from the A49 to the A465 (now forming 'Phase One' of the Western Bypass).

1.1.4 The western bypass, shown in Figure 1-1, is made up of two parts: Phase One and Phase Two which connects with Phase One and forms the northern section of the route.

Figure 1-1: Hereford Westen Bypass



1.1.5 The alignment of Phase One is fixed and has the benefit of having full planning permission in place. The alignment of Phase Two is likely to evolve to enable the latest housing and employment land requirements to be accommodated. This will be considered further as part of the development of the Phase Two scheme.

1.1.6 The scope of the scheme is set out below:

- 3.6km rural all-purpose single carriageway
- Links the A465 and A49 in the South Wye area of Herefordshire
- Design speed of 60mph
- Improved access to the Rotherwas Industrial Estate and Hereford Enterprise Zone (herein referred to collectively as HEZ) for the south and west of the city
- Forms a key enabler for the delivery of the full Hereford Western Bypass

1.2 Report Overview

1.2.1 The purpose of this assessment is as follows:

- To provide an understanding of the scheme context and analysis of the travel characteristics in the study area; and
- Identify potential alternative mode solutions that could be considered alongside the bypass.

2. Scheme Context

2.1 Scheme Objectives for Phase One

2.1.1 A series of objectives were identified as part of the SWTP Option Assessment Report (OAR) (2019) for the scheme. These have since been reviewed and adapted to relate solely to Phase One and to ensure they are SMART (Specific, Measurable, Achievable, Relevant and Time-Based). The updated objectives for the scheme are set out in Table 1-1.

Table 1-1: Scheme Objectives

No.	Objective
1	Provide a more direct and reliable route to the HEZ for all users from the south / southwest of Hereford with journey time savings of more than six minutes during peak periods, following completion of the Phase One scheme.
2	Relieve residential route pressures in the South Wye area, particularly along the A465 Belmont Road, Holme Lacy Road and Walnut Tree Avenue, by reducing daily traffic flows by up to 25%, following completion of the scheme.
3	Improve road safety across the South Wye area following completion of the scheme.
4	Reduce the air quality and noise impacts from road transport on key receptors, across South Wye, particularly in the residential Belmont area following completion of the scheme.
5	Support economic growth and business productivity in Hereford through increased inward investment and reduced travel time.
6	Improve social outcomes across the South Wye area by reducing traffic demand and providing an improved environment, following completion of the scheme.

2.2 The role of Phase One of the bypass

Case for Change

2.2.1 As part of the Strategic Dimension, a detailed Case for Change has been developed in support of the Phase One scheme, based on analysis across a number of themes. The following problems and issues have been identified in relation to the study area:

- The need for a more efficient and reliable road network, particularly in the context of high levels of car dependency across rural Herefordshire.
- Limited connectivity to the HEZ, resulting in traffic routeing along inappropriate rural and residential roads to access the site, a key example of this being recent ANPR data showing a key movement being the A465 – Walnut Tree Avenue – Holme Lacy Road.
- Journey time unreliability resulting in potential productivity losses and increased operating cost for commuters and HGVs travelling to the HEZ.

- Clusters of road collisions across the study area and an unattractive environment for active travel.
- Congestion leading to disruptions to the reliability of local bus services in South Wye.
- High traffic flows contributing towards social impacts such as high levels of deprivation identified within South Wye and negative impacts on community cohesion.
- Noise pollution along the A465 in South Wye

The future role of Phase One of the bypass

2.2.2 These challenges reinforce the need for change and support the case for the Phase One scheme to come forward to deliver a range of environmental, safety, traffic, community and economic benefits across Hereford.

2.2.3 The Case for Change has highlighted a large number of benefits that the scheme will bring, including:

- A significant reduction in flows along residential routes including Walnut Tree Avenue, Holme Lacy Road and the A465
- Reduced journey times between the A465 and the HEZ
- A reduction in collisions over the appraisal period
- Improved reliability of bus services along the A465
- Quieter residential streets for encouraging active travel and a more pleasant environment outside of sensitive receptors such as schools in residential areas in Belmont
- Greater community cohesion and quality of life
- Improved access to future housing growth including Lower Bullingham and opportunities for employment growth and inward investment
- Improved air quality and reduced noise along residential routes between the A465 and the HEZ

3. Alternative Modes Assessment

3.1.1 The purpose of this section is to describe the alternative travel modes that are available within the study area and their ability to meet the needs of travellers.

3.1 Bus Services

3.1.1 There are multiple bus services that operate along the A465, A49 and around the Rotherwas area. The services and their frequency are detailed in Table 1-2.

Table 1-2: Bus Services and Frequency

Bus Service	Route	Frequency
23	Abergavenny – Hereford (A465)	Every 30 minutes Monday – Friday Every 2 hours Sunday
413, 440, 441	Broad Oak / Abbeydore / Longtown – Hereford (A465)	Twice a day Monday – Friday Three times a day Saturday morning No Sunday service
33	Gloucester – Hereford (A49)	Every 50 minutes Monday – Friday Every hour Saturday Every 2 hours Sunday
66	Monmouth – Hereford (A49)	Every 2 hours Monday – Saturday Every 3 hours Sunday
454	Hereford – Woolhope Nurdens (The Straight Mile)	Every hour Monday – Friday (until 14:30) No Sunday service
R	Hereford – Rotherwas Industrial Estate and HEZ	Every hour Monday – Saturday

3.1.2 The bus services connecting into Hereford operate with generally low frequencies, and direct links to HEZ are particularly limited. Along the A465 corridor, only Service 23 provides a relatively regular timetable. Services on the A49 are similarly infrequent, with the 33 operating roughly every 50 minutes on weekdays and the 66 only every two hours.

3.1.3 Local connections are also constrained as the 454 runs hourly but only until mid-afternoon and does not operate on Sundays. Crucially, HEZ is poorly served, with only a single route (Service R) providing an hourly connection from Monday to Saturday and no Sunday service, resulting in limited public transport accessibility to the employment area.

3.2 Rail Network

3.2.1 Hereford Railway Station is located to the north of the city centre and sits on the Marches Line, providing direct connections to major centres such as Cardiff,

Newport, Shrewsbury and Manchester, as well as links to Birmingham and London via the Cotswold Line.

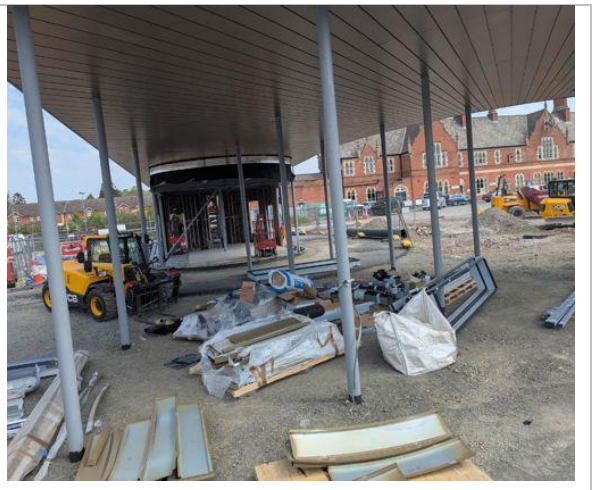
3.2.2 The railway operates independently of HEZ, with no direct connection between the station and the employment area. HEZ is approximately a 56-minute walk from Hereford Railway Station, meaning that while the rail network supports wider regional accessibility, it does not provide a direct link to main employment site within the city.

3.2.3 A major scheme is currently underway to provide an Integrated Transport Hub at Hereford Station (Figure 1-2). The transport hub will tie together local heritage, public transport and active travel - creating an attractive environment for all users. The Transport Hub will include new bus stops, an indoor waiting space, toilets, and a driver restroom as well as generous pedestrian/wheeling and cycle access, covered cycle storage and cycle rental, to encourage more active travel. Construction of the Transport Hub is currently underway and it is expected to open in October 2026.

Figure 1-2: Hereford Transport Hub



Artists Impression of Transport Hub



Construction Progress (May 2026)

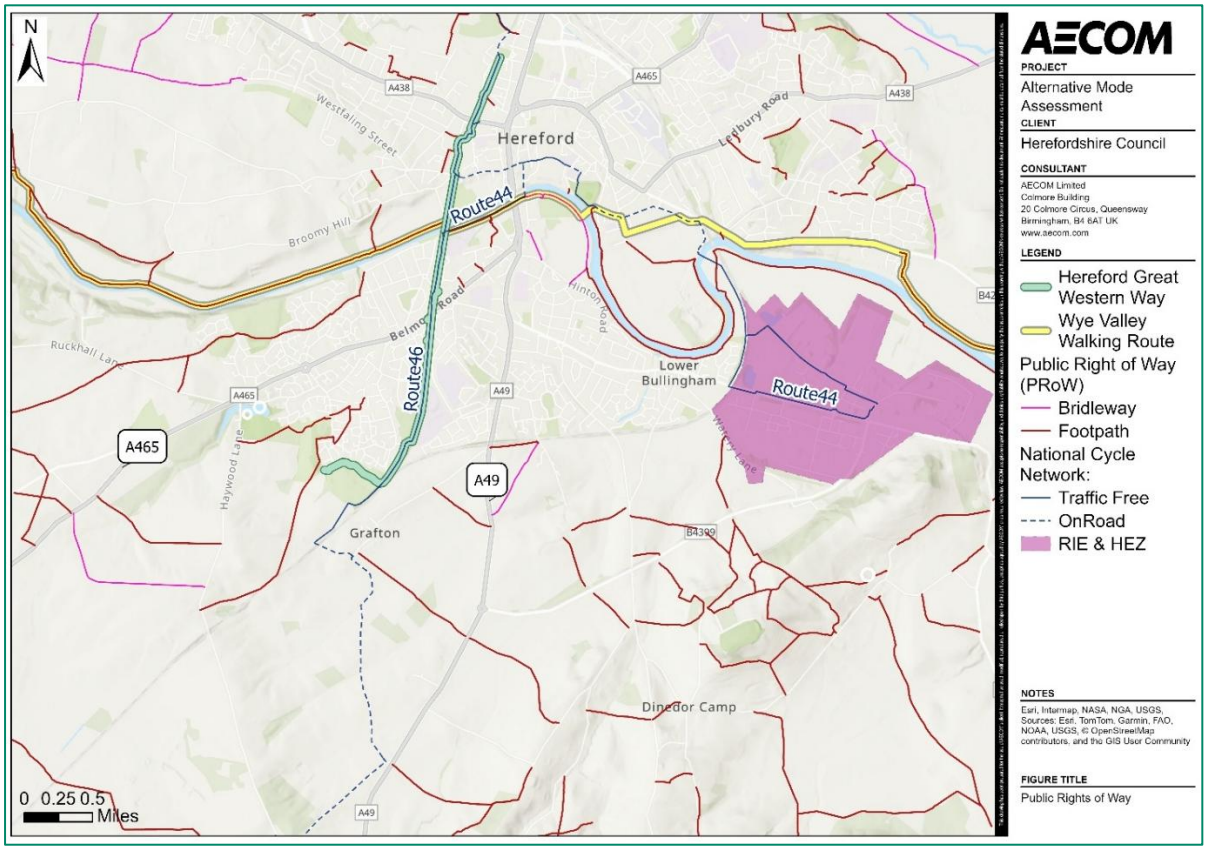
3.2.4 Bus services from the Transport Hub will provide connections to Monmouth, Ross-on-Wye and Llandrindod Wells, as well as routes within and around Hereford. Only one route (Service R) stops within HEZ.

3.3 Public Rights of Way (PRoW) Network

3.3.1 PRoW routes provide direct, low-traffic connections between surrounding rural communities, the southern edge of Hereford and the employment areas at HEZ. Many of these footways link into the wider active travel network, including the Great Western Way and Wye Valley, giving walkers and cyclists an alternative to using the main road corridors such as the A49 and A465.

3.3.2 Around HEZ, the PRoW network runs along the River Wye and Watery Lane, providing established walking routes in the vicinity of the Rotherwas area and linking parts of Hereford with the surrounding countryside, but not extending directly into the HEZ itself. Those walking from Hereford city centre should expect a journey of around 50 minutes to reach HEZ. This route largely avoids the PRoW network, instead following footways alongside the carriageway and sections through King George V Playing Fields.

Figure 1-3: Public Rights of Way Map (Footpath UK)[1]

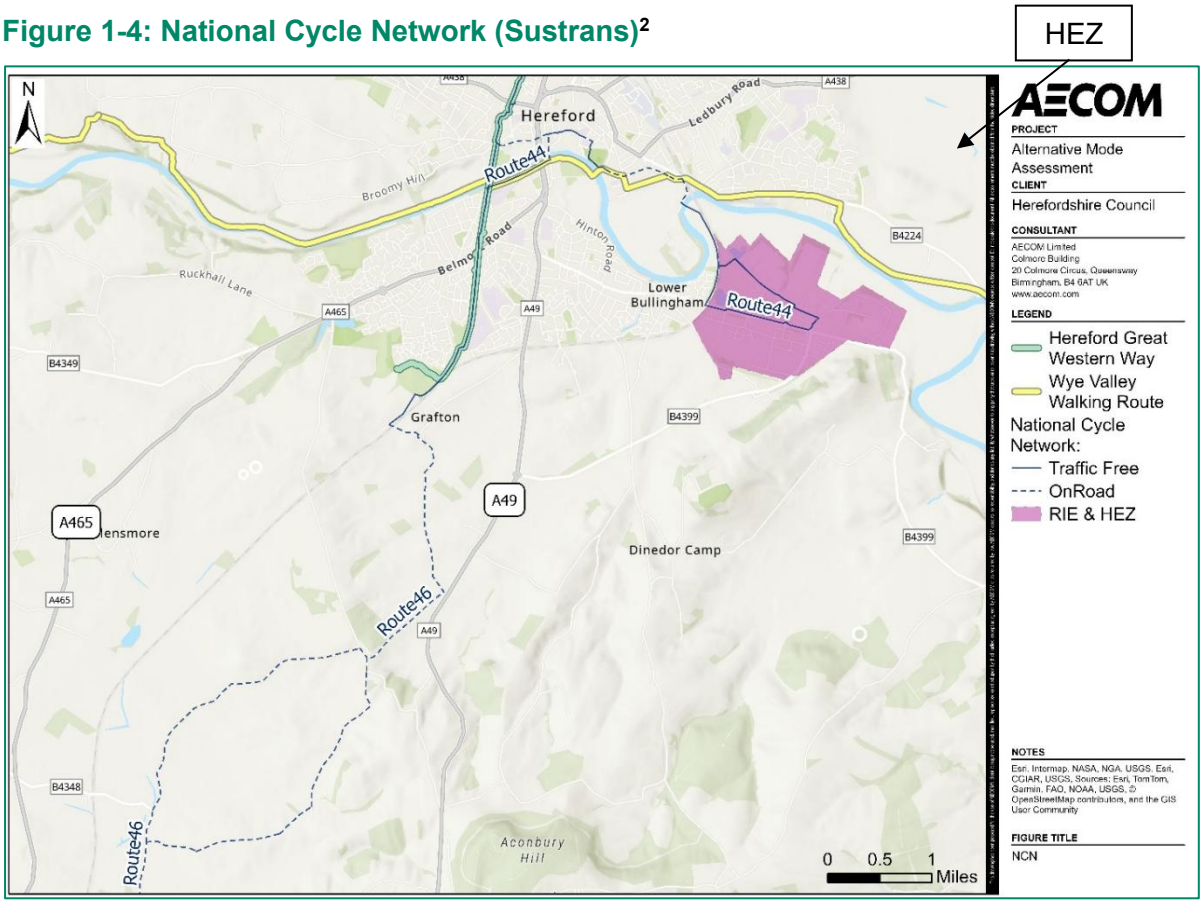


[1] https://footpathmap.co.uk/map/

3.4 Cycle Network

3.4.1 National Cycle Route (NCR) 44 and 46 pass through Hereford, with NCR 44 running directly through the HEZ. NCR 46 approaches the city by following quiet country lanes parallel to the A446 and A49 before connecting to an off-carriageway shared use footway that forms part of the Great Western Way.

Figure 1-4: National Cycle Network (Sustrans)[2]



3.4.2 Holme Lacy Road is a predominantly residential route that provides a link from the A49 to the HEZ. Herefordshire Council are currently implementing a major scheme for this road that will make the road safer, smoother and less polluting for everyone - whether they are in a car, public transport, walking, wheeling or cycling.

3.4.3 The Holme Lacy Road scheme includes improvements and upgrades along the corridor to turn a very well utilised corridor into a 'spinal route' connecting homes to work zones and the city centre. The upgrades will run from Oak Crescent all the way to the Thorn Business Park junction (near Rotherwas). The key aims are:

- Boost safety for all users
- Reduce traffic jams and pollution in residential areas
- Fix the road: better surfaces benefits drivers and reduces flooding
- More choice: so people can drive, walk, wheel or cycle in their own dedicated spaces

3.4.4 The scheme, which is expected to be complete in 2027, will make it safer for people walking and cycling. The new wide, raised path will let bikes and pedestrians travel safely off the road. It will create a proper, dedicated cycle route from Rotherwas to the city and homes in the surrounding residential area.

[2] https://explore.osmaps.com/

3.5 Summary

3.5.1 The overall accessibility of HEZ by sustainable modes is constrained by infrequent bus services and limited direct connections. Most routes into Hereford operate at low frequencies, with only a single bus service (Service R) providing an hourly link to HEZ, with no Sunday provision. This results in poor public transport coverage for the employment area.

3.5.2 While Hereford Railway Station offers strong regional connectivity, it is located a 56-minute walk from HEZ, significantly reducing its usefulness for onward access. Although cycle parking and hire facilities are available at the station, onward travel by bike assumes users are confident cyclists. National Cycle Route 44 provides a signed link into HEZ but may not be suitable for all users and can be a seasonal or weather dependent option.

3.5.3 Walking connections to HEZ are similarly limited as the journey from Hereford city centre takes around 50 minutes and relies on footways alongside the carriageway rather than dedicated PRoW routes, offering a functional but not particularly attractive or accessible walking environment.

The improvements to Holme Lacy Road will make this a more attractive environment for walking and cycling, particularly from the local residential areas. However, connectivity across the rest of the South Wye area and wider city to and from HEZ is still limited for walking, cycling and public transport.

Appendix J – Appraisal Specification Report

Hereford Western Bypass

Appraisal Specification Report

June 2026

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Section 1 Introduction

1.1 Overview

1.1.1 This document is the Appraisal Specification Report (ASR) for the Full Business Case (FBC) for the Hereford Western Bypass Phase 1 – Southern Link Road (the Scheme). The FBC is required to be developed to demonstrate the case for the Scheme and secure internal funding from Herefordshire Council.

1.2 Report Purpose

1.2.1 Although Department for Transport funding is not being sought for the Scheme, this ASR has been developed to ensure consistency and alignment with DfT's Transport Assessment Guidance (TAG[1]).

1.2.2 The ASR is intended to set out the proposed economic appraisal approach for the FBC.

1.2.3 The purpose of this ASR is to set out how appraisal will be undertaken and contains detail on:

- the Scheme and the transport objectives to be addressed by the Scheme, which form a crucial part of the Strategic Dimension in the business case;
- the focus of local objectives, reflecting the need for intervention;
- the scope, methodology, assumptions of the transport model and traffic forecasts which will be used for the Scheme assessment and appraisal;
- the scope, methodology, assumptions of the transport appraisal which will form the Economic Dimension of the Scheme business case; and
- an assessment of the key risks at this stage of the study.

1.2.4 The aim of the ASR is to set out an appraisal approach that will form the basis of the assessment and appraisal of the Scheme.

1.2.5 The ASR remains a live document and will be reviewed and updated regularly during the project life cycle to reflect any changes in the scope and approach.

1.3 Stakeholder Engagement and Approach Verification

1.3.1 The ASR allows all stakeholders related to the project to understand the assessment and appraisal work required during the FBC stage of the work. In relation to the Scheme, the ASR operates as a reference for the Scheme consultant (AECOM), Herefordshire Council and any other relevant stakeholder to ensure that the technical work is carried out in an approved and appropriate manner.

1.3.2 This ASR contains details of risks that exist within the proposed work. This increases the visibility of these risks and provides greater understanding of how the technical work detailed may impact on project timescales and cost.

1.4 Report Structure

1.4.1 The structure of this ASR is set out in accordance with TAG and following this introduction includes:

- Section 2 - Project Description;
- Section 3 - Transport Modelling
- Section 4 - Forecasting; and
- Section 5 – Economic Assessment.

[1] https://www.gov.uk/guidance/transport-analysis-guidance-tag

Section 2 Project Description

2.1 Scheme Background

2.1.1 There have been long-standing plans for a bypass of Hereford city centre, going back several decades. These plans have been borne out of a need to address several underlying challenges including network resilience issues caused by a lack of crossings over the River Wye, traffic congestion along the A49, especially in Hereford City Centre, environmental considerations such as the need to improve air quality in the city, and a range of socio-economic issues including poor health and social mobility.

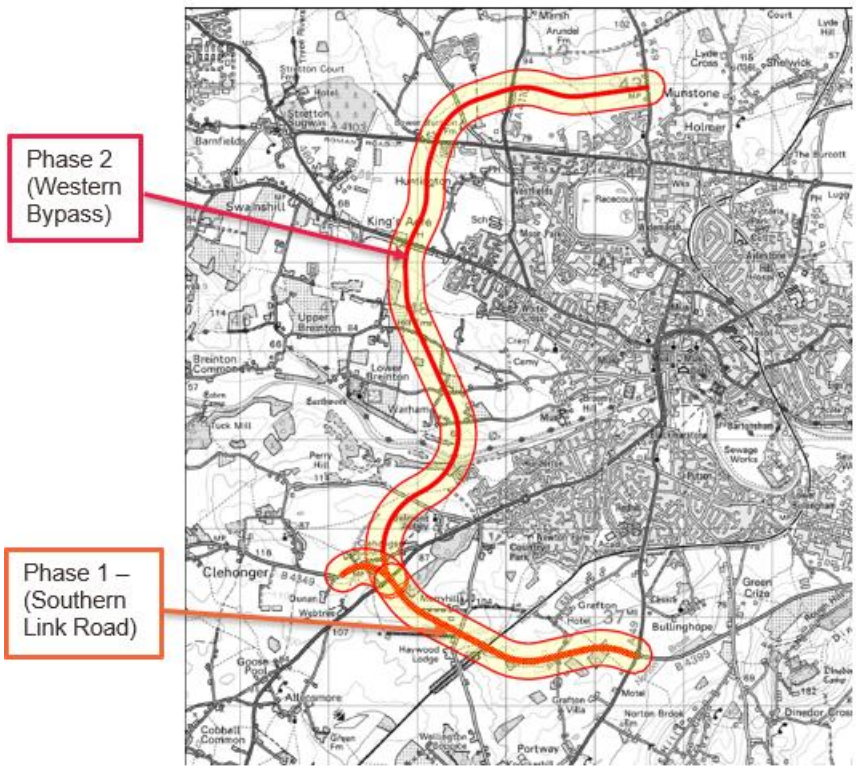
2.1.2 More recently, the need to accommodate the significant housing demands for the county as prescribed in the updated National Planning Policy Framework (NPPF) has further added to the case for new road infrastructure to support the delivery of the proposed new housing, as well as addressing the existing issues along the A49 corridor.

There has been a significant amount of work which has been previously been undertaken in developing a bypass solution for Hereford. This has considered alignments on both western and eastern sides of the city centre. In 2024, as part of the New Road Strategy for Hereford, Cabinet recommended that the Western Bypass should be taken forward to realise the county's strategic housing and employment land growth.

2.2 Scheme Description

2.2.1 The full extent of the Western Bypass is shown in Figure 1, and is made-up of two parts; the Phase 1 Southern Link Road (SLR) (which forms the focus of this ASR), and Phase 2 which connects with the SLR and forms the northern section of the route.

Figure 1 - Hereford Western Bypass



2.2.2 The Phase 1 element of the Scheme will provide a new link road between the A465 and A49 to the south-west of Hereford city centre. It is a 3km long section of rural all-purpose single carriageway, with a design speed of 60mph. The Scheme was developed to an advanced stage and received planning permission in 2016 (which remains extant), with work commencing on a FBC for the South Wye Transport Package (SWTP) (which included the SLR) in 2018.

2.2.3 The Phase 2 element of the scheme is at a less-advanced stage but involves connecting to the Southern Link Road and routeing to the west of the city centre before connecting with the A49 to the north of the city.

2.2.4 Following the May 2019 Council elections, a decision was taken to pause on all new major road schemes for Herefordshire, including the FBC for the SWTP, before in 2021 it was formally decided by the full Council to stop progress on the Western Bypass and SWTP with other options being considered. As a result, the FBC for the scheme was not completed. However, this decision was reversed following the elections in May 2023, with the New Road Strategy for Hereford recommending in 2024 that progress should be recommenced with the Western Bypass.

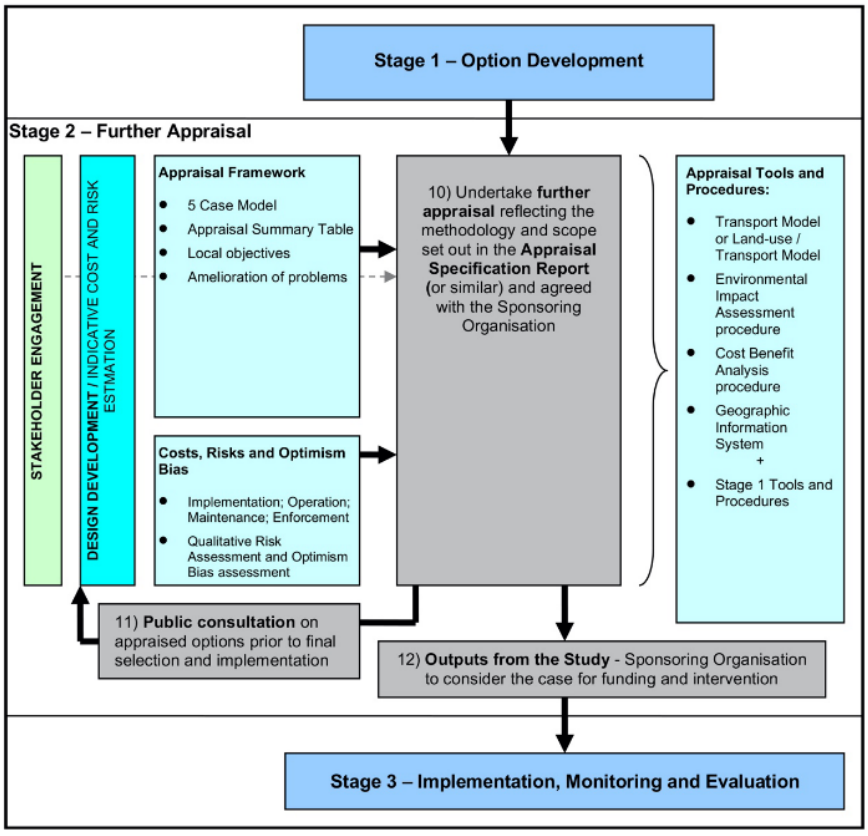
2.3 Current Stage of The Project

2.3.1 Following the decision to recommence work with the Western Bypass, AECOM was commissioned in February 2025 to take forward the Phase 1 SLR to construction by December 2026, which includes updating the detailed design to latest standards and completing the business case for the scheme. As set out in Chapter 1, this ASR outlines the modelling and approach which will be adopted in helping to make the case for the Phase 1 element of the Scheme[2].

2.3.2 Full economic and financial appraisals will take place at this stage (building up the economic and financial dimensions within the business case), and preparations will be made for the potential contract through the development of the commercial dimension. The arrangements required to ensure successful delivery are set out in the management dimension. These details will all be presented in the FBC.

2.3.3 This ASR provides the specification of the methodology and scope for Stage 2 of the TAG appraisal process for the assessment of the preferred option and delivery of the FBC submission, as shown in Figure 2[3]. This will also include the underlying assumptions, data sources and risks around the Scheme development and assessment.

Figure 2: Stage 2 of the Transport Appraisal Process



[2] It should be noted Phase 2 of the Western Bypass is at a much earlier stage of scheme development, with different alignments to be considered by AECOM as a different phase of work.
[3] https://assets.publishing.service.gov.uk/media/5fbfb271d3bf7f572b163fb9/tag-transport-appraisal-process.pdf

Section 3 Transport Modelling

3.1 Approach to Traffic Modelling

3.1.1 To understand the future network issues and to forecast the potential impact of the scheme, traffic modelling forecasts will be undertaken to provide an evidence base for the assessment of the scheme. These will also provide data to assess the Scheme impacts to underpin the strategic and economic dimensions of the business case, an updated estimate of the scheme BCR and the value for money of the scheme. The traffic model forecasts can also be used to support a range of other relevant analyses, including environmental, social and safety benefits of the scheme.

3.1.2 The Herefordshire Strategic Transport Model (HSTM) has been specifically developed for use in developing major transport schemes and development assessments, such as the Phase One of the bypass.

3.1.3 The HSTM has a base year of 2023 and was developed with reference to national guidance, particularly the DfT's TAG and followed this guidance where possible in all modelling principles, as well as using the guidance to obtain economic parameters used in the model (such as fuel prices and values of time).

3.2 Model Suite

3.2.1 The HSTM was developed and is maintained by AECOM on behalf of Herefordshire Council and consists of the following interlinked components:

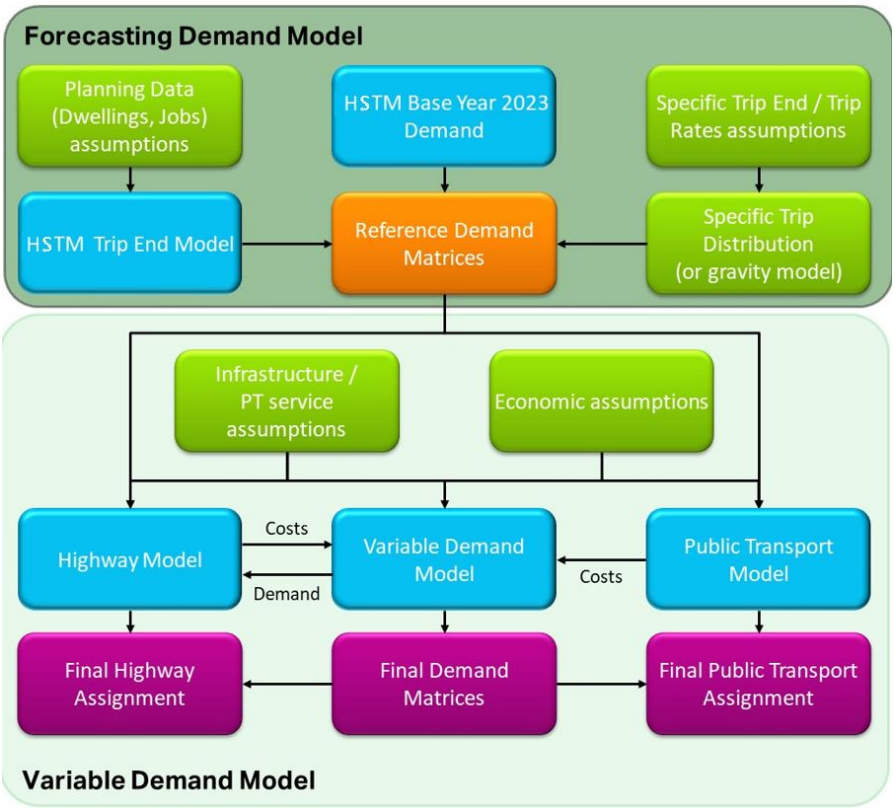
- a highway assignment model (SATURN);
- a public transport model (EMME);
- a variable demand model (EMME); and
- a trip end model (a CTripEnd variant).

3.2.2 For the purposes of forecasting, the trip-end model is based on the DfT's National Trip-End Model (NTEM); implemented in Microsoft Access and Visual Basic. The demand model and public transport model are implemented in Bentley's EMME transport modelling software, and the highway model is based in the SATURN traffic assignment package.

3.2.3 The trip-end models carry out specialised tasks that standard transport modelling software does not generally support, hence their construction externally. EMME does not support detailed congestion or quasi-dynamic traffic modelling, so SATURN is preferred for this purpose, but SATURN does not have EMME's matrix manipulation, public transport assignment, or general transport modelling capabilities.

3.2.4 Figure 3 shows the interaction of the model between the base model, forecast model and demand model elements of the HSTM.

Figure 3: HSTM Model Suite Interactions



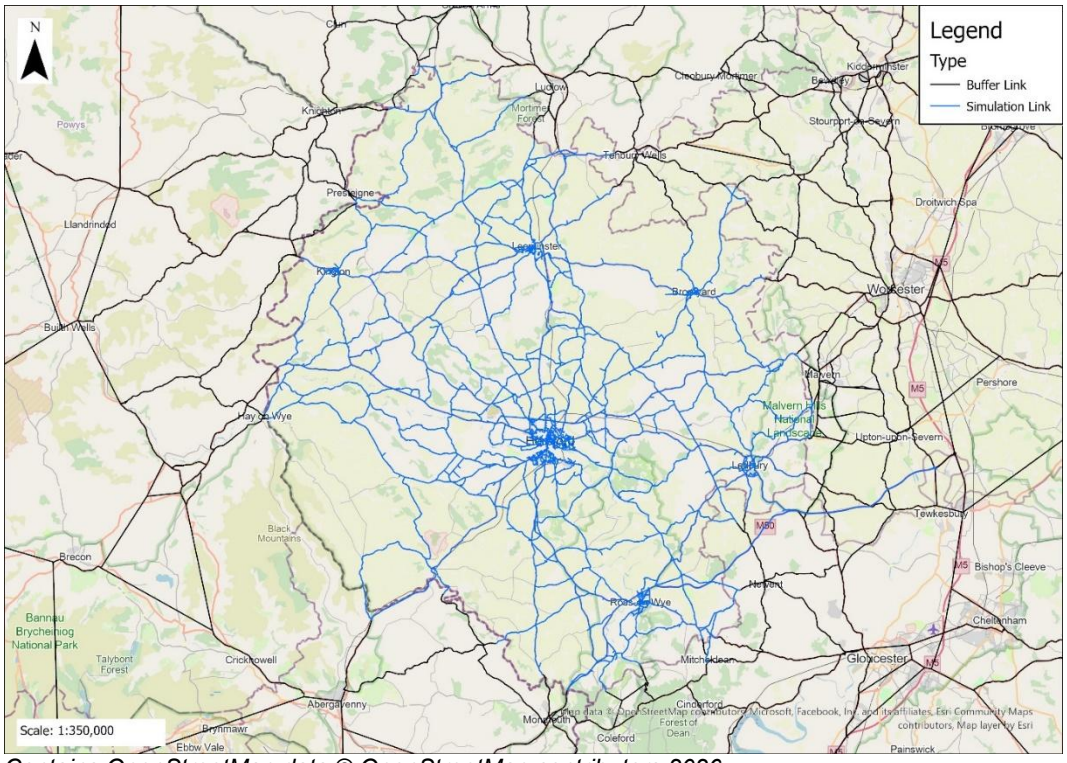
3.2.5 As previously highlighted, the model has been built in accordance with TAG and other relevant guidance including the Design Manual for Roads and Bridges (DMRB) where appropriate and developed as a key tool to secure wider-ranging infrastructure funding for Herefordshire.

3.3 Model Specification

Model Coverage and Highway Network Structure

3.3.1 The HSTM model covers the whole of mainland Great Britain with roads distant from Herefordshire represented in skeletal form. The highway network was developed from the Ordnance Survey (OS) OpenRoads dataset. This provides mapping of the road network in Great Britain and contains information on link lengths, road types/standards and provides network coordinates and link shaping to reflect the topology of the road network. Within Herefordshire, all roads of significance are modelled in detail; the coverage of the HSTM and the HSTM network is shown in Figure 4.

Figure 4: Existing HSTM simulation network coverage



Contains OpenStreetMap data © OpenStreetMap contributors 2026

3.3.2 Outside the simulation network shown in blue in Figure 4, within the highway assignment model is an area of buffer network coding (where junctions are not modelled in detail) with speed-flow curves. Within this area the modelled speeds will respond to the level of traffic.

Model Zone System

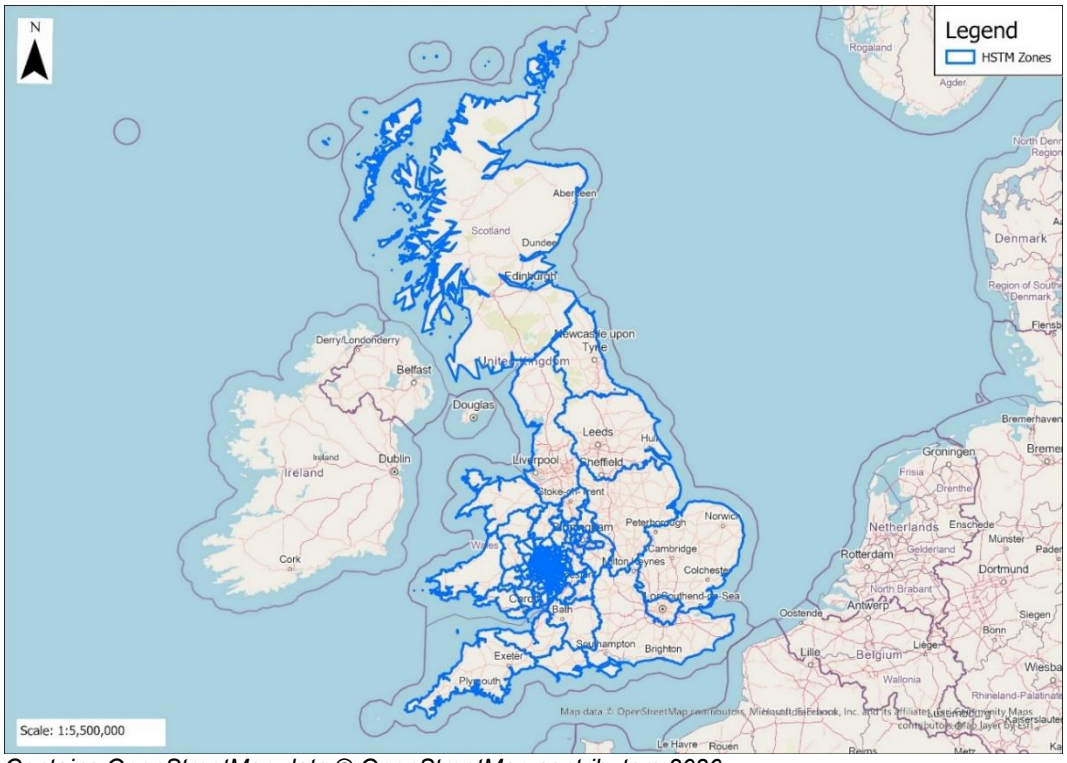
3.3.3 The HSTM zone system uses a newly defined zoning system covering the whole country with zone boundaries consistent with the 2011 Census Middle Super Output Areas (MSOAs) in which the mobile network data were supplied. Smaller subdivisions also follow Lower Super Output Area and Output area boundaries. To accommodate the housing developments that have occurred around the north of Hereford since 2011 in suitable zones, the smaller areas are taken from the 2021 Census geography.

3.3.4 Following the principle that zones should have distinct land-use, if possible, around 20 areas of largely employment or distinct land-use compared with the underlying zones were identified and put in separate 'employment' zones. Large areas of non-residential land-use such as Rotherwas and Hereford City Centre were subdivided giving 49 employment zones in total.

3.3.5 In total 577 zones were defined of which 475 are within Herefordshire, 86 with reasonable detail are within the MND area and parts of the West Midlands around Herefordshire and 16 are covering the rest of Great Britain.

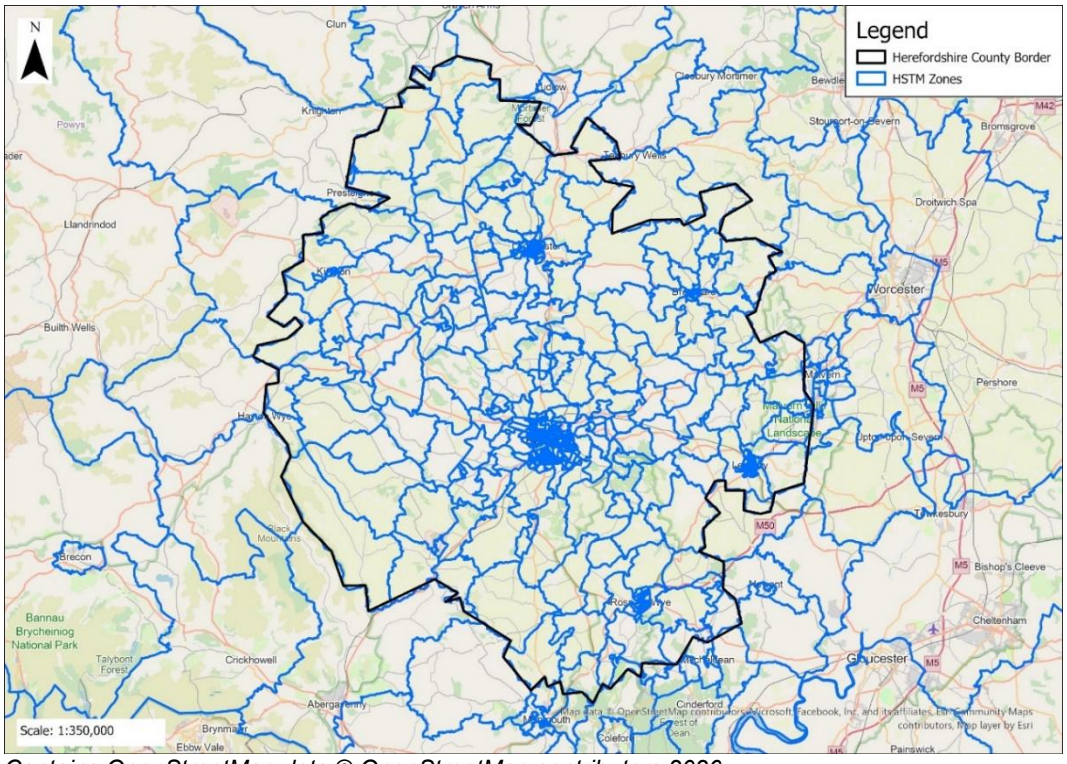
3.3.6 Figure 5 and Figure 6 provide an overview of the zone system at different geographical levels.

Figure 5: HSTM Zone System (Overview)



Contains OpenStreetMap data © OpenStreetMap contributors 2026

Figure 6: HSTM Zone System (Herefordshire)



Contains OpenStreetMap data © OpenStreetMap contributors 2026

Matrix Segmentation and User Classes

3.3.7 The highway matrices for the HSTM are represented as production-attraction (PA) trips for home-based purposes and as origin-destination (OD) trips for non-home-based purposes, including freight.

3.3.8 The representation of PA trips for home-based trips has no direct relevance for the highway assignment model, which will assign OD vehicle matrices. The PA trips for home-based purposes are of importance for the demand model, with their use having the following key property:

- ensuring that the representation of home and non-home related land-use patterns are appropriately represented in the demand model, through the linkage of homes to trip productions rather than origins.

3.3.9 The demand matrices in the model represent the journey purposes shown in Table 1 with freight demand only derived for highway-based trips:

Table 1 - Highway journey purposes

Home / Non-Home Based	Purpose
Home-Based	Commuting
	Education
	Employers' Business
	Other
Non-Home-Based	Employers' Business
	Other
	Light Goods Vehicles
	Heavy Goods Vehicles

3.3.10 The demand model requires the most detailed segmentation of demand, with the highway and public transport assignment models reflecting an aggregation of this demand segmentation. For the highway assignment model, the travel demand is aggregated into the following five assignment user classes:

- User Class 1: HGVs;
- User Class 2: LGVs;
- User Class 3: Car Employers' Business;
- User Class 4: Car Other; and
- User Class 5: Car Commuting.

3.3.11 The HSTM contains the following calibrated time periods:

- Morning peak hour (AM): 07:00-09:00 (modelled as 08:00-09:00);
- Average interpeak hour (IP): 09:00-15:00 (modelled as an average hour);
- Evening peak hour (PM): 15:00-18:00 (modelled as 16:00-17:00); and
- Saturday peak hour: 11:00-12:00.

3.4 Calibration

3.4.1 A local model calibration and validation exercise has been undertaken for the HSTM using observed count information.

3.4.2 The calibration of the HSTM involved ensuring the model represents the on-site observed conditions by adjusting model inputs and parameters. The process involves examination of the network, checking for errors, and improving the performance of the model in terms of comparisons with observed data. Calibration statistics will be presented using the DfT's TAG criteria, reported in a Local Model Validation Report.

3.4.3 Calibration is undertaken for the four main components of the highway model:

- network;
- route choice;

- trip matrix; and
- assignment.

3.4.4 The tasks above are interlinked and hence need internal consistency to address the issues identified by the calibration process.

Network calibration

3.4.5 During the network building calibration process, the following activities are undertaken:

- review of the network coding warnings produced by the SATURN network building program SATNET;
- network distance and speed checks;
- review of junction approaches and saturation flows;
- detailed review of the coding of complex junctions; and
- exclusion of neighbouring turning counts from the validation spreadsheet.

Route choice calibration

3.4.6 At various stages of model development, the minimum cost routes for a range of selected OD pairs should be plotted and checked for plausibility. Modelled route choice depends on:

- zone size;
- network structure;
- centroid connectors;
- trip matrix accuracy;
- representation of speeds and delays; and
- junction coding accuracy.

3.4.7 Where routes are found to be implausible one or more of the above aspects have been adjusted.

Trip matrix calibration

3.4.8 As part of the trip matrix calibration, it is essential to validate the trip matrices by comparing assigned flows with traffic counts GEH statistic used to compare observed and assigned flow. The statistic uses the following formula to calculate a value for the difference between observed (ME – survey data) and modelled (MG – model SATURN flow) traffic flow:

$$GEH\ Statistic = \sqrt{\frac{(ME - MG)^2}{0.5(ME + MG)}}$$

3.4.9 The GEH statistic takes account of the fact that when traffic flows are low, the percentage difference between observed and modelled flow may be high but the significance of this difference is small and conversely, a small percentage difference on a large base might be important. The aim is to achieve at least 85% links and turns with a GEH less than 5 as specified in Unit M3.1 of TAG.

Assignment calibration

3.4.10 Unit M3.1 of the DfT's TAG also specifies the following flow validation criteria for links and turns:

- individual flows within 100 vehicles per hour for flows less than 700 vehicles per hour in more than 85% of cases;
- individual flows within 15% for flows between 700 – 2,700 vehicles per hour in more than 85% of cases; and

- individual flows within 400 vehicles per hour for flows greater than 2,700 vehicles per hour in more than 85% of cases.

3.4.11 The subsequent model outputs are assessed in compliance with the criteria outlined above.

3.4.12 TAG also contains guidance on the acceptability of journey time validation. For journey time validation, TAG recommends the following:

- modelled times along routes should be within 15% of surveyed times (or 1 minute, if higher than 15%) for at least 85% of routes.

3.4.13 The assignment model outputs are also assessed to check compliance with the journey time criteria outlined.

VDM Realism Tests

3.4.14 As noted in TAG Unit M2, once a variable demand model has been constructed, it is essential to check that it behaves 'realistically'. This is achieved by adjusting various components of travel costs and times and checking that the overall response of demand accords with general experience. The values of the parameters controlling the response of demand to costs should be adjusted until an acceptable response is achieved. This recognises the large and unavoidable uncertainties in some of the parameter values, and the importance of reflecting local conditions in relative values.

3.4.15 For the HSTM, these criteria apply principally to realism testing and consist of convergence between the highway assignment and the VDM and the elasticity range within which demand responses to changes in fuel costs and public transport costs lie. These are set out in TAG Unit M2.

Section 4 Forecasting

4.1 Introduction

4.1.1 As is standard practice and recommended by TAG, all assumed demand and supply side changes will be recorded in an Uncertainty Log.

4.2 Forecasting Assumptions

4.2.1 Using the latest information on the likely construction programme, the scheme project programme has been reviewed and the opening year is assumed to be 2028. Based upon this revised opening year, forecast models will be developed for the following years:

- 2028 – opening year;
- 2043 – interim design year; and
- 2061 – final horizon forecast year.

4.2.2 The traffic forecast for each forecast year will be consistent and constrained to NTEM growth projections but informed by the development information contained in the Uncertainty Log.

4.2.3 The update to the forecast models will include the following:

- incorporation of the latest TAG data book values (v2.03), that became live in late May 2026;
- updates to forecast dwellings and jobs within the study area based on data assembled from Herefordshire Council (HC) in the modelled area and confirmed with planning officers from the Council; and
- review of the certainty associated with potential transport infrastructure schemes their subsequent inclusion within the HSTM forecasts, confirmed with HC planning officers.

Forecast Networks

4.2.4 The Do Minimum highway networks will include transport schemes on the basis of their level of certainty. The description of the certainty levels is contained in Table A2 in the appendices to TAG Unit M4.

4.2.5 The Do Something networks will reflect the latest design of the Scheme.

Forecasting Parameters

4.2.6 For the forecasts, a range of parameters are used to forecast demand changes and responses, including Values of Time (VoT) and Vehicle Operating Costs (VOC).

4.2.7 These values will be sourced from the TAG data book v2.03, that went live at the end of May 2026.

Sensitivity Testing and Uncertainty

4.2.8 The forecasting will be carried out for a Core Scenario with the updates to the Core Scenario as described above. To capture the uncertainty associated with any traffic forecasts, two Common Analytical Scenarios (CAS) will be run.

4.2.9 These CAS have been released by DfT to help inform uncertainty in traffic forecasts covered by guidance from the DfT contained in the TAG Uncertainty Toolkit[4].

4.2.10 There are seven CAS in total, with associated data and trip ends for each scenario published by the DfT. It would be disproportionate to model all seven scenarios, but the most relevant CAS will be tested, these being the High Economic Growth and Low Economic Growth scenarios.

Forecast Outputs

4.2.11 Traffic flow and journey time data from the models will be used to inform the economic appraisal and any environmental assessments undertaken.

[4] https://www.gov.uk/government/publications/tag-uncertainty-toolkit

4.2.12 For the economic appraisal, forecasts of traffic volumes and generalised cost changes between the Do Minimum and Do Something will be used to assess the economic benefits of the Scheme. They will also inform the accident assessment and wider impacts of the Scheme. Details of these are available in the next section of this report.

4.2.13 Traffic forecasts will also be available for the environmental teams for developing any required air quality or noise models to enable the appraisal of environmental impacts. For each modelled year and scenario, the following data will be available:

- average link flow and speed data by time period and for:
    - 24-hour annual average daily traffic (AADT) data for air quality modelling;
    - 18-hour annual average weekday traffic (AAWT) data for noise modelling; and
- percentage mix of HGV traffic (all vehicles greater than 3.5 tonnes).

Section 5 Economic Assessment

5.1 Introduction

5.1.1 Economic assessment involves the determination of the costs and benefits of a scheme using travel demand, traffic flows, journey times and other outputs from the transport model.

5.1.2 By comparing the costs with the benefits of a scheme over a 60-year assessment period, a Benefit Cost Ratio (BCR) can be calculated, which is a critical element in the assessment of the Value for Money (VfM) of a scheme. In-line with HM Treasury's appraisal requirements, non-monetised impacts of the scheme should also be considered as part of the VfM assessment.

5.1.3 This chapter provides a general description of the economic appraisal approach proposed for the Scheme.

5.1.4 The economic appraisal will be undertaken in accordance with DfT's TAG Units:

- TAG Unit A1.1 'Cost-benefit analysis';
- TAG Unit A1-2 'Scheme costs';
- TAG Unit A1-3 'User and provider impacts'; and
- DfT Value for Money Framework.

5.1.5 The HSTM will be used to generate the inputs into the economic appraisal, summarised in the Transport Economic Efficiency (TEE) table. The use of the HSTM will determine the trips and cost matrices by user class which will be used in the Transport User Benefit Appraisal (TUBA) software.

5.2 Scheme Costs

Base Costs

5.2.1 A design and build contactor for the Phase One scheme has been procured and as part of their commission, have provided a base cost profile including project development, construction, and support resource costs. The cost profile will be set out in 2026 prices and will make up the base cost estimate used within the economic assessment.

5.2.2 A real cost adjustment will be applied to the base costs to account for the difference between general inflation and construction inflation forecasts over the appraisal period, as costs are expected to be incurred including and up to financial year 2027/2028.

5.2.3 Costs will be converted into the DfT's standard price base of 2023. The cost estimates meet the following criteria, and have been checked against them:

- include costs based on the latest scheme design;
- exclude any costs already incurred (sunk costs);
- exclude both recoverable and non-recoverable VAT;
- exclude any costs that are present in both the Do-Minimum and the Do-Something scenarios;
- includes any costs to be incurred by Central Government, and local government provided separately; and
- includes the amount of and phasing of any developer contributions.

Optimism Bias

5.2.4 DfT TAG Unit A1-2 outlines the requirement for the scheme costs to be adjusted for risk and uncertainty. This will take the form of a contingency uplift derived from quantitative risk assessment (QRA) or an optimism bias adjustment. The recommended optimism bias uplift for a road scheme at FBC stage is 20%, however, the contributory factors of the optimism bias may be reconciled in line with Green Book Supplementary Guidance for Optimism Bias. It is common for the optimism bias and QRA to be different as percentages of the base cost estimate, either due to unknown unknowns (in the case that OB > QRA), or due to inherent risks of the scheme (in the case that QRA > OB).

5.2.5 TAG Unit A1-2 recommends the larger of the QRA and OB uplifts (as percentages of the base cost estimate) is applied.

Discounting

5.2.6 To present scheme costs in present values, scheme costs will be discounted back to 2023. A discount rate of 3.5% will be applied for the first 30 years from the appraisal year, with a 3% discount rate applied thereafter.

Market price adjustment

5.2.7 Costs will be converted from factor costs to market prices using the indirect tax correction factor contained within the most recent TAG data book v2.03 (May 2026).

5.3 Scheme Impacts/ Benefits

5.3.1 There are several different components that form the overall scheme benefits. Following DfT TAG contained in Unit A2.1, Section 3.2, these components are categorised into 'levels' of benefit, dependent on the level of confidence in the appraisal method:

- Level 1: these are benefits where the analysis is the most robust and where there is a high-level of confidence and form the initial assessment of VfM, and are included in the initial BCR;
- Level 2: these represent benefits where the analysis is robust, but where the appraisal methods may be considered as 'evolving' and, as such, less certainty may be placed on the monetised impacts from the Scheme. The benefits deriving from these impacts are added to the initial assessment to generate an adjusted BCR; and
- Level 3: these comprise both indicative monetised and non-monetised impacts. These are considered in the VfM assessment as to whether they may materially alter the overall VfM from that based upon the adjusted BCR and may from part of an overall BCR which includes these indicative and non-monetised impacts.

5.3.2 In determining what impacts fall under each of the different levels, guidance given in TAG A2.1 and the DfT's 'Value for Money framework' will be followed and used for the overall VfM assessment.

5.3.3 We will also supplement the appraisal with the production of an Economic Narrative within the FBC to articulate and justify the scope of the analysis.

5.3.4 Table 2 shows the impacts which are currently being considered for appraisal.

Table 2 – Scheme Impact Assessment Approach

Level 1 impacts	Level 2 impacts	Level 3 and indicative impacts	Non-monetised impacts
Quantitative and qualitative: • Construction impacts • Journey time savings • Vehicle operating costs • Indirect taxation • Accidents • Greenhouse gasses • Noise • Air quality	Quantitative and qualitative • Reliability • Static wider economic impacts	Quantitative and qualitative • None	Security Severance Accessibility Townscape Historic environment Landscape Biodiversity Water environment Affordability Access to services
Qualitative only: • Physical activity • Journey quality		Qualitative only: • Other dynamic wider economic benefits	

5.3.5 No development is identified as being dependant on the scheme, therefore the land value uplift associated with enabling new homes and employment growth is not included within the assessment.

5.4 Transport Economic Efficiency (TEE) – TUBA

5.4.1 TUBA is the industry-standard software used to derive the TEE of a scheme. It considers both business and consumer traveller impacts and the private sector provider revenues and cost elements as required by TAG.

5.4.2 TUBA takes trip, time and distance matrices for each forecast future year, vehicle type, journey purpose (i.e. each user class) by time period from the traffic forecast model to calculate travel time saving benefits. It does this by comparing the travel times in the Without Scheme scenario with those in the With Scheme scenario. It then applies monetary values or VoT to derive the monetary benefits of those time savings extrapolated over a standard 60-year appraisal period.

5.4.3 TUBA also calculates VOC changes which occur over the standard 60-year appraisal period accounting for changes in fuel, maintenance and wear and tear. These changes occur due to changes in speed and distance that result from the implementation of the scheme. Changes in VOCs due to the scheme affect the level of indirect taxation received and this is also calculated over the appraisal period.

5.4.4 The travel time and VOC benefits are then discounted to 2023, the DfT's standard base year for appraisal, and converted to 2023 market prices.

5.4.5 Table 3 provides a summary of the key assumptions to be adopted as part of the TUBA assessment.

5.4.6 Modelled time periods are expanded in TUBA to represent a full year of data, and this will be undertaken using annualisation factors which have been calculated using traffic count data, to derive appropriate expansion factors. As the HSTM models AM Peak, interpeak and PM Peak only, benefits for the other times (such as the weekend) will be estimated using the interpeak time period.

5.4.7 In accordance with best practice, the results of the TUBA assessments will be checked at several levels, including:

- sector to sector benefits;
- analysis of benefits by time period and journey purpose;
- benefits profile over 60-year period;
- analysis of benefits by size of time-saving / distance; and
- TUBA warnings will be closely checked to ensure that the results are logical and the input data were loaded correctly.

Table 3 - TEE TUBA assumptions

Item	Assumptions / Notes
Software	TUBA Version 1.10.01 released May 2025
Current year Scheme opening and first appraisal year Final appraisal year	2026 (defines the first year in which the discount rate is applied) 2028 2087
Appraisal period / Horizon year	60 years after scheme opening, in-line with TAG requirements
Forecast year trip, time and distance matrices from traffic model	The forecast years to be used in the option appraisal are to be confirmed but the recommendation is: • 2028 – assumed opening year • 2043 – interim design year • 2061 – final horizon forecast year
User classes	Trip, time and distance matrices for the following user classes will be input into TUBA: • Cars used for Employers' Business; • Cars used for Commuting; • Cars used for Other purposes; • Light Goods Vehicles (LGVs); and • HGVs
Economic Parameters	TUBA Economic Files v2.03, released November 2025

5.4.8 The results from TUBA will provide input into the following tables: Transport Economic Efficiency (TEE), Public Accounts (PA), Analysis of Monetised Cost and Benefits (AMCB) and Appraisal Summary Table (AST). The AMCB table provides a Benefit to Cost Ratio (BCR) for the scheme when all present value benefits (PVB) are compared with present value costs (PVC). The tables will be considered in relation to the results from each of the scenarios included in the appraisal.

5.5 Accident Benefit Analysis

5.5.1 In-line with TAG, DfT CoBA-LT software will be used to derive the accident benefits of the scheme. CoBA-LT compares the predicted numbers of accidents with and without the scheme and converts that change into monetary values by multiplying the numbers of accidents by their monetised costs. The benefits for each year are discounted to 2023 and summed over the 60-year assessment period. CoBA-LT uses nodes and links to represent the Base, Do Minimum (without scheme) and Do Something (with scheme) highway networks.

5.5.2 The CoBA-LT network for the scheme will cover all roads and junctions where the model predicts a significant change in flow between Do Minimum and Do Something scenarios (taken to be a change in flow of 10% or more).

5.5.3 CoBA-LT v2.10.01 (April 2026) software will be used for the assessment. Accident benefits will be calculated by type (slight, serious or fatal) by CoBA-LT, using the standard national average accident rates as set out in the TAG data book v2.02 (a v2.03 is not available at the time of writing). CoBA-LT will also use the latest set of forecasts used for the FBC. We assume that the accident analysis will only be conducted for the Core scenario only.

5.6 Delays during construction and maintenance

5.6.1 The assessment of delays resulting from the construction of the scheme will be dealt with using a spreadsheet model, underpinned by the May 2026 TAG data book.

5.7 Environmental Assessment

5.7.1 The impact of the scheme on the environment is sub-divided into a range of environmental impacts, as recommended by TAG. For the FBC, the assessment will examine the following impacts:

Air quality and greenhouse gases

5.7.2 At this stage, the assessment of air quality resulting from the construction of the scheme will be dealt with quantitatively, as indicated in Table 2, supported by the use of Defra's Emission Factor Toolkit and the TAG worksheets.

5.7.3 Carbon will be assessed quantitively using the DfT's VECAT tool. This assessment will only be carried out on the Core Scenario.

Noise

5.7.4 At this stage, the assessment of noise resulting from the construction of the scheme will be dealt with quantitatively, as indicated in Table 2 supported by TAG worksheets.

Landscape, townscape, historic environment, biodiversity and water environment

5.7.5 The assessment of Landscape, townscape, historic environment, biodiversity and water environment resulting from the construction of the scheme will be dealt with qualitatively, as indicated in Table 2.

5.8 Journey Time Reliability

5.8.1 Reliability is defined in TAG as the variation in journey time that transport users are unable to predict. It is expected that the Scheme will provide some journey time reliability benefits through alleviating congestion and a reduction in incidents on the A465.

5.8.2 The impact of the scheme on the journey time reliability will be assessed in-line with the relevant guidance from TAG Unit A1.3.

5.8.3 TAG Unit A1.3 recommends using an urban variability approach, which is a forecast of the coefficient of variation of journey time from distance and congestion for flows in the urban area.

5.8.4 The urban variability approach is suitable for areas with readily available alternative urban routes and it is most suited for the study area. It is proposed to use the urban variability model approach for quantified assessment developed by Hyder et al method (described in TAG Unit A1.3).

5.8.5 As recommended in the guidance, the reliability benefits will not be included in the AMCB table and thus will not be included in estimates of the initial Net Present Value (NPV) and BCR for the Scheme. However, the assessment will be included in the Appraisal Summary Table (AST) and be considered in the adjusted BCR and assessment of the overall VfM of the Scheme.

5.9 Distributional Impacts

5.9.1 The assessment of distributional impacts resulting from the construction of the scheme will be assessed in accordance with TAG Unit A4-2.

5.10 Wider Economic Impact Assessment

5.10.1 The improved connectivity and accessibility provided by the Scheme, particularly to the Hereford Enterprise Zone (HEZ) will be likely to have a productivity impact in the local area and region, despite the area containing relatively low levels of professional and managerial employment in comparison to other areas in England.

5.10.2 These productivity impacts are likely to be experienced as TAG Level 2 impacts. These are impacts where there are productivity improvements though land-use in the study area remains static. The productivity impacts are likely to be experienced through the following mechanisms:

- static clustering impacts (agglomeration impacts) – assuming land-use does not change (i.e. land-use is fixed);
- output change in imperfectly competitive markets – application of an uplift to business user benefits; and
- labour supply impacts – comprising employment impacts and related GDP and taxation impacts.

5.10.3 The appraisal will be undertaken in alignment with TAG Units A2.1 - 2.4 and M5.3. This additional benefit would be added into the calculations for an adjusted BCR also including journey time reliability benefits. WITA software will be used to undertake the assessment.

5.10.4 The approach to wider impacts will cover the following areas:

- Calculation of agglomeration. The approach to calculating this is set out in TAG Unit A2.1 paragraphs 4.1.1 to 4.1.7.
- Calculation of the effect of output change in imperfectly competitive markets. This requires the Transport Economic Efficiency (TEE) analysis using the approach set out in TAG Unit A2.1 paragraphs 4.1.8 to 4.1.10.
- Calculation of the tax revenue from labour market impacts. This requires calculating the labour supply impact and the move to more productive jobs impact using the approach set out in TAG Unit A2.1 paragraphs 4.1.8 to 4.1.25.

5.10.5 The wider economic benefits from the elements above will be captured over a 60-year appraisal period, consistent with the approach adopted for the assessment of other benefits.

Appendix K – Appraisal Summary Table

Appraisal Summary Table

Date produced:	12/06/2026	**Contact:**	
Name of scheme:	Hereford Western Bypass Phase 1	**Name**	Gary MacDonnell
Description of scheme:	Construction of a 60 mph single carriageway connecting to the existing A49/B4399 roundabout at its Eastern end. At the Western end a new roundabout with the A465 will be constructed with a new road (The Clehonger Link) linking more directly onto the B4349 to Clehonger that replaces the existing A465/B4349 junction.	**Organisation**	Herefordshire Counci
Scenario:	Core Scenario, post-opening impacts	**Role**	Promoter/Official

Impacts		Summary of key impacts	Assessment			
			Quantitative	Qualitative	Monetary £(NPV)	Distributional 7-pt scale/ vulnerable grp
Economy	Business users & transport providers	Business user travel time benefits of £16.9m (PV) broken down into freight (£9.6m) and business car/LGV (£7.4m). Total business benefits are dominated by travel time savings (Vehicle operating costs -£1.7m) with greater than half of benefits from trips internal to Herefordshire.	**Value of journey time changes(£)** £16.949m **Net journey time changes (£)** 0 to 2min: £6.457m; 2 to 5min: £6.827m; > 5min: £3.665m		£16.949m	
	Reliability impact on Business users	Reliability benefits of £0.38m for business users (HGV £27k, LGV £178k, Employers Business £175k). Assessed using TAG A1.3 urban road methodology on an Area of Influence (AoI) cordon.			£380,000	
	Regeneration	Not separately assessed. Regeneration impacts captured through wider impacts (WITA).				
	Wider Impacts	WITA assessment: agglomeration £727k (dominated by producer services and consumer services), output change in imperfectly competitive markets £2.1m, labour supply impacts £1.1m. Total wider impacts £3.9m.			£3.9m	
Environmental	Noise	"Major (>=5 dB) increases in road traffic noise are expected at receptors in close proximity to the proposed bypass. This area of major increase is however sparsely populated. Despite being close to the bypass, receptors along Haywood Lane are expected to experience a minor decrease in road traffic noise. This is due to fewer vehicles using this road with the scheme in place. Major decreases in road traffic noise are expected along the closed section of the B4349. Due to the introduction of the scheme, minor increases in road traffic noise are expected along the B4349 between the scheme and Clehonger. This increase continues from Clehonger along the B4352 into Madley. From Madley minor increases in road traffic noise are expected along Bage Pitch Road up to the A438. This is due to re-routing of traffic which would have otherwise used an existing route.	Households experiencing increased daytime noise in forecast year: 281 Households experiencing reduced daytime noise in forecast year: 210 Households experiencing increased night time noise in forecast year: 72 Households experiencing reduced night time noise in forecast year: 135"		£960,252	
	Air Quality	The air quality study area is located within Herefordshire Council (HC). HC have declared two air quality management areas (AQMA) for exceedances of the NO_2 annual mean objective. However, the Scheme is located outside of these, located approximately 2.5 km from the closest AQMA (Hereford AQMA). The nearest monitoring site to the Scheme reported an annual mean NO_2 concentration of 20.3 $\mu g/m^3$ in 2024. This is diffusion tube site 79, which is located approximately 2.3 km to the north of the Scheme, at a roadside location on Belmont Road in Hereford. The Scheme is located in a rural area to the south of Hereford, meaning that monitored concentrations are therefore likely to be lower than those reported at the nearest monitoring site. With the scheme operational, both decreases and increases in pollutant concentrations are anticipated, due to changes in traffic flows and road layouts associated with the Scheme, which could lead to improvements or deteriorations in air quality, respectively. The largest increases in traffic flows were seen on roads located within or in close proximity of the Scheme. These include the southern section of the A465, on approach and leaving the proposed roundabout within the scheme, as well as the B4349 and a new bypass, located between the A49/B4399 roundabout and the proposed roundabout on the A465. There are properties located within 20 m and 50 m of these roads, which could experience a deterioration in local air quality. However, when considering the magnitude of the change in traffic flow, the existing air quality, the impacts are not likely to be significant. The largest decreases in traffic flows were seen on a rural road off the A49 and along the northern section of the A465, as it travels through Belmont towards Hereford. There are properties located within 20 m of these roads, which could experience an improvement in local air quality. However, when considering the magnitude of the change in traffic flow, the existing air quality, the impacts are not likely to be significant. Overall, the air quality impacts are considered to be not significant.	"In the opening year: For PM2.5, air quality would be improved at 992 properties, stay the same at 1,047 properties and worsen at 398 properties. For NO2, air quality would be improved at 1,688 properties, stay the same at 226 properties and worsen at 523 properties. Net Total Assessment score for PM2.5: -7.40 Net Total Assessment score for NO2: -35.20 In the design year: For PM2.5, air quality would be improved at 1,045 properties, stay the same at 1,072 properties and worsen at 320 properties. For NO2, air quality would be improved at 876 properties, stay the same at 1,282 properties and worsen at 279 properties. Net Total Assessment score for PM2.5: -13.20 Net Total Assessment score for NO2: -4.30"		-£80,014	
	Greenhouse gases	Total CO2e decrease of 4,040 tonnes over 60 years (non-traded -3,975t, traded -65t). Opening year decrease 260 tonnes. Assessed using VECAT v1.01 and TAG GHG workbook (November 2025).	Change in non-traded carbon over 60y: -3,965t Change in traded carbon over 60y (CO2e): -65t		£865,000	
	Landscape	Impacts on the landscape character may arise from the construction of the Scheme with the loss of hedgerows and woodland and changes to the field pattern. Landform would be altered due to road embankments and cuttings. There would be a loss of tranquility with the Scheme, although taking account of the existing roads and railway it is considered that the impact would be only slight adverse overall.	Not applicable	Slight Adverse (negative) effect	Not applicable	
	Townscape	Not applicable	Not applicable	-		
	Historic Environment	"Overall, there would be permanent moderate adverse impacts to Dinedor Camp Scheduled Monument (NHLE:1001758), permanent slight adverse impacts to Bullingham Old Church Scheduled Monument (NHLE: 1005357) and its dual designation the Grade II listed Ruins of Church of St Peter About 20 Yards South of the Old Vicarage (NHLE: 1348848) as a result of changes to the setting of these assets during operation of the Scheme. There would be permanent and long term slight adverse impacts to the Grade I listed Church of All Saints' (NHLE:1301135) which will change its setting. There would also be permanent adverse impacts the Grade II* Listed Buildings which will change their setting and temporary setting impacts to the Listed Buildings during construction. There is likely to be a moderate adverse impact to the "Milestone at NGR SO 475373' (NHLE: 1167452) due to the proximity of the asset to the Scheme during construction.		Moderate Adverse (negative) effect		
	Biodiversity	The Proposed Development will result in a Large Adverse effect on ancient woodland habitat - Grafton Wood ASNW. The Proposed Development would result in the loss of individual trees, hedgerows, scrub, woodland, agricultural land, and pasture grasslands. The landscaping design results in a net gain in hedgerows, scrub, and new woodland habitat (though created woodland will not have the same environmental function or value as lost ancient woodland, defined as irreplaceable habitat), and there would be a net loss of agricultural land and pasture grasslands. Due to the embedded mitigation measures, the Proposed Development will have a Slight Adverse to Neutral impact on protected species. There is a Slight Adverse impact anticipated at several LWS. The ARN of the Proposed Development and potential for increase in pollutant and nitrogen deposition will negatively impact two SSSIs, several LWS, priority habitat and several designated ancient woodland sites.	Not applicable	Large Adverse (negative) effect	Not applicable	
	Water Environment	The proposed scheme is entirely located in Flood Zone 1,and therefore the potential impacts in relation to flood risk are considered to be low. For scheme areas at 'medium' to 'high' surface water flood risk, further assessment will be undertaken as part of a site specific Flood Risk Assessment (FRA). One new crossing of a surface waterbody is proposed and it is expected that mitigation measures will be in place to mitigate any impacts on nearby surface waterbodies, therefore there may be a slight adverse impact on surface water quality.		"Slight Adverse (surface water quality) Slight Adverse (flood risk) Neutral (groundwater quality)"		
Social	Commuting and Other users	Commuting benefits £12.0m, Other benefits £38.5m (total £50.5m). Travel time savings comprise 69% of total benefits. Benefits are concentrated in the 0–2 minute and 2–5 minute travel time saving categories.	**Value of journey time changes(£)** £34.725m **Net journey time changes (£)** 0 to 2min: £16.244m; 2 to 5min: £17.474m; > 5min: £1.008m		£34.725m	
	Reliability impact on Commuting and Other users	Reliability benefits for commuting (£472k) and other users (£862k). Assessed using TAG A1.3 urban road methodology on an Area of Influence (AoI) cordon.			£1.334m	
	Physical activity	Not separately assessed.		-		
	Journey quality	Not separately assessed.		-		
	Accidents	CoBA-LT assessment over 60 years. 1.1 more fatalities, 1.0 more serious, 11.1 fewer slight casualties. Benefits from traffic transferring to Phase 1 (lower accident rates).	17.3 fewer PIAs; 1.1 more fatalities; 1.0 more serious casualties	Adverse (negative)	-£1.009m	
	Security	Neutral impact. Highway scheme with no significant changes to public transport waiting/interchange facilities.		Neutral impact		
	Access to services	Neutral impact. No proposals to relocate services due to the scheme.		Neutral		
	Affordability	Changes due to re-routeing and reduced congestion; Reduced congestion in South Wye Beneficial Impact; Longer west-east journeys via the Scheme Adverse Impact. Overall Slight Adverse.		Slight Adverse (negative)		
	Severance	No impact		Neutral		
	Option and non-use	Not applicable. Highway scheme with no service closures or significant PT component.		N/A		
Public Accounts	Cost to Broad Transport Budget	Cost to broad transport budget has been developed from cost estimates provided from the D&B contractor and re-based and discounted to 2023, and converted to market prices in line with TAG A4.2 guidance. The costs also include for an Optimism Bias allowance.			£39.6m	
	Indirect Tax Revenues	Reduction in indirect tax revenues of £7,490k (PV) post-opening, due to changes in fuel consumption patterns.			-£7.490m	

Appendix L – Team CVs

Gary MacDonnell – Infrastructure Programme/Project Manager

Tel: ..... email: .....

Profile/Summary

Experienced Programme Manager with over 20 years of leadership in delivering complex infrastructure and regeneration projects across the public sector. Proven track record in managing multi-million-pound capital programmes, including transport, education, and cultural investments. Skilled in stakeholder engagement, strategic planning, and governance, with expertise in securing and managing funding from national bodies such as Homes England, Network Rail, and the Department for Transport. Adept at leading cross-functional teams and driving delivery through robust programme management methodologies (Prince2, MSP). Passionate about infrastructure-led development and committed to promoting sustainable, high-quality solutions that support economic growth and community wellbeing. I think my enthusiasm will match your ambition. I'm comfortable and articulate with corporate executives or senior politicians.

Key Skills

Strategic & Programme Leadership

- Leading major infrastructure programmes
- Oversight of multi-million-pound bids and contracts
- Driving delivery across complex capital programmes

Project & Capital Programme Management

- Practitioner in Prince2 and MSP
- Proven success in setting up and leading PMOs to improve delivery
- Experience managing diverse capital projects across differing sectors

Stakeholder Engagement & Partnership Building

- Liaising with Government Ministers, MPs, Homes England, Network Rail, and LEPs
- Building collaborative relationships across public and private sectors
- Leading cross-organisational teams and managing external consultants

Business Case Development & Funding

- Leading business case production for Local Growth Fund and HIF bids
- Advising on feasibility and preparing bid documentation for external funding agencies

Public Sector Expertise

- Over 20 years in local government and public sector roles
- Deep understanding of governance, compliance, and strategic planning

Facilities & Asset Management

- Experience in property services and facilities management
- Asset strategy formulation and capital investment planning

Performance & Risk Management

- Implementing systems for visibility, accountability, and risk mitigation
- Monthly highlight reporting and programme-level risk management

Training & Certifications

- Prince 2 & MSP Practitioner
- IOSH Managing Safety
- NEBS Management Programme

Career Highlights

- **Secured £410 million in grant funding** from Homes England by leading a multidisciplinary team through a competitive bidding process. The funding supports six major infrastructure projects tied to housing growth across Essex.
- **Programme Manager for a transformative infrastructure portfolio**, including two new roads, a mainline rail station, and upgrades to existing transport networks to promote modal shift.

- **Lead Client Project Manager for Beaulieu Park Station**, a £180 million flagship project where Essex County Council held the risk as funder of last resort. The station is scheduled to open in October 2025.
- **Established the Essex County Council Project Management Office (PMO)** in response to historic underperformance in capital delivery. Since its inception, delivery rates improved from under 50% to over 80%, reaching 90% in peak years.
- **Led capital delivery transformation at Southend Council**, increasing programme performance from under 60% to over 80%. Introduced a client-side project management model that enhanced productivity and better leveraged professional expertise.
- **Commissioned and led the 'Futureplan' studies** for the North-East Quarter of the museum, uncovering original architectural features and enhancing gallery spaces for public engagement.

Career History / Work Experience

Herefordshire Council (interim Contract) – Hybrid Working
Major Transport Infrastructure Senior Project Manager.
Dec 2025 - Present

- To be responsible for leading the planning, design and construction of the Council's major transport infrastructure project - the Western Bypass phases, undertaking contract management of the professional services consultants and contractors; managing the procurement for the design and construction phases of the project, seeking planning permissions, overseeing land purchase negotiations and the development of Green Book compliant businesses cases.
- To be responsible for preparing regular reports on the development and progress of schemes, particularly the Western Bypass, to the Senior Responsible Officer and relevant Board(s); and proactively monitor its overall progress through the collation of project highlight reports
- To be responsible for keeping the Cabinet Member for Transport and Infrastructure updated on progress and delivery timelines; as well as assisting management in briefing the Leader and Cabinet; preparing responses to Scrutiny, Cabinet and Council questions.
- To lead the development of project concepts using the council's project management framework to ensure that they align with the County Plan, that objectives and benefits are identified, recorded and that documentation is evidenced.
- To be accountable for supporting the delivery of the assurance process within the programme and oversee the programme risk and issues log
- To be responsible for providing support and guidance of project management methodologies through a peer support network

Essex County Council (Interim Contract) – *Chelmsford*
Programme Manager, Highways & Infrastructure Capital Programme
Oct 2015 – December 2025
Leading strategic infrastructure programmes to support economic growth across Essex, with a focus on transport, housing, and sustainable development.

- Directed cross-organisational teams to successfully develop and submit three Housing Infrastructure Fund (HIF) bids, securing a total of **£410 million** in grant funding.
- Oversaw the commissioning and contracting of two HIF programmes, managing governance, resource planning, and programme-level risk.
- Programme lead for **Beaulieu Park Station**, a £180 million rail infrastructure project. Responsibilities include stakeholder engagement with Government Ministers, MPs, Homes England, Network Rail, Greater Anglia, and the Department for Transport.
- Acted as ECC's transportation lead on **Nationally Significant Infrastructure Projects (NSIPs)** including M25 Junction 28 and the Lower Thames Crossing and contributed to the A12 Development Consent Order response.
- Led ECC's input into the **Local Growth Fund programme** in partnership with the South-East Local Economic Partnership (SELEP), including business case development and strategic oversight.
- Provided strategic direction to internal and external project managers delivering the Highways and Transportation Capital Programme.

- Delivered political and service priorities through annual plans, ensuring proactive risk management and alignment with council objectives.
- Built collaborative relationships with external delivery partners, fostering shared understanding of long-term infrastructure development.
- Championed sustainable transport integration in major road schemes, enhancing connectivity for walking, cycling, and public transport.

Essex County Council (Interim Contract) – *Chelmsford*
Head of Capital Programme Management Office (PMO)
Aug 2014 – Oct 2015
Established and led ECC's PMO to address underperformance in capital programme delivery, transforming outcomes and embedding best practice.

- Designed and implemented a PMO framework that increased capital programme delivery from **~50% to 94%** in 2014/15.
- Assessed programme deliverability and introduced targeted interventions to drive performance.
- Ensured full organisational visibility and accountability for capital programme outcomes.
- Standardised processes and procedures across planning, profiling, and risk management.
- Provided expert challenge and support to project planning, enhancing delivery confidence.
- Reported delivery performance and risks to senior leadership, enabling informed decision-making.
- Supported development of innovative proposals and robust business cases.
- Coordinated the Capital Programme Members Board and introduced monthly highlight reporting.
- Benchmarked ECC's approach against sector best practice to continuously improve systems and processes

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Victoria & Albert Museum – *South Kensington*
Programme Manager
Jan 2012 – Aug 2014
Led the delivery of the museum's **FuturePlan capital programme**, overseeing strategic investment projects aimed at enhancing visitor experience and preserving architectural heritage.

- Planned and managed all capital works under the FuturePlan programme, ensuring coherent delivery and alignment with financial and non-financial objectives.
- Acted as Project Director for major capital investment projects, managing complex stakeholder relationships across internal departments and external partners.
- Oversaw risk, opportunity, and stakeholder engagement across the programme, ensuring alignment with institutional goals.
- Led change management initiatives to support organisational adaptation and benefit realisation.
- Managed the museum's project management contract, ensuring adherence to best practice and standardisation of processes across project teams.
- Maximised opportunities and mitigated risks across interdependent projects, maintaining programme integrity and strategic alignment.
- Line-managed project managers, the in-house Quantity Surveyor, and Storage Coordinator, fostering a high-performance delivery culture.

Southend Borough Council – *Southend*
Group Manager, Property and Regeneration
Sept 2008 – Dec 2011
Directed the Council's capital regeneration and public realm programmes, driving strategic investment and operational transformation.

- Programme Manager for a **£25 million public realm investment** under MSP methodology.
- Led a multidisciplinary team of 28 professionals delivering capital programmes across schools, public buildings, and infrastructure (excluding housing).
- Allocated internal and external resources to ensure timely and cost-effective delivery of capital projects.
- Advised on feasibility and funding strategies for large-scale capital investments, preparing bids for external funding agencies.
- Championed cross-departmental collaboration to enhance service delivery and organisational performance.

London Borough of Waltham Forest – *Walthamstow*
Major Works Programme Manager
Apr 2007 – Sept 2008
Delivered education infrastructure projects through strategic partnerships and procurement frameworks.
- Managed in-house project teams delivering capital works via traditional and partnership procurement models.
- Lead council representative for **Building Schools for the Future** and **Primary Capital Programme**, working closely with national agencies.
- Oversaw strategic programming of capital schemes aligned with council priorities.
- Ensured robust project management processes were in place for effective delivery and reporting.

Earlier Career
A variety of roles, two at the Royal Borough of Kensington & Chelsea and one at the London & Continental Stations and Property (based in St Pancras Station) working on small building related projects and facilities management.

Education

Surrey University 1994 to 1997
2:1 Bsc (hons) Majoring in Geography.
St Peters School (RC) Bournemouth, Dorset 1992 to 1994
A Levels: One A, 2 B's and one C grade.

Personnel Details

Address: .....
Driving Licence: Full (clean)
References: Available on request.



Scott A Tompkins

PROFILE

Highly experienced highways and transport leader and professional, adept at working at the highest level of senior management within a local government setting. Strong leadership capabilities and proven expertise in change management and strategic planning. Successful in managing large teams and diverse areas of responsibility. Skilled in managing extensive budgets and specialist in report writing. Guest speaker at several highways maintenance and asset management conferences in the UK and has taken an active role in advocating asset management principles in the UK highways industry with involvement with national and regional groups. Active involvement with ADEPT and CIHT; Member of the Midlands Highways Alliance Executive Board and previous chair of the Southwest Highways Alliance.

CAREER HIGHLIGHTS

- Lead on development, design and delivery of several major transport infrastructure projects
- Developed and managed large place based service delivery teams
- Delivered a restructure and comprehensive set of improvements to Herefordshire's £65m capital delivery programme
- Guided the transformation of highway services and the procurement of a new long term maintenance contract including innovative service delivery and commercial arrangements
- Developed the business case and delivered an invest-to-save LED street lighting project

RELATED PROFESSIONAL EXPERIENCE

Infrastructure Delivery Director (interim): Herefordshire Council – Oct 2024 to Present

- Responsible for delivery of a £65m capital programme including key major transport projects.
- Senior responsible officer for over 20 capital infrastructure projects including the development of a £35m Phase One of the Hereford Western Bypass, £12m Transport Hub and £20m of Leveling Up Funded active travel improvements.
- Leading on the development of the strategic outline business case for future phases of the Hereford Western Growth Corridor (bypass).

Key Achievements

- Managed the restructuring of the Project Management Office creating a renewed focus on development of the internal intelligent client team with engineering and construction skills.
- Oversaw the completion of design work, tendering and construction of the £12m Hereford Railstation Transport Hub. (delivered on time and on budget)
- Led on the development of a longterm Professional Service Contract (£96m), taking it through governance processes and tendering.
- Led on the development and design of the Hereford Bypass Phase One, due to start construction in December 2026.

Director – Environment, Transport and Planning: Warwickshire County - 2019 to Aug 2024

- Responsible for County Highways, Planning Delivery, Transport Delivery, Trading Standards and Community Safety, Engineering Design Services and Coventry, Solihul and Warwickshire Resiliency team. This encompassed over 480 staff, ~£50m revenue and ~£65m capital spending.
- Member of the senior management team made up of four Executive Directors and 13 Directors.
- Providing strategic direction for service areas, managing five heads-of-service.

Key Achievements

- Implemented a comprehensive transformation programme which redesigned the service areas and recruited to key Tier 3 and Tier 4 roles.
- Successfully led the council's resiliency service throughout the Covid Pandemic transforming service delivery to meet the requirements of locks downs and recovery.

- Developed improvement transformation projects around Highways Development Management and S278 process engaging developers and district/borough planning departments.
- Led a significant project to improve the efficiency and delivery of Home to School Transportation.
- Expanded traded services around fleet management, archaeology, ecology, tree maintenance and calibration services ensuring these services were self-sufficient.

Lead Commissioner- Highways Authority: Gloucestershire County Council – 2013 to 2019

- Responsible as head of service for all highway services circa £60m per year including Highways Commissioning, Highways Development Management, Network and Traffic Management, Parking, PROW, Streetworks, Major Project and Highway Records teams.
- Management of governance and political arrangements as a third-tier senior manager assisting with translating strategic objectives with cabinet members
- Providing strategic vision and direction for service area as well as influencing and active involvement with strategic planning and transport teams; over 90 direct and 300 indirect staff.

Key Achievements

- Guided the transformation of highway services and procurement of the latest highways contract including innovative service delivery and commercial arrangements as well as achieving more than 37% savings since 2009.
- Oversaw the development and delivery of LEP Growth Funded major schemes including the £8m Elmbridge Court Roundabout
- Development, procurement and delivery of an invest-to-save LED Street Lighting project.

Network Manager: Gloucestershire County Council – 2008 to 2013

- Managing 69 staff with responsibility for all highway assets in Gloucestershire including all bridge, drainage, carriageway, footway and street lighting assets
- Management responsibility for £4.6m revenue and £24m capital budgets.
- Direct line management of the following teams: transport monitoring (traffic engineering), highway safety inspectors, tree inspectors, forward programme (capital programme development), improvement schemes engineering development, bridges, geotechnical, drainage and street lighting engineers.

Key Achievements

- Developed a high-quality Transport Asset Management Plan (TAMP) including associated highway strategy, policy, design guidance and operational standards documents.
- Guided the development of an internal project management database system which is now used to manage over £40m of capital expenditure.

Asset Data Manager: Gloucestershire County Council – 2006 to 2008

- Member of the Senior Management Team within the unique Gloucestershire Highways partnership between GCC and Atkins
- Management of the transport monitoring, pavement engineering, road condition data and highway safety inspection teams.
- Directly responsible for ensuring that survey works were undertaken and data collected in order to support and maintain the authority's SATURN, Visual TM, VISSIM, Paramics models.

Key Achievements

- Wrote the successful £16.5m bid for DfT grant funding to support recovery in Gloucestershire following the devastating 2007 flooding events.

Transport Monitoring Team Leader: Gloucestershire County Council – 2002 to 2006

- Management of the monitoring team and deputy transport planning manager
- Responsible for collecting traffic survey data to support the Local Transport Plan including the development of an annual Transport Household Survey
- Responsible for maintaining all transport planning models (SATRUN model)

Key Achievements

- Was promoted to Deputy Manager Transport Planning to assist new Transport Planning Manager in transition to new highways and planning arrangements.

QUALIFICATIONS

Graduate Work	University of Bath MBA program, (one third completed) Seattle University, Seattle, WA, MBA program, 16 credits completed
University	Bachelor of Arts: double major Business Administration and Journalism Western Washington University, Bellingham, WA,

Fellow of Chartered Institute of Highways and Transportation
LGA Highways Peer Reviewer
IHE Highways Asset Management certificate
Highways Law Course
ADEPT Leadership Programme
Solace Aspiring Director

REFERENCES

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My ref: MER/ks

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Private & Confidential

To whom it may concern

Employment Reference – Scott Tompkins

I can confirm that Scott was employed by Warwickshire County Council from 18th March 2019 to 16th August 2024, most recently as Director of Environment, Planning and Transport. In this role, Scott was responsible for:

- Highways Maintenance and Schemes
- Highways Development Management
- Network Management
- Engineering Design Services
- Community Safety, including Gypsy & Traveller Services and Prevent
- Trading Standards and Animal Health
- Environmental Services, including Flood Risk, Archaeology, Forestry and Ecology.

In terms of projects, Scott's contributions and achievements include:

- Led on the implementation of Warwickshire's Tree Nursery
- Established a high performing highways maintenance contract
- Delivered multiple complex highways schemes.

Scott is a committed senior manager who acts with integrity and values the contribution of his team. As a leader, Scott developer strong relations with other local authorities, developers and strategic public sector partners and is well connected within the local government community, both regionally and nationally.

I am pleased to provide this reference for Scott, and, on behalf of Warwickshire County Council, I wish him every success in his next venture.

This reference is given to the addressee in confidence and only for the purposes for which it was requested. It is given in good faith and on the basis of the information available to the employer at the time it is given, but neither the writer nor Warwickshire County Council accepts any responsibility or liability for any loss or damage caused to the addressee or any third party as a result of any reliance being placed on it.

Yours sincerely

Mark Ryder, Executive Director for Communities

Working for Warwickshire

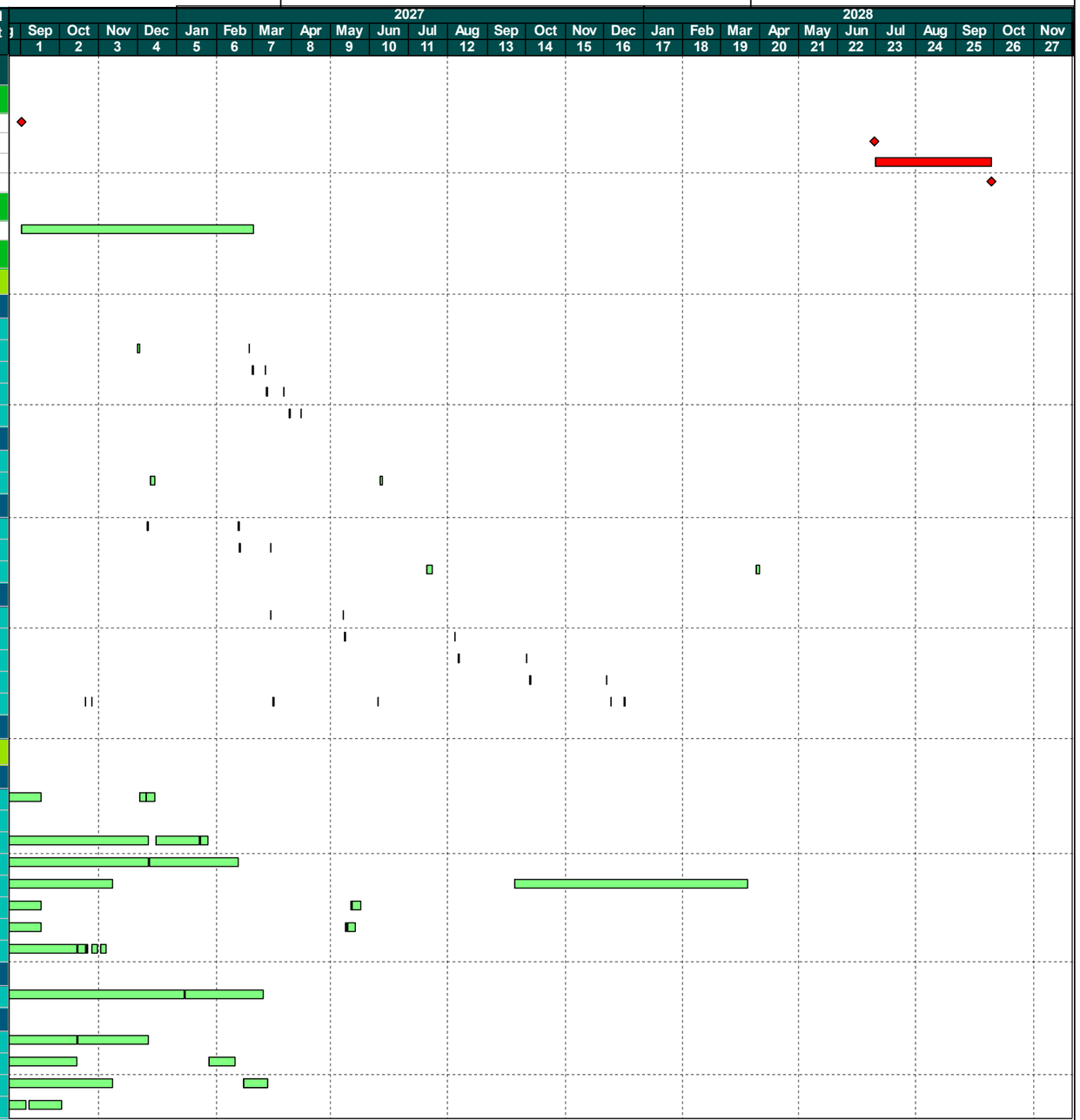
Appendix M – Project Programme

Herefordshire Council
Hereford Western Bypass Phase 1

Actual Level of Effort
LoE Actual
Actual Work
Remaining Work
Critical Remaining Work
Milestone
Critical Milestones
Milestone
% Complete

GRAHAM

Activity ID	Activity Name	No of Days	Start	Finish	Total Float
Hereford Western Bypass Phase 1 TS01		564	19-Jun-26	29-Sep-28	0
Contract Data - Construction Phase		513	01-Sep-26	29-Sep-28	0
107474-CD-1000	Anticipated Construction Contract Award	0	01-Sep-26*		0
107474-CD-1030	Planned Completion Date	0		29-Jun-28	0
107474-CD-1040	Contractors Terminal Float	65	30-Jun-28	29-Sep-28	0
107474-CD-1050	Completion Date	0		29-Sep-28*	0
Procurement		120	01-Sep-26	01-Mar-27	46
107474-PC-PRO-1000	S05_Railway Underbridge: Procurement of Beams	120	01-Sep-26	01-Mar-27	46
Construction		471	19-Jun-26	19-May-28	28
Traffic Management		439	19-Jun-26	31-Mar-28	60
A49		175	21-Jul-26	08-Apr-27	302
Lane Closure_STATS Investigation: Northbound Traffic - Northbound [Outer] Lane		7	21-Jul-26	29-Jul-26	386
Lane Closure_Construction Commencement: Northbound Traffic - Northbound [Outer] Lane		54	01-Dec-26	26-Feb-27	302
Lane Closure: Northern & Southern Splitter Islands - Outer Lane Remainder		9	01-Mar-27	11-Mar-27	302
Lane Closure: Northbound Traffic - Eastbound Right Turn [Inner] Lane		10	12-Mar-27	25-Mar-27	302
Temporary Traffic Lights [Out of Hours] - Surfacing		8	30-Mar-27	08-Apr-27	302
Grafton Lane		240	19-Jun-26	10-Jun-27	259
SU-21: Installation of Permanent BT Ducting Route		29	19-Jun-26	29-Jul-26	470
Temporary Road Closure		116	11-Dec-26	10-Jun-27	259
Haywood Lane		317	09-Dec-26	31-Mar-28	60
SU-22: Divert BT Via Temporary Overheads		42	09-Dec-26	18-Feb-27	82
SU-29: Water Main Diversion		17	19-Feb-27	15-Mar-27	82
Temporary Diversion Road		175	15-Jul-27	31-Mar-28	60
A465 Abergavenny Road		288	21-Oct-26	17-Dec-27	124
Eastbound Lane Closure: Western Approach Ch.0m-Eastern Approach Ch.130m		39	15-Mar-27	11-May-27	16
Westbound Lane Closure: Eastern Approach Ch.0m-Western Approach Ch.0m		62	12-May-27	06-Aug-27	16
Eastbound Lane Closure: Eastern Approach Ch.130m-Eastern Approach Ch.0m		39	09-Aug-27	01-Oct-27	16
Lane Closure: Western & Eastern Splitter Islands Construction		45	04-Oct-27	03-Dec-27	91
Temporary Traffic Lights [Out of Hours]		288	21-Oct-26	17-Dec-27	124
B349 Clehonger Road		3	31-Jul-26	04-Aug-26	95
Statutory Undertakers		418	09-Jul-26	22-Mar-28	39
BT Openreach		409	22-Jul-26	22-Mar-28	30
SU-19: A49 Roundabout - Existing 4 Way Ducting Lowered/Protected		83	19-Aug-26	14-Dec-26	299
SU-20: A49 Roundabout - Determine Line & Level of Existing Ducts		5	22-Jul-26	28-Jul-26	386
SU-21: Grafton Lane - Divert Existing O/H Line to U/G Duct Outside of Underpass Structure		123	22-Jul-26	25-Jan-27	56
SU-22: Haywood Lane - Install Temporary O/H Line & Divert Service from Existing Alignment		120	19-Aug-26	17-Feb-27	82
SU-23: Haywood Lane - Complete Permanent Connection & Decommission Temporary O/H Service		389	19-Aug-26	22-Mar-28	30
SU-24: A465 - Lower & Protect Existing Ducting		185	19-Aug-26	24-May-27	68
SU-25: A465 Field Access - Protect Existing Ducting with Concrete Pad		183	19-Aug-26	20-May-27	70
SU-26: B4349 & Pykeways Access Road - Install 4no Ducts B4349, Dismantle & Replace Existing O/H Line		57	19-Aug-26	06-Nov-26	92
Cadent		134	19-Aug-26	09-Mar-27	15
SU-31: B4349 NMU - Diversion Required_Scope TBC		134	19-Aug-26	09-Mar-27	15
DWR Cymru [Welsh Water]		137	19-Aug-26	12-Mar-27	82
SU-27: Ch.160m-Ch.180m - Abandon Length of Existing Line & Divert with 2no 630mm Dia Mains		80	19-Aug-26	09-Dec-26	122
SU-28: Grafton Lane Ch.890m - Divert Existing 90mm Dia Main Around Underpass Structure		118	19-Aug-26	15-Feb-27	56
SU-29: Haywood Lane Ch.2080m - Divert Existing 5" Main with 160mm Dia Temp Then 225m Dia Perm Main		137	19-Aug-26	12-Mar-27	82
SU-30: Clehonger Rd Ch.0m-Ch.240 - Adandon Existing 6" Main & Install 180mm Dia Mains Diversion		32	19-Aug-26	02-Oct-26	73



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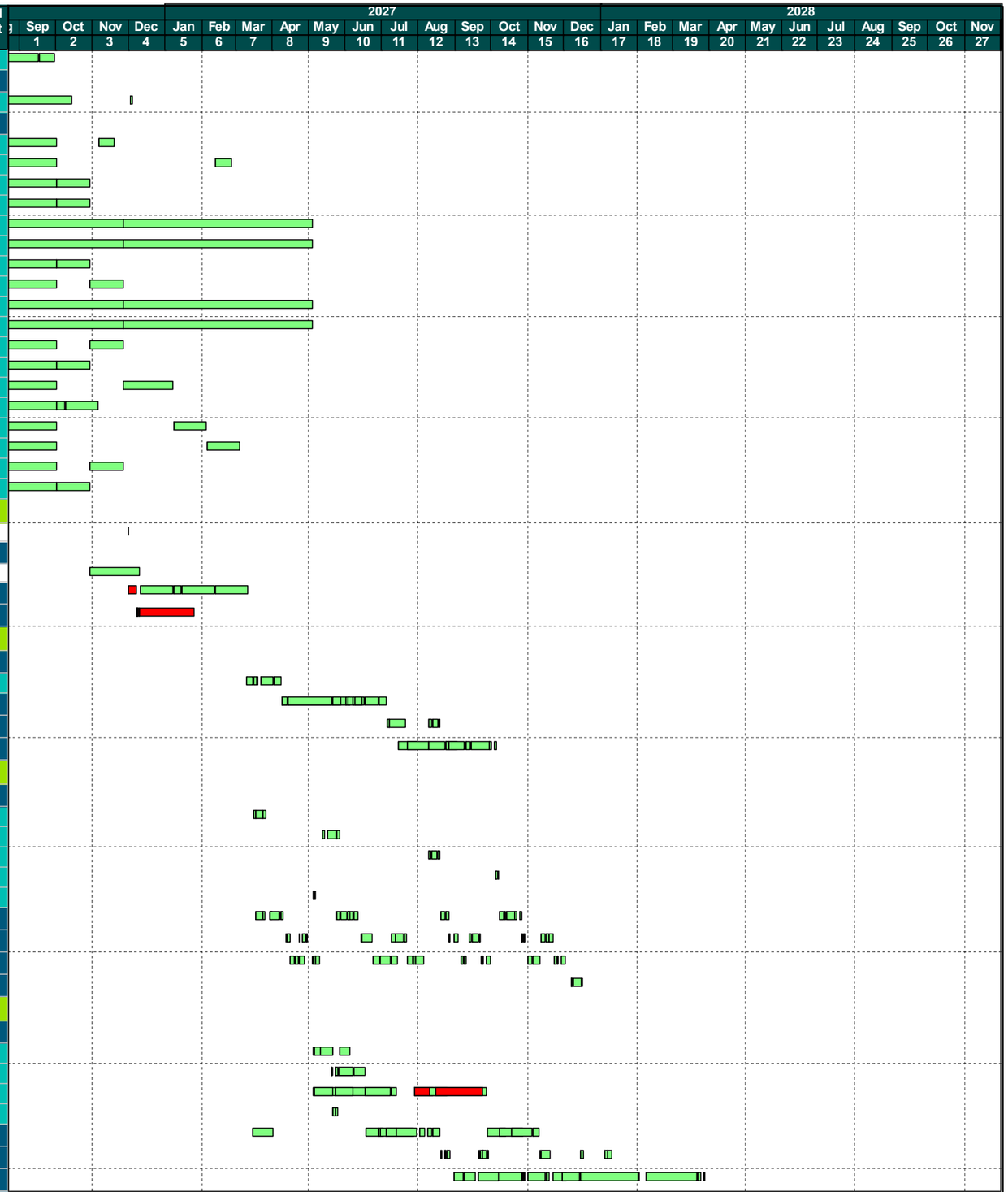
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Activity ID	Activity Name	No of Days	Start	Finish	Total Float
SU-32: Ch.180m - Protection of Remaining Main Within Compound Area		30	19-Aug-26	30-Sep-26	84
Highways England [Street Lighting]		77	19-Aug-26	04-Dec-26	351
SU-18: A49 Roundabout - Disconnection & Dismantle Street Lighting to be Removed		77	19-Aug-26	04-Dec-26	351
Western Power Distribution		200	09-Jul-26	04-May-27	257
SU-01A: A465 - FP01 Connection		95	09-Jul-26	19-Nov-26	43
SU-01B: A49 - FP02 Connection		155	09-Jul-26	25-Feb-27	302
SU-02: Ch.210m-Ch.620m - Dismantle 410m 11kV O/H Line		80	09-Jul-26	29-Oct-26	151
SU-03: Ch.210m-Ch.620m - Install 2no 11kV Pole Terminals & 420m 11kV U/G Cable		80	09-Jul-26	29-Oct-26	151
SU-04: Ch.750m & Ch.805m - Install 2no 66kV Poles		200	09-Jul-26	04-May-27	40
SU-05: Ch.770m - Dismantle 2no 66kV Poles		200	09-Jul-26	04-May-27	40
SU-06: Ch.2300m - Install 1no 11kV Pole		80	09-Jul-26	29-Oct-26	144
SU-07: Ch.2300m-Ch.2340m - Reposition Pole Mounted Substation & Tie Into Existing Feed		100	09-Jul-26	26-Nov-26	144
SU-08: Ch.2580m - Dismantle 1no 66kV Poles		200	09-Jul-26	04-May-27	44
SU-09: Ch.2520m & Ch.2620m - Install 2no 66kV Poles		200	09-Jul-26	04-May-27	44
SU-10: Ch.2700m-Ch.2860m - Dismantle 170m 11kV O/H Line		100	09-Jul-26	26-Nov-26	99
SU-11: Ch.2700m-Ch.2860m - Install 2no 11kV Pole Terminals & 170m 11kV U/G Cable		80	09-Jul-26	29-Oct-26	99
SU-12: S/W A465 Roundabout - Dismantle & Reposition 1no 11kV Pole		120	09-Jul-26	07-Jan-27	18
SU-13: Forest View-FP01 - Site Contractor to Install U/G Cable		85	09-Jul-26	05-Nov-26	43
SU-14: Forest View - Replace 25kVA Pole Mounted Tranformer with 50kVA Unit & Connect to Feed		140	09-Jul-26	04-Feb-27	18
SU-15: Forest View-Sth B3439 - Dismantle 11kV O/H Lines		160	09-Jul-26	04-Mar-27	18
SU-16: Forest View-S/W Pykeways Access Road - Divert 11kV O/H Lines		100	09-Jul-26	26-Nov-26	18
SU-17: B4349 Ch.215m - Reposition 11kV Pole		80	09-Jul-26	29-Oct-26	18
Site Mobilisation		85	30-Oct-26	11-Mar-27	285
107474-CO-MOB-1000	Mobilise Team	1	01-Dec-26	01-Dec-26	0
Signage & Public Notification		30	30-Oct-26	10-Dec-26	56
107474-CO-PUB-1010	Grafton Lane PRoW: Notice Period of Intent to Close	30	30-Oct-26	10-Dec-26	56
Site Office & Compound Setup		63	01-Dec-26	11-Mar-27	285
Site Preparatory Works		25	08-Dec-26	25-Jan-27	0
Zone 1: Clehonger Link [Incl B4349]		145	10-Mar-27	05-Oct-27	177
Earthworks		22	10-Mar-27	08-Apr-27	76
Clehonger Link		22	10-Mar-27	08-Apr-27	76
Ducting & Drainage		60	09-Apr-27	05-Jul-27	76
Pavements		33	06-Jul-27	19-Aug-27	172
Finishes		58	15-Jul-27	05-Oct-27	177
Zone 2: A465 Roundabout		193	16-Mar-27	16-Dec-27	124
Earthworks		145	16-Mar-27	07-Oct-27	16
Eastbound Carriageway: Western Approach Ch.0m-Eastern Approach Ch.130m		9	16-Mar-27	26-Mar-27	17
Westbound Carriageway: Eastern Approach Ch.0m-Western Approach Ch.0m		11	13-May-27	27-May-27	19
Eastbound Carriageway: Eastern Approach Ch.130m-Eastern Approach Ch.0m		8	10-Aug-27	19-Aug-27	16
Western & Eastern Splitter Islands Construction		3	05-Oct-27	07-Oct-27	16
Attenuation Basin 03		2	05-May-27	06-May-27	44
Ducting & Drainage		154	18-Mar-27	26-Oct-27	91
Pavements		158	12-Apr-27	22-Nov-27	91
Finishes		162	16-Apr-27	02-Dec-27	91
Surfacing		8	07-Dec-27	16-Dec-27	124
Zone 3: Mainline Ch.2050m-Ch.3000m		277	12-Feb-27	28-Mar-28	63
Earthworks		102	05-May-27	27-Sep-27	24
EM04-02 Ch.2800m-Ch.3000m		22	05-May-27	04-Jun-27	53
EM04-01 Ch.2600m-Ch.2800m		20	20-May-27	17-Jun-27	44
Cut02-02 Ch.2050m-Ch.2600m		102	05-May-27	27-Sep-27	24
Attenuation Basin 02		3	21-May-27	25-May-27	51
Ducting & Drainage		168	15-Mar-27	10-Nov-27	20
Pavements		90	20-Aug-27	10-Jan-28	83
Finishes		140	31-Aug-27	28-Mar-28	63



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Activity ID	Activity Name	No of Days	Start	Finish	Total Float
S07 - Newton Brook Culvert		61	03-Mar-27	01-Jun-27	219
Preliminary Works		2	03-Mar-27	04-Mar-27	101
Substructure		55	08-Mar-27	26-May-27	51
Headwalls & Finishes		59	05-Mar-27	01-Jun-27	219
S08 - Newton Brook Underpass		66	12-Feb-27	19-May-27	274
Preliminary Works		11	12-Feb-27	26-Feb-27	58
Substructure		28	16-Feb-27	25-Mar-27	58
Finishes		16	27-Apr-27	19-May-27	274
Zone 4: Mainline Ch.1700m-Ch.2050m		347	11-Dec-26	19-May-28	28
Earthworks		104	17-Jun-27	10-Nov-27	30
Cut02-01 Ch.1950m-Ch.2050m		57	09-Jul-27	28-Sep-27	23
EM03-03 Ch.1700m-Ch1950m		104	17-Jun-27	10-Nov-27	30
Ducting & Drainage		173	23-Jun-27	07-Mar-28	41
Pavements		31	07-Jan-28	18-Feb-28	53
Finishes		50	19-Jan-28	28-Mar-28	63
Haywood Lane Diversion Road		18	16-Mar-27	12-Apr-27	82
S05 - Railway Underbridge		347	11-Dec-26	19-May-28	28
Substructure		226	11-Dec-26	12-Nov-27	79
General		4	11-Dec-26	16-Dec-26	24
Abutments		120	17-Dec-26	22-Jun-27	162
North		120	17-Dec-26	22-Jun-27	88
South		120	17-Dec-26	22-Jun-27	162
Backfill		171	01-Mar-27	01-Nov-27	79
North		167	03-Mar-27	28-Oct-27	30
South		171	01-Mar-27	01-Nov-27	79
Wingwalls		171	12-Mar-27	12-Nov-27	79
North		168	15-Mar-27	10-Nov-27	81
South		171	12-Mar-27	12-Nov-27	79
Superstructure		299	03-Mar-27	19-May-28	28
Beams		54	04-Mar-27	23-May-27	0
Diaphragm & Fin Walls		21	24-May-27	22-Jun-27	157
North		21	24-May-27	22-Jun-27	83
South		21	24-May-27	22-Jun-27	157
Deck		34	08-May-27	27-Jun-27	0
Parapets		101	28-Jun-27	16-Nov-27	133
Finishes		299	03-Mar-27	19-May-28	28
S06 - Haywood Lane Overbridge		172	20-Jul-27	31-Mar-28	60
Substructure		127	20-Jul-27	28-Jan-28	17
General		7	20-Jul-27	28-Jul-27	17
Abutments		37	29-Jul-27	20-Sep-27	23
North		35	29-Jul-27	16-Sep-27	23
South		37	29-Jul-27	20-Sep-27	23
Backfill		86	07-Sep-27	19-Jan-28	17
North		81	07-Sep-27	12-Jan-28	22
South		84	09-Sep-27	19-Jan-28	17
Wingwalls		87	15-Sep-27	28-Jan-28	17
North		82	15-Sep-27	21-Jan-28	22
South		85	17-Sep-27	28-Jan-28	17
Superstructure		145	26-Aug-27	31-Mar-28	60
Beams		57	26-Aug-27	15-Nov-27	17
Deck		16	07-Oct-27	28-Oct-27	17
Parapets		50	16-Nov-27	08-Feb-28	88
Diaphragm		23	02-Dec-27	18-Jan-28	25
North		18	02-Dec-27	11-Jan-28	30
South		18	09-Dec-27	18-Jan-28	25
Finishes		134	13-Sep-27	31-Mar-28	60
Zone 5: Mainline Ch.860m-Ch.1700m		304	16-Feb-27	11-May-28	34
Earthworks		66	15-Jul-27	15-Oct-27	10
EM03-02 Ch.1450m-Ch.1700m		49	19-Jul-27	24-Sep-27	25



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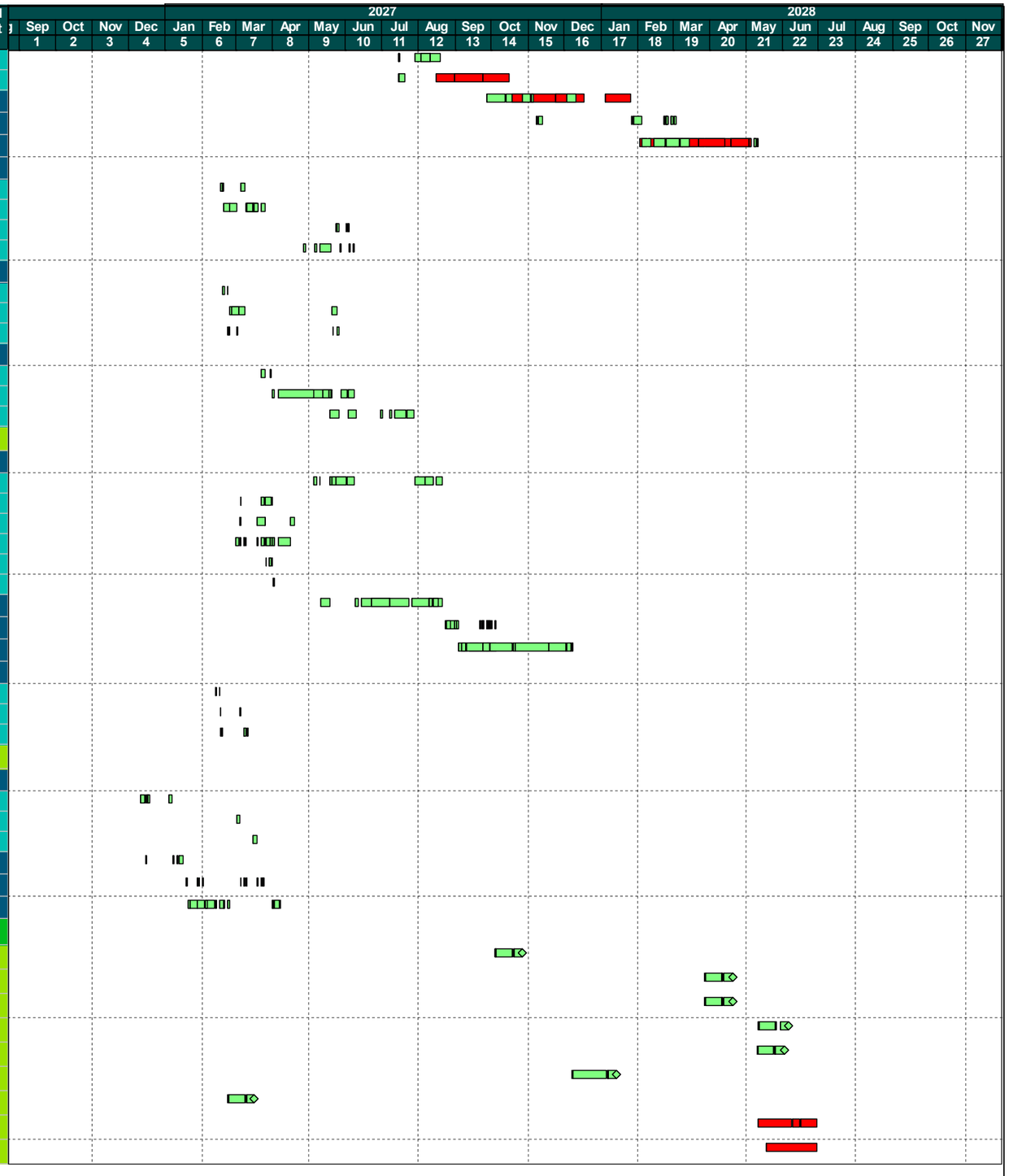
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Activity ID	Activity Name	No of Days	Start	Finish	Total Float
	EM03-01 Ch.1300m-Ch.1450m	26	15-Jul-27	19-Aug-27	40
	EM02-02 Ch.900m-Ch.1300m	66	15-Jul-27	15-Oct-27	0
	Ducting & Drainage	76	27-Sep-27	25-Jan-28	0
	Pavements	74	08-Nov-27	03-Mar-28	42
	Finishes	69	02-Feb-28	11-May-28	34
	S02 - Grafton Lane Underpass	77	16-Feb-27	08-Jun-27	259
	Preliminary Works	15	16-Feb-27	08-Mar-27	56
	Substructure	25	19-Feb-27	25-Mar-27	298
	Pavement	8	24-May-27	03-Jun-27	259
	Finishes	29	27-Apr-27	08-Jun-27	259
	S03 - Withy Brook Culvert	67	18-Feb-27	26-May-27	218
	Preliminary Works	3	18-Feb-27	22-Feb-27	102
	Substructure	61	24-Feb-27	24-May-27	86
	Headwalls & Finishes	65	22-Feb-27	26-May-27	218
	S04 - Central Underpass	89	22-Mar-27	28-Jul-27	141
	Preliminary Works	5	22-Mar-27	30-Mar-27	62
	Substructure	48	31-Mar-27	08-Jun-27	92
	Finishes	50	19-May-27	28-Jul-27	141
	Zone 6: Mainline Ch.100m-Ch.860m	209	12-Feb-27	08-Dec-27	131
	Earthworks	123	01-Mar-27	20-Aug-27	61
	EM02-01 Ch.600m-Ch.900m	77	05-May-27	20-Aug-27	61
	Cut01 Ch.450m-Ch.600m	19	05-Mar-27	31-Mar-27	87
	EM01-02 Ch.300m-Ch.450m	33	04-Mar-27	19-Apr-27	69
	EM01-01 Ch.100m-Ch.300m	34	01-Mar-27	15-Apr-27	69
	Attenuation Basin 01	4	26-Mar-27	31-Mar-27	69
	Basin at Ch.100m	2	01-Apr-27	02-Apr-27	69
	Ducting & Drainage	73	11-May-27	20-Aug-27	160
	Pavements	30	23-Aug-27	04-Oct-27	142
	Finishes	69	03-Sep-27	08-Dec-27	131
	S01 - Grafton Wood Culvert	20	12-Feb-27	11-Mar-27	233
	Preliminary Works	2	12-Feb-27	15-Feb-27	98
	Substructure	14	16-Feb-27	05-Mar-27	87
	Headwalls & Finishes	18	16-Feb-27	11-Mar-27	233
	Zone 7: A49 Roundabout	72	11-Dec-26	07-Apr-27	303
	Earthworks	60	11-Dec-26	18-Mar-27	302
	EM01-01A Ch.0m-Ch.100m [Incl A49 Northbound [Outer] Lane]	9	11-Dec-26	06-Jan-27	299
	A49 Roundabout [Northern & Southern Splitter Islands - Outer Lane Remainder]	3	02-Mar-27	04-Mar-27	302
	A49 Roundabout [Northbound Traffic - Right Turn [Inner] Lane]	4	15-Mar-27	18-Mar-27	302
	Ducting & Drainage	14	15-Dec-26	15-Jan-27	299
	Pavements	48	18-Jan-27	24-Mar-27	302
	Finishes	54	20-Jan-27	07-Apr-27	303
	Handover/Closeout	334	22-Feb-27	29-Jun-28	0
	Zone 1	17	04-Oct-27	26-Oct-27	162
	Zone 2	17	27-Mar-28	20-Apr-28	48
	Zone 3	17	27-Mar-28	20-Apr-28	48
	Zone 4	17	11-May-28	05-Jun-28	18
	Zone 5	17	10-May-28	02-Jun-28	19
	Zone 6	17	07-Dec-27	13-Jan-28	116
	Zone 7	17	22-Feb-27	16-Mar-27	317
	Site Reinstatement & Demobilisation	35	11-May-28	29-Jun-28	0
	Documentation	30	18-May-28	29-Jun-28	0



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Appendix N –QRA Risk Register

Herefordshire Council

							Cost Impact estimate				Time Impact estimate		
ID	Type	Date logged	Risk Name	Description	Mitigation Measures	Owner	Min (£)	Max (£)	Likely (£)	Likelihood	Min (days)	Max (days)	Likely (days)
0.12	open	Jun-25	General & Staff Resources	Possible delay to works/ additional works due to delay in receipt of original design information for phase 1 along with missing information, including missing document issue register.	Missing native format drawings and models likely to increase time required to update recreate drawings and models where revisions are required	HC	£10,000	£50,000	£25,000	50%	0	20	10
0.13	open	Jun-25	General & Staff Resources	Change of Local Government threat to project, works on site to commence Dec 26. Scheme was cancelled previously due to change in local government.	Importance of keeping to programme and contract award enabling commencement of works on site Dec 26. Strategic risk - hence cost not assigned	HC	£0	£0	£0	0%	0	0	0
0.14	open	Jan-26	General & Staff Resources	Judicial review against a planning decision for the supplementary planning application within 6 weeks from the date of the decision (linked to 0.13)	Provide technical support and information to the Client. Site clearance during PCSA stage. AtkinsRealis to continue from Tender Stage work and keep design within constraints	HC	£0	£1,000,000	£250,000	20%	40	258	65
0.15	open	May-26	General & Staff Resources	Key Herefordshire staff leave organisation or are absent due to sickness causing delay to programme, missing key deadlines or project inefficiencies	Provide appropriate organisational resilience and succession planning.	HC	£0	£100,000	£30,000	50%	0	60	20
0.16	open	May-26	General & Staff Resources	Key Atkins/Grahams / AECOM staff leave organisation or are absent due to sickness causing delay to programme, missing key deadlines or project inefficiencies	Provide appropriate organisational resilience and succession planning.	Grahams/Atkins/ AECOM	£0	£50,000	£20,000	20%	0	15	5
1.1	Open	Jan-26	PM	The 2018 Bill of Quantity/Activity Schedule does not match the 2018 Scope and/or quantities calculated in PCSA stage and/or measured quantities differ from those developed in PCSA stage	Experienced team involved in the PCSA stage. Continuity of the team. Raise TQ's to resolve. Opportunity for optimisation of Earthworks Material Strategy to reduce imported fill.	HC	-£400,000	£2,000,000	£1,600,000	95%	0	0	0
1.2	Open	Jan-26	PM	Pricing volatility occurs between tender submission and contract award	Make an allowance for escalation based on feedback from supply chain and review of performance of current indices	HC	-£400,000	£2,000,000	£1,600,000	50%	0	0	0
2.1	open	Mar-25	Highways	Potential that the WCHAR for Phase 1 will need to be updated	We have planning and WCHAR would simply create further pressure relating to foot / cycle access along proposed route. Initial discussions with National Highways point towards exemption. AECOM will provide report for HC to issue to National Highways.	HC	£5,000	£50,000	£15,000	15%	0	0	0
2.2	open	Mar-25	Highways	Potential for undertaking additional Topographical surveys	Topo survey exists. Some further site based topo survey will be required at the extent of the red line boundary, particularly immediately to the south of the railway bridge. Also some issues at extent of tie-ins with existing and also at balancing ponds.	HC	£5,000	£30,000	£20,000	95%	0	10	5
2.3	open	Mar-25	Highways	Potential for update of accommodation works (Bruton Knowles currently progressing). Potential to have to reproduce drawings if we can't get CAD versions.	Any accommodation works issues require resolving ASAP to prevent future programme delays.	HC	-£20,000	£50,000	£20,000	75%	0	20	0
2.4	open	Mar-25	Highways	Potential for delays and design changes resulting from requirement to obtain National Highways Technical approval and legal agreement at tie-in with A49.	There are some departures from standard on the new leg of the A49 roundabout (entry deflection criteria and exit width). These should be able to be resolved with minimal effort. Note this is a pre-commencement condition for this section and discharge of planning condition is required before temporary accesses to site from A49 can be approved	HC	£10,000	£400,000	£250,000	20%	0	80	40
2.5	Open	Jun-25	Highways	Potential to encounter tar bound material and potential for innappropriate pavement design at tie-ins due to lack of pavement investigation and survey information with associated H&S and design life implications	Complete pavement investigations at tie-ins in advance of construction to verify significance of issue and inform design	HC	£20,000	£300,000	£80,000	20%	0	0	0
2.6	Open	Jun-25	Highways	Potential for the pavement foundation design suitability and design life to be affected by Geotechnical concerns.	Verify geotechnical properties to confirm pavement design. Assumed now covered in D&B contract - assumed AECOM's input limited to potential review	D&B	£0	£60,000	£15,000	25%	0	5	1

ID	Type	Date logged	Risk Name	Description	Mitigation Measures	Owner	Min (£)	Max (£)	Likely (£)	Likelihood	Min (days)	Max (days)	Likely (days)
3.1	Open	Jun-25	Structures	Risk of incomplete checks as insufficient information has been provided to confirm that the culvert size of structure S01 is correct (the flood level is not shown).	Update in PCSA design review	D&B	£0	£20,000	£10,000	25%	0	0	0
3.2	Open	Jun-25	Structures	Delays in Network Rail approvals eg due to refusal to re-approve outdated AIP and D&C certificates. (S05)		HC	£0	£1,250,000	£250,000	15%	5	60	20
3.3	Open	Jun-25	Structures	Re-certification design costs and TAA costs for railway bridge) S05)		HC	£50,000	£150,000	£75,000	95%	0	60	0
4.1	open	Jun-25	Drainage	Potential shallow groundwater in the vicinity of drainage attenuation ponds leading to the potential need for a liner incorporating uplift mitigation. This could require significant over excavation to provide the bulk fill overburden necessary for mitigation against uplift, or may require additional drainage measures to draw down groundwater levels. The earthworks and groundwater conditions for each pond will need to be reviewed and this could impact on the planning red line boundary	Consider completing additional testing to verify effectiveness of proposed balancing ponds. AECOM currently preparing proposal (Nov 25).	D&B/HC	£0	£400,000	£100,000	20%	0	20	5
4.2	open	Jun-25	Drainage	Hydrological risk arising due to the limited results from the soakaway testing will need to be reviewed	Consider completing soakaway tests to understand efficiency and scale of any soakaways required.	D&B	£20,000	£50,000	£30,000	50%	0	0	0
5.1	Open	Oct-25	Geotechnics	Phase 1: Due to geotechnical risks & opportunities identified potential for additonal GI and changes to GIR/GDR, earthworks and drainage design	Review design during PCSA stage and undertake additonal GI where required to inform any changes.	HC	-£2,000,000	£2,000,000	£0	0.5	-40	40	0
5.2	open	Oct-25	Geotechnics	Phase 1: Infilled quarry and clay pits were recorded in the vicinty of the scheme in the GIR. There is a risk that they or other un-recorded areas contain unsuitable or contaminated material which will require assessment of contamination or settlement and the design of mitigation and treatment.	Potential to review any additional information availabe on these historic features and the potential for other contaminated or unsuitable material. Designer cost impact only, does not include construction cost impacts.	HC	£0	£120,000	£20,000	10%	0	0	0

ID	Type	Date logged	Risk Name	Description	Mitigation Measures	Owner	Min (£)	Max (£)	Likely (£)	Likelihood	Min (days)	Max (days)	Likely (days)
5.3	Open	Jan-26	Geotechnics	The ground conditions provided within the tender documentation are underestimated (unforeseen) including hydrogeology	Timely communication with the Client Plan and agree additional GI scope early within PCSA stage to inform design freeze	D&B	£0	£750,000	£500,000	15%	10	50	20
5.4	Open	Jan-26	Geotechnics	Unforeseen ground conditions encountered during construction differ from those identified in the PCSA stage, including hydrogeology (links to ID 5.14)	Raise EWN and discuss with Client. Allowance for Designer's Site Rep (DSR) to raise any issues and feedback to designers. Additional pre-surveys done in front of the works. Implement design changes as necessary.	HC	£0	£1,750,000	£500,000	15%	1	110	60
5.5	Open	Jan-26	Geotechnics	Project is impacted Weather > 1 in 10 years	Material specifications; Considering use of lime addition to RMF during placement, to achieve classification and provide wider ranges for moisture content. Confirm float within Tender Programme on earthworks items is adequate during PCSA stage. Sense check Tender Programme bulk earthworks seasonality of March to October seasons against final earthworks design.	HC	£0	£1,500,000	£250,000	25%	0	60	20
5.6	Open	Jan-26	Geotechnics	UXO may be discovered during intrusive ground activities e.g. excavation during the construction stage	UXO surveys to be undertaken in PCSA stage. UXO awareness and site procedures. Safe systems of work for intrusive ground activities. Agree emergency response arrangements.	D&B	£20,000	£100,000	£50,000	5%	0	10	0
6.1	open	Mar-25	Environmental	Potential that additional ecological surveys and assessments are required eg Habitats Regulations Assessment	Undertake PEA for supplementary planning applications as soon as possible	HC	£10,000	£70,000	£30,000	30%	0	5	0
6.2	open	Mar-25	Environmental	There is a risk that the Archaeological watching brief could identify further works to be required.	Undertake mitigation early in programme	HC	£0	£200,000	£100,000	10%	0	50	15
6.3	open	Mar-25	Environmental	Potential for fees payable to Natural England to obtain species licences for GCN and Dormouse along with additional mitigation measures with associated time constraints which could impact on construction programme.	Undertake mitigation early in programme	HC	£20,000	£50,000	£30,000	50%	0	60	0
6.4	open	Jun-25	Environmental	Potential for undertaking stand-alone invasive species surveys completed in isolation from other surveys. If invasive species left unidentified they could spread further. Additional costs of managing impact, potential programme delays. Some species are much easier to identify when plants are flowering.	Early surveys undertaken and on-going. Follow Environment Agency guidelines.	HC	£0	£80,000	£10,000	20%	0	5	3
6.5	open	Oct-25	Environmental	Delays to access for ecological survey works may result in missed survey windows and project delays.	Maintain regular updates with PM team and HC, and check ins with land agent to ensure that they are aware of survey window deadlines	HC	£0	£20,000	£10,000	30%	0	20	10
6.6	Open	Jan-26	Environmental	Archaeological finds are discovered on site (links to 6.5 and 6.16)	Watching Brief throughout construction. Targeted investigations in sensitive areas as part of the PCSA contract.	HC	£0	£2,500,000	£100,000	50%	7	129	7
6.7	Open	Jan-26	Environmental	Invasive non-native species (INNS) - Plants could be found on site e.g. Japanese knotweed (links to 6.17)	Undertake surveys (at the correct time of year). Timing of site clearance.	HC	£10,000	£200,000	£120,000	10%	5	20	10
6.8	Open	Jan-26	Environmental	The existing ancient/veteran tree at S04 causes construction issues	Surveys on tree roots to be undertaken in PCSA stage.	D&B	£0	£50,000	£20,000	25%	0	100	0
8													
8.1	open	Jun-25	Statutory Undertakers	Excessive Statutory Utilities diversion lead in/delivery times on SLR	Once appointed Contractor to engage early on with Utility Companies regarding making arrangements for diversions (for the SLR scheme).	HC	£0	£0	£0	40%	0	30	15
8.2	Open	Jan-26	Statutory Undertakers	Uncharted services are discovered on site	Undertake GPR Survey. Permit to Dig.	D&B	£0	£1,250,000	£50,000	10%	0	30	0

ID	Type	Date logged	Risk Name	Description	Mitigation Measures	Owner	Min (£)	Max (£)	Likely (£)	Likelihood	Min (days)	Max (days)	Likely (days)
9.1	open	Mar-25	Planning	Potential that a S73 application will be required	Discuss any proposed changes with HC planning. We note that the structures drawings submitted at planning contained a high level of detail. The detail differed to that provided at detailed design.	HC	£0	£50,000	£25,000	75%	0	60	0
9.2	open	Jun-25	Planning	Secure consent trafficking of partially constructed railway bridge for earthworks haulage.	Opportunity as haul route already priced for. Supplementary planning application being submitted for haul route	D&B	-£500,000	£0	-£500,000	30%	0	0	0
9.3	open	Nov-25	Planning	Potential for Supplementary Planning application to require an environmental impact assessment - resulting in additional cost/ delay to planning approvals and construction as well as additional enivoronmental surveys	Submit planning pre-app followed by EIA scoping request	HC	£25,000	£50,000	£30,000	10%	0	40	0
9.4	Open	Jan-26	Planning	Deviations from planned possessions (shortened and/or cancelled possessions) affects works e.g. beam lift	Contingency in the programme. Good planning and early engagement.	D&B	£0	£250,000	£100,000	10%	0	50	20
9.5	Open	Jan-26	Planning	There is a risk that there will be a significant lead-in to getting approval of Traffic Management on the National Highways network (A49), and the Traffic Management required could be more onerous than anticipated	Early Engagement with National Highways. Traffic Management Working Groups with key stakeholders. Use internal experience from recent National Highways project deliveries.	D&B	£0	£150,000	£100,000	20%	0	20	0
10.1	open	Mar-25	Accommodation Works	Potential for issues relating to severance of land / PROW / water supplies. Delays in confirming how to proceed can cause programming issues once on site.	Bruton Knowles to provide details of agreements asap.	HC/BK	£0	£50,000	£30,000	25%	0	20	10
10.2	open	Mar-25	Accommodation Works	Additional design work required to provide access to land parcels severed by the works - potential for land ownership to have changed and different access requirements now required to previous or accommodation works scope changes due to land owner negotiations	Bruton Knowles to identify any such situations asap.	HC	-£100,000	£100,000	-£20,000	10%	0	0	£0
11.1	open	Mar-25	Stakeholders	Potential for additional TROs /SROs above those already identified / obtained.	Need for additional TROs /SROs or TTROs particularly around Haywood lane curently being reviewed by Sharpe Pritchard	HC	£20,000	£40,000	£30,000	50%	0	50	0
11.2	open	Mar-25	General & Staff Resources	Potential that the statutory orders will need to be amended or updated, resulting in delays to CPO	Some amendments required to orders, currently being revised. May require further cabinet approvals. Sharpe Pritichard progressing revised orders.	HC	£10,000	£50,000	£25,000	0	0	60	0
11.3	open	Nov-25	Stakeholders	Potential for CPO to be required for land acquisition resulting in design change, delays to construction and possible public enquiry following	Bruton Knowles currently completing negotiations with land owners.	HC	£0	£250,000	£100,000	40%	0	390	40

Appendix O – Planning Application and Design Review Report

Hereford Southern Link Road

Planning Application and Design Review

Herefordshire Council

Project Number 60715938

February 2024

Herefordshire Council, Plough Lane,
Hereford HR4 0LE

Delivering a better world

Quality information

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1. Introduction

AECOM has been requested by Herefordshire Council (HC) to carry out a review of planning application reference P151314/F ('the Southern Link Road (SLR)', hereby referred to as 'the Scheme') that was submitted to Herefordshire Council, in their capacity as the Local Planning Authority (LPA) in 2015 and to set out the next steps required to enable the re-commencement of construction of the Scheme. This report sets out the evaluation and conclusions of a review of planning issues and environmental issues with respect to the SLR. The review also explores options for incorporating active travel and to provide updated cost estimates. The findings will be summarised at the end of this report and will advise the options for the next stage required before commencement of construction.

2. Review of the Planning Application

2.1 Introduction

Planning application ref. P151314/F was submitted on behalf of Herefordshire Council on 8th May 2015. Planning permission reference P151314/F was granted subject to conditions on 18th July 2016 for the development of a *"new single carriageway (Southern Link Road) and associated works"* on the land between the *"existing roundabout junction of A49(T) and B4399 to a new roundabout with the A465 then joining the B4349"* (hereafter referred to as 'the Site'). The SLR is located to the south-west of Hereford.

This section provides a review of planning application ref. P151314/F to establish the validity of the planning permission and whether it can still be implemented. It also identifies any changes to local and national planning policy that have taken place since the approval of planning application ref. P151314/F. Finally, a review of the Scheme has been undertaken to establish whether active travel infrastructure can be incorporated into the SLR design.

This Section is structured as follows:

- Section 2.2 provides a contextual overview of planning application ref. P151314/F;
- Section 2.3 considers the validity of planning application ref. P151314/F;
- Section 2.4 reviews the planning policy context identifying any changes in local and national planning policy since the determination of planning application ref. P151314/F;
- Section 2.5 advises whether active travel infrastructure and amendments to the Scheme could be made at this stage; and
- Section 2.6 summarises our advice.

It should be noted that this advice is based on the information provided October 2023. It is therefore recommended that the advice set out in this document be confirmed should any changes be made to the Scheme or planning strategy.

2.2 Overview of Application P151314/F

A planning application was submitted on behalf of Herefordshire Council on 8th May 2015 and was allocated application reference number P151314/F. The description of development sought a "*new single carriageway (Southern Link Road) and associated works"*. As Herefordshire Council was the applicant as well as the determining authority, it was undertaken in accordance with Regulation 3 of the Town and Country Planning General Regulations (1992).

The Scheme proposed under planning application ref. P151314/F would provide a new single carriageway (two lanes) road between the A49 Ross Road at the roundabout with Rotherwas Access Road and the A465 / B4349 Clehonger Road junction. The road is approximately 3.6 km in length. For the A49, the road extends westwards from a fourth arm to the roundabout, through Grafton Wood and then continuing over Grafton Lane at Withy

Brook before crossing above the existing Hereford to Newquay railway line. After this it passes underneath Haywood Lane, straightening up and heading in a north westerly direction to the A465, where a new four arm roundabout would have two entry lanes and two exit lanes. The road then extends from the proposed roundabout creating a new link to the B4349 (Clehonger Road). It is understood that no active travel infrastructure was included as part of the SLR scheme.

The planning application was determined at planning committee on 6th June 2016. Members voted to grant planning permission and the decision notice was dated 18th July 2016. Planning permission was granted subject to 21 conditions. Table 1 contains a schedule of the planning conditions along with information on their type and any triggers for discharging them. Reference should be made to the decision notice for the full wording of the planning conditions. The different types of condition include:

- Compliance – These conditions seek to ensure the proposed development is constructed in accordance with certain criteria or documentation;
- Pre-commencement – These conditions are linked to works commencing and usually require the submission of information to the LPA for approval to discharge. There are occasions where a pre-commencement condition is linked to a particular phase or element of the proposed development; and
- Prior to opening/use – These conditions are linked to the proposed development being brought into operation and usually require the submission of information to the LPA for approval to discharge prior to that stage.

Table 1: Schedule of Planning Conditions attached to planning permission ref. P151314/F

#	Condition	Type	Notes
1	Development shall be begun within three years of the granting of permission.	Compliance	Planning permission expires 18th July 2019.
2	Development shall be carried out in accordance with the approved plans.	Compliance	
3	Development shall be undertaken in accordance with the mitigation outlined in the Environmental Statement.	Compliance	
4	Construction to occur: • Mon-Fri 7:30-18:00; • Saturday 8:00-13:00; and • No time on Sundays, Bank or Public Holidays.	Compliance	Approval from LPA required where works are proposed outside of these hours.
5	The applicant must appoint an Environmental Co-ordinator(s) independent of the design and construction personnel.	Pre-commencement	The co-ordinator(s) is to be approved by the LPA.
6	Construction Environmental Management Plan (CEMP).	Pre-commencement	Must be submitted to LPA no later than three months prior to commencement of construction.
7	Construction Environmental Management Plan – Sub Plans.	Pre-commencement	Linked to the CEMP above.
8	Soil management – Preparation of a Materials Management Plan.	Pre-commencement	
9	Archaeology – Implementation of a programme of archaeological works.	Pre-commencement	
10	Biodiversity – following of method statements for protected species.	Pre-commencement	

#	Condition	Type	Notes
11	Biodiversity (species and habitat protection and enhancement scheme)	Pre-commencement	
12	Landscape and tree protection (detailed landscape scheme)	Pre-commencement	
13	Landscape and tree protection (Landscape Maintenance and Management Plan)	Prior to opening/use	
14	Landscape and tree protection (construction materials and finishes)	Pre-commencement	Details to be provided prior to commencing construction of bridge structure or parapet.
15	Water Quality, Flood Risk and Drainage (surface water drainage scheme)	Pre-commencement	
16	Water Quality, Flood Risk and Drainage (mitigation measures and channel enhancements)	Pre-commencement	
17	Highways (approval of full design and construction details for junction between SLR and A49(T)	Pre-commencement	Details to be provided prior to commencing construction of junction between SLR and A49(T) – Subject to non-material amendment (P191223/AM) that linked the trigger to part of the works.
18	Highways (legal agreement for work on the A49 trunk road)	Pre-commencement	Details to be provided prior to commencing construction of junction between SLR and A49(T) – Subject to non-material amendment (P191223/AM) that linked the trigger to part of the works.
19	Highways (surface materials)	Pre-commencement	
20	Highways (lighting details)	Prior to opening/use	
21	Highways (weight restriction on Belmont Road)	Prior to opening/use	

2.3 Validity of Application P151314/F

Condition 1 of application reference P151314/F sets out that the development should be begun before the expiration of three years from the date of the planning permission. This means that construction works would have needed to commence on site prior to 18th July 2019.

For a planning permission to be implemented lawfully, all necessary pre-commencement planning conditions must be discharged prior to construction work commencing on site. There are 14 planning conditions in Table 1 that are pre-commencement, acknowledging that condition 14 is linked specifically to the construction of bridge structure or parapets and conditions 17 and 18 are linked to the construction of the junction between the SLR and the A49(T). The remaining 11 pre-commencement conditions would need to be discharged before application P151314/F could be implemented lawfully.

A search on the LPA's online 'Planning Search' tool identified several applications that have been submitted to discharge planning conditions associated with planning application ref. P151314/F. Table 2 provides a schedule of these applications and their status. A review of these discharge of condition applications confirms that all necessary pre-commencement planning conditions were discharged meaning planning application ref. P151314/F could have been lawfully implemented prior to the 18th July 2019. The last discharge of condition

application (ref. P191579/XA2 for Condition 5) was approved 20th June 2019 which provided 20 working days to lawfully implement the planning permission.

Table 2: Schedule of applications to discharge planning conditions associated with application P151314/F

Reference	Planning Condition(s)	Status	Date
P191777/XA2	12 Landscape and tree protection (detailed landscape scheme)	Approved – Condition 12 has been discharged	19th June 2019
P191579/XA2	5 Environmental Co-ordinator	Approved – Condition 5 has been discharged	20th June 2019
P191458/XA2	8 Soil management	Approved – Partial discharge of Condition 8 for Phase 1 of works	13th June 2019
P191452/XA2	6 Construction Environmental Management Plan 7 Construction Environmental Management Plan – Sub Plans	Approved – Partial discharge of Conditions 6 and 7 for Phase 1 of works	12th June 2019
P184535/XA2	9 Archaeology	Approved – Condition 9 has been discharged	15th January 2019
P184246/XA2	20 Highways (lighting details)	Approved – Condition 20 has been discharged	8th February 2019
P184245/XA2	19 Highways (surface materials)	Approved – Condition 19 has been discharged	8th February 2019
P184244/XA2	16 Water Quality, Flood Risk and Drainage (channel enhancements)	Approved – Condition 16 has been discharged	22nd May 2019
P184243/XA2	15 Water Quality, Flood Risk and Drainage (surface water drainage scheme)	Approved – Condition 15 has been discharged	09th May 2019
P184242/XA2	14 Landscape and tree protection (construction materials and finishes)	Approved – Partial discharge of Condition 14 enabling works to commence	15th January 2019
P184241/XA2	10 Biodiversity (method statements for protected species) 11 Biodiversity (species and habitat protection and enhancement scheme)	Approved – Conditions 10 and 11 have been discharged	1st May 2019
P184240/XA2	4 Hours of operation	Approved – Condition 4 has been discharged	8th January 2019

It has been evidenced through dated photographs that the Client undertook a nominal commencement of works between the 1st July 2019 and the 18th July 2019 (the date the planning permission reference P151314/F was set to expire). The development carried out during this period relates to Phase 1 as shown on drawing number DMCXX999-C-2601 (General Arrangement). The Client commenced partial construction of the road between Chainage 1150 m to Chainage 1300 m of the carriageway, which involved elements of earthworks, road pavements (unbound) and fencing approved by application.

This commencement of works has been evidenced and confirmed through a letter from the LPA dated 25th July 2019 which confirms that all the requisite pre-commence conditions attached to application ref. P151314/F have

been discharged and the development of Phase 1 of the SLR has commenced in accordance with the approved plans.

The case officer for the application, Miss Kelly Gibbons (Development Manager), visited the construction site on Thursday 4th July 2019 and Monday 9th July 2019, and confirmed that the works undertaken are considered sufficient to confirm the commencement of development in accordance with the requirements of Condition 1 (commencement of development within 3 years).

It has been clearly evidenced that commencement of development began lawfully prior to the date of consent expiry (18th July 2019), therefore Condition 1 has been satisfied and works to proceed with the scheme in accordance with the approved plans can be continued.

2.4 Planning Policy Context Review

Table 3 provides an overview of the planning policy context at the time application ref. P151314/F was determined and whether these documents have been superseded since its determination. This confirms that there has been no change in Herefordshire Council's local planning policy. There has been a change in policy at a national level with several updates to the National Planning Policy Framework (NPPF). There has also been a change in neighbourhood planning which has seen two neighbourhood plans being made since July 2016.

Table 3: Planning Policy Context

Planning policy context for application P151314/F	Current planning policy context
NPPF (2012)	NPPF (2023)
The Herefordshire Local Plan Core Strategy (adopted October 2015)	No change
Herefordshire Local Transport Plan 2016 – 2031 (adopted May 2016)	No change
The Callow and Haywood Draft Neighbourhood Development Plan 2011-31 – which had progressed to Regulation 16 stage and was with the examiner at the time application P151314/F was determined	Callow and Haywood Group Neighbourhood Development Plan (made 1st December 2016)
Clehonger Parish Council had designated their Neighbourhood Plan – this had not progressed to the Regulation 14 stage at the time application P151314/F was determined	Clehonger Neighbourhood Development Plan (made 7th June 2021)

2.4.1 National Planning Policy Framework (2023)

The NPPF was first published in 2012 and has been updated in July 2018, February 2019, July 2021, and September 2023 since the determination of planning application ref. P151314/F. The updates made to the NPPF are not considered to remove support for the SLR, they may however impact on the detail required to support a future application, if required. The following NPPF chapters would be considered relevant in relation to the detail for any future planning application for the SLR:

- Chapter 2 Achieving Sustainable Development;
- Chapter 6 Building a strong, competitive economy;
- Chapter 8 Promoting healthy and safe communities;
- Chapter 9 Promoting sustainable transport;
- Chapter 12 Achieving well-designed places;
- Chapter 14 Meeting the challenge of climate change, flooding and coastal change;
- Chapter 15 Conserving and enhancing the natural environment; and

- Chapter 16 Conserving and enhancing the historic environment.

2.4.2 Callow and Haywood Group Neighbourhood Development Plan (2016)

The Callow and Haywood Group Neighbourhood Development Plan (CHGNDP) was adopted on 1st December 2016 and now forms part of the Development Plan for Herefordshire meaning any future planning application would be assessed against its policies alongside existing national and County planning policies.

The CHGNDP acknowledges that the SLR already benefits from planning permission. This is referenced at paragraphs 1.19 and 1.20 of the CHGNDP which state:

> *"1.19 The proposed Southern Link Road to the south of the City of Hereford is a major concern as the identified corridor is likely to impact on the Group Parish to some degree, whichever route is finally determined by Herefordshire Council.*
>
> *1.20 The proposed new Southern Link Road will link from the A49 Ross Road/Rotherwas Access Road roundabout to the A465 and the B4349 Clehonger Road. In June 2016 the planning application for the South Wye Transport Package (SWTP) – Southern Link Road was determined and planning consent was granted on 18 July 2016."*

Policy CH2 aims to ameliorate potential impacts on the group parish associated with the proposed SLR and sets out several criteria to reduce adverse impacts on local landscape character, wildlife, and local quality of life. Any future planning application for the SLR would need to address these criteria. In addition, the following CHGNDP policies would be considered relevant in relation to the detail for any future planning application for the SLR:

- Policy CH1 – Protecting and Enhancing the Rural Landscape;
- Policy CH2 – Building and Transport Design Principles;
- Policy CH3 – Local Heritage List; and
- Policy CH4 – Protecting the Sensitive Landscape Assets in the Urban Fringe.

2.4.3 Clehonger Neighbourhood Development Plan (2021)

The Clehonger Neighbourhood Development Plan (CNDP) was adopted on 7th June 2021 and now forms part of the Development Plan for Herefordshire, meaning any future planning application would be assessed against its policies alongside existing national and County planning policies.

The SLR (referred to as the Hereford bypass) is referenced within the CNDP and covered by Policy C11. This policy secures the principle for a wider Hereford bypass and is intended to complement other policies of the CNDP by addressing potential impacts in a single policy. The CNDP acknowledges that the SLR already benefits from planning permission as demonstrated in the supporting text at Paragraph 6.15, which states:

> *"Herefordshire Council is developing proposals for a Hereford bypass which will pass through the Neighbourhood Area. Provision for the scheme is made in the Local Plan Core Strategy. An initial phase will see the existing junction of the A465 and the B4349 being moved to the west and replaced by a roundabout. The roundabout will serve a new road, the southern link road, running from the A49 at Grafton to the A465. These proposals have planning permission and compulsory purchase and side roads orders have been confirmed."*

The following CNDP policies would be considered relevant in relation to the detail for any future planning application for the Hereford SLR:

- Policy C1: Sustainable Development;
- Policy C4: Natural Environment;
- Policy C5: Historic Environment;
- Policy C6: Design; and
- Policy C11: Hereford bypass.

2.5 Amendments to Planning Permission Reference P151314/F

It has been established that planning permission ref. P151314/F has been lawfully implemented and works to construct the SLR in accordance with the approved plans can proceed. However, consideration is also being given to whether changes can be accommodated.

It is understood that potential amendments to the Scheme fall into two categories. The first would be changes to the design to align with current highway and other design guidance. This could conceivably involve changes to junctions, highway alignment and associated structures. The second involves the addition of a segregated cycle lane alongside the proposed road.

There is a desire to keep potential amendments within the red line boundary of planning permission ref. P151314/F. However, it is understood that an LTN 1/20 compliant cycle lane is unlikely to fit inside the existing red line boundary. It should be noted that any changes located outside of a red line boundary to a planning application cannot be covered under the available mechanisms for making amendments to an existing planning permission. An alternative consenting strategy (for example a separate planning application) will be required for any changes located outside of the red line boundary.

It is recommended that once the nature and scale of any potential amendments have been established a further review is undertaken to advise on the most suitable mechanism for amending the planning permission. The available mechanisms for amending a planning permission can be summarised as follows:

- **De-minimus changes** – These changes are of an extremely minor nature which means they can be accommodated within the approved design with agreement from the LPA. Based on the information available, this is unlikely to be applicable in this case.
- **Discharge of Condition Application** – Where changes relate to detail design it is sometimes possible to address them through a subsequent discharge of condition application that once approved would supersede any previously agreed detail. This would be applicable to minor changes in detail design that do not impact on information presented on the approved drawings.
- **Non-material Amendment (Section 96a) Application** – This type of application can be used for a minor change to a planning permission that does not breach any conditions placed on that permission. Whether a change is considered 'non-material' (rather than 'material') will depend on the specific details in that case and there is no definition for what can be considered non-material. If a change is not considered non-material by the LPA an amendment application or new planning application will be required.
- **Amendment (Section 73) Application** – This type of application allows the applicant to vary or remove planning conditions attached to the original planning permission. It can be used to make minor material changes to an application by varying the planning condition that secures the approved drawings. New drawings are provided and if approved supersede those in the original planning condition.
- **New Planning Application** – A new planning application will be required if the changes cannot be addressed using one of the mechanisms above.

It is recommended that allowance is made for discussing the preferred mechanism with the LPA to ensure all parties agree on the route forward. The preferred mechanism will require 'buy in' from the LPA as they will need to be satisfied any potential amendments can be addressed using that type of application. This will avoid an unnecessary delay to validation or a refusal if they disagree on the mechanism for amending the planning permission.

A further consideration is that application ref. P151314/F was an Environmental Impact Assessment (EIA) development and accompanied by an Environmental Statement (ES). Consideration will also need to be given as to whether the potential amendments trigger any changes to Likely Significant Effects as presented with the EIA. Changes to reported effects might impact on the mechanism used to amend a planning permission as well as information required to support an application. For example, a Section 73 application might need to be accompanied by an Environmental Statement Addendum to consider the potential for changes to Likely Significant Effects in the EIA.

2.6 Summary

Planning application ref. P151314/F was submitted on behalf of Herefordshire Council on 8th May 2015. The application sought a *"new single carriageway (Southern Link Road) and associated works"*. The application was determined at planning committee and planning permission was granted, subject to conditions, on 18th July 2016.

Planning application ref. P151314/F was subject to a planning condition requiring construction works to have commenced on site prior to the 18th July 2019. A review of discharge of condition applications confirms that all necessary pre-commencement planning conditions were discharged by the 20th June 2019.

The Client undertook a nominal commencement of works prior to the 18th July 2019 and that planning application ref. P151314/F has been lawfully implemented. This has been confirmed through a letter from the LPA dated 25th July 2019.

A review of the planning policy context confirms that there has been no change in Herefordshire Council's local planning policy. There have been several updates made to the NPPF, but these are not considered to impact on the principle for the SLR. There has also been a change in neighbourhood planning which has seen two neighbourhood plans being made since July 2016. A review undertaken of these documents confirms they acknowledge development of the SLR.

Planning application ref. P151314/F has been lawfully implemented and works to construct the SLR can proceed in accordance with the approved plans, however it is understood the Client seeks to make potential amendments to the Scheme. Any changes outside of the red line boundary would require a new planning application. There are several mechanisms available for amending a planning permission. It is recommended that once the nature and scale of any potential amendments have been established a further review is undertaken to advise on the most suitable mechanism for amending the planning permission. This matter should also be discussed with the LPA to ensure their 'buy in' on the preferred approach. Consideration should also be given as to whether the potential amendments trigger any changes to Likely Significant Effects as presented with the EIA. This might impact on the mechanism used to amend a planning permission as well as information required to support an application.

3. Review of Environmental Assessment

3.1 Introduction

Planning application ref. P151314/F was an EIA development and accompanied by an ES. A review of this ES has been undertaken with respect to the surveys carried out, data sources used, and guidance followed. The current validity of the conclusions is discussed with respect to changes that have since come about with the passage of time. Where relevant, other documents related to environmental assessments have also been reviewed.

Legislation, guidance and policy have been reviewed to identify changes that may impact environmental surveys and assessments should these need to be updated.

Finally, the next steps required to progress construction of the Scheme are described for three scenarios in Section 4:

- if the Scheme is progressed as currently consented;
- if there are material amendments proposed to the Scheme which fall within the existing development boundary and are considered consistent with the original permission, allowing for the submission of a planning application under Section 73 of the Town and Country Planning Act 1990 (As Amended) to vary a condition(s) attached to the original planning permission; and
- the proposed changes cannot be addressed through an amendment to the existing permission and a new standalone planning application is to be submitted.

3.2 Review of Existing Environmental Surveys and Assessments

A review of the ES that was submitted with planning application ref. P151314/F, and other associated documents, has been undertaken and is described in Table 4. This table makes reference to the validity of the planning application in the context of a future potential planning application.

Table 4: Review of Environmental Assessments submitted with the Planning Application

Document/Item	Date completed	Summary of Conclusion	Comment on Validity
Issues Affecting the Whole ES	**Issues Affecting the Whole ES**	**Issues Affecting the Whole ES**	**Issues Affecting the Whole ES**
Consultation		Consultations with stakeholders and public consultation was undertaken as part of the planning application which this ES supports, and their responses were taken into account in the ES where applicable.	The consultation responses taken into account may not be considered representative of current stakeholders and the general public.
Opening Year		Assessments have been completed on the basis of construction occurring from the beginning of 2016 and the proposed Scheme being complete in late 2017, early 2018. Traffic figures have been calculated for the future years 2017 and 2032.	The temporal scope upon which the assessment is based is out of date as the proposed opening year has passed and the plan has been built out to incorporate new data as time has passed.
Air Quality	**Air Quality**	**Air Quality**	**Air Quality**
Air Quality Assessment (ES Chapter 5)	April 2015	A baseline monitoring survey was conducted Feb-May 2014. Exceedance of the annual mean objective value for NO_2 recorded on Victoria Street. Elsewhere in the study area NO_2 concentrations were below the objective value.	Given the time elapsed this data is considered out of date and not reflective of current conditions. Pollutant concentrations are often seen to reduce with time.

Document/Item	Date completed	Summary of Conclusion	Comment on Validity
		Air quality assessment found: No significant effects during construction. Negligible air quality effects at human receptors during operation. Slight adverse impacts during operation at statutory ecological designated sites. Habitat planting proposed to compensate loss. Negligible residual effect.	Baseline year used for model verification was 2012. This is now considered very old, and the baseline situation is likely to have changed. The assessed opening year of 2017 has passed, and a future opening year will likely result in smaller modelled concentration changes due to emissions improvements with time. All data, guidance, and tools used have been updated since the assessment was completed. Of particular note, changes to the assessment of nitrogen deposition at statutory ecological designated sites may result in the finding of larger impacts were this assessment to be conducted using the current methodology, due to the additional consideration of contributory ammonia emissions .
Cultural Heritage	**Cultural Heritage**	**Cultural Heritage**	**Cultural Heritage**
Cultural Heritage Assessment (ES Chapter 6)	April 2015	Cultural heritage assessment found: Two scheduled monuments and 21 listed buildings within the Outer Study Area (up to 1 km from the Scheme). After mitigation, a significant effect (moderate/large adverse) on the setting of Haywood Lodge Listed Buildings during construction and operation. After mitigation, a non-significant effect (slight adverse) at Dinedor Camp Scheduled Monument during construction and operation. After mitigation, a non-significant effect (slight/moderate adverse) at a listed milestone during construction.	Data collection undertaken using historical and modern maps, secondary sources and the Herefordshire Council Historic Environment Record. Given the time elapsed this data is likely to be out of date and further data/designations may now be available.
Cultural Heritage Assessment (ES Chapter 6)	April 2015	The inner study area (up to 300 m from the Scheme) was visited in October 2014 in order to assess its character, identify visible historic features and assess factors which may affect asset survival.	Given the time elapsed since this visit, the setting of the study area and any heritage assets may have changed.
Archaeological Field Evaluation Written Scheme of Investigation (ES Appendix 6.2)	January 2015	An Archaeological Field Evaluation Written Scheme of Investigation (WSI) has been devised in consultation with the Archaeological Advisor at Herefordshire Council.	Given the time elapsed and changes to guidance and methodology and the updated required for the desk study, the WSI may be considered out of date.
Landscape	**Landscape**	**Landscape**	**Landscape**
Landscape and Visual Impact Assessment (ES Chapter 7)	April 2015	The Landscape and Visual Impact Assessment found neutral to slight adverse landscape effects and neutral to large visual effects due to the proximity of the Scheme to residential properties. The temporal scope of the assessment is based on the following timescales; • Baseline year (2014); • Construction Phase (start mid-201 6 with completion late 2017 / early 2018); and • Operational Phase - Year of Opening (late 2017 / early 2018) and 15yrs after opening.	The temporal scope upon which the assessment is based is out of date. The assessment has not been completed using the latest guidance.
Landscape and Visual Impact	April 2015	Baseline information has been gathered from desk-based studies. A Zone of	Given the time that has elapsed since the undertaking of this assessment, it is

Document/Item	Date completed	Summary of Conclusion	Comment on Validity
Assessment (ES Chapter 7)		Theoretical Visibility (ZTV) was generated for Scheme and the baseline was also informed by field work.	considered that the baseline conditions will have changed considerably from those used as the baseline for the assessment (2014).
Landscape and Visual Impact Assessment (ES Chapter 7)	April 2015	The potential effects of proposed street lighting and road signage have been taken into account in the assessment of landscape and visual effects.	The landscape assessment will not have taken account of improvements in lighting technology, particularly over the past five years. No standalone lighting assessment has been undertaken.
Landscape Viewpoints (ES Figure 7.2, 7.3)	December 2015	30 viewpoints selected and documented to assess the visual impacts of the Scheme.	Given the time that has elapsed, the viewpoint photography is unlikely to be reflective of current baseline conditions (new housing, vegetation growth etc). Additional receptors may also have been created as a result of additional development since 2014.
Arboriculture Report (ES Appendix 7.1)	April 2015	A field survey was undertaken in November 2014. Notable trees and woodland character were identified, impacts (including tree loss) were identified, and a method statement was outlined for the protection of trees during construction work.	It is explicitly stated that this report, and any recommendations made within it. are valid for a period of 12 months from the date of the site survey (November 2014). The condition and quality of trees since the survey is likely to have changed.
Ecology	**Ecology**	**Ecology**	**Ecology**
Habitat Regulations Screening Assessment	June 2016	No likely significant effects are expected during construction or operation at the Natura 2000 Sites considered (the River Wye Special Area of Conservation)	An updated Habitat Regulations Assessment (HRA) will be required having regard to all relevant case law relating to the Conservation of Habitats and Species Regulations (2017), the Habitats Directive and Birds Directive. This includes the key ruling by the Court of Justice of the European Union (CJEU) in the case of People Over Wind, Peter Sweetman v Coillte Teoranta (C-323/17) (CJEU, 2018). This case held that; "*it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site*" (paragraph 40). This establishes that 'mitigation measures' cannot be taken into account at the screening stage, but they can be taken into account in an Appropriate Assessment. The existing HRA Screening Report states that "*Likely significant effects were ruled out on the basis of hydrological protection measures during both construction and operation. Potential fragmentation effects have been addressed by including measures to maintain habitat permeability within the design. Incidental mortality and disturbance of species will be minimised by the inclusion of underpasses for otters and bats within the operational design.*"
Ecology Assessments (ES Chapter 8)	April 2015	Desk study undertaken using information collated from Herefordshire Biological Records Centre and the Multi-Agency Geographic Information for the Countryside (MAGIC) online database.	Given the time that has elapsed, the data from these records is now considered out of date. Relevant guidance has been updated (e.g. guidelines for ecological assessment (The Chartered Institute of Ecologists and Environmental Managers, CIEEM, 2018), and Preliminary Ecological Assessment (CIEEM, 2017)). In

Document/Item	Date completed	Summary of Conclusion	Comment on Validity
			addition, Sites of Importance for Nature Conservation (SINCs) have been replaced by Local Wildlife Sites (LWS).
Phase 1 Habitat Survey Report (ES Appendix 8.1)	November 2014	An Extended Phase 1 Habitat survey was undertaken by suitably experienced ecologists on 7th and 8th April 2014. This survey informed the suite of detailed surveys.	Given the time elapsed it is considered this survey and report is out of date and not fully reflective of the current ecological baseline conditions. Relevant guidance has been updated (CIEEM, 2017), and other species and habitats may now be rare or notable (e.g. Joint Nature Conservation Committee, JNCC, 2023).
N/A			It is possible that the Site may now have potential to support other protected or notable species or habitats (e.g. pine marten), or those that are newly identified as rare or notable (e.g. JNCC, 2023, British Trust for Ornithology, Birds of Conservation Concern 5, 2021).
Woodland Botanical Survey Report (ES Appendix 8.2) and Botanical Update Report in 2017	December 2014 / 2017	Woodland botanical surveys were undertaken by a competent botanist experienced in undertaking woodland surveys on the 18th and 19th September 2014. Five woodlands were assessed within close proximity to the Scheme. Habitats surveyed in 2017 were not found to have changed significantly since the surveys in 2014.	Noted that planning permission was granted in 2016. However, a number of objections were raised by the public in relation to carrying out woodland National Vegetation Classification (NVC) surveys outside the optimum season in 2014, undervaluing Grafton Wood and the lack of bryophyte and targeted species. Therefore, surveys were updated in 2017, which found no significant change from the 2014 results. Given the time elapsed since the 2017 surveys it is considered that these surveys are now out of date. The report will not be in accordance with current ancient woodland guidance from Natural England and the Forestry Commission (2022).
Hedgerow Report (ES Appendix 8.3)	December 2014	A hedgerow assessment was undertaken by competent botanists between the 17th and 19th of September 2014. Several species-rich and Important hedgerows were identified. A total of 35 hedgerows were assessed as part of the hedgerow survey.	It is noted in the ES that 12 species-rich hedgerows (some of which are classified as important under the Hedgerow Regulations 1997) will be bisected by the Scheme, and there are seven other species-rich hedgerows which may potentially be indirectly impacted. Given the time lapsed since the 2014 surveys, it is considered that these surveys are now out of date.
Terrestrial Invertebrate Report (ES Appendix 8.4)	December 2014	A general scoping invertebrate survey was undertaken on 28th May 2014, with a follow up survey on 11th September 2014. Five invertebrate species with conservation status were found during the survey.	It is noted in the ES that there is habitat loss (resulting in direct mortality of terrestrial invertebrates) within Grafton Wood and hedgerows. Additionally, temporary impacts through construction are considered on other habitat including a group of apple trees, the hedgerow oak pollard and Hayteasow Wood. Given the time lapsed since the 2014 survey, it is considered that it is now out of date. The report may not include species that are now listed as rare or notable, for example as species of principle importance by Defra and Natural England (2022).
Aquatic Invertebrate Report (ES Appendix 8.5)	November 2014	Sampling was carried out over two seasons in 2014: spring (28th May 2014) and autumn (11th September 2014). No uncommon or	Given the time lapsed since the 2014 survey, it is considered that it is now out of date.

Document/Item	Date completed	Summary of Conclusion	Comment on Validity
		protected species were recorded during the survey.	
Great Crested Newt Report (ES Appendix 8.6) and Great Crested Newt Report 2018	December 2014 / April 2018	A great crested newt (*Triturus cristatus*) survey was undertaken between 28th April and 3rd June 2014. This species was recorded as present in all eight ponds which were assessed and evidence of breeding was found in five ponds. An updated report was published in December 2018 following a survey conducted between 10th April and 20th June 2017 to inform the discharge of planning conditions 10-11. This survey confirmed the presence of great crested nest in eight out of ten ponds which contained water.	Noted in the ES that no waterbodies suitable for great crested newts will be impacted from survey data in 2014, however impact on great crested newt terrestrial habitat. The surveys are considered out of date (CIEEM, 2019).
Reptile Report (ES Appendix 8.7)	December 2014	The survey area was visited on seven occasions between 5th June 2014 and 30th September 2014. Small numbers of common and widespread species were recorded.	Given the time lapsed since the survey, it is considered that it is now out of date.
Riparian Survey Report (ES Appendix 8.8)	January 2015	A water vole (*Arvicola amphibius*), white clawed crayfish (*Austropotamobius pallipes*), and otter (*Lutra lutra*) presence / likely absence survey was undertaken on 4th September 2014. Water vole and white clawed crayfish were not recorded during the survey. Evidence of otter was found on Withy Brook.	Given the time lapsed since the survey, it is considered that it is now out of date. The report will not have been prepared with reference to Natural England's updated standing advice for protected species (2022).
Breeding Bird Report (ES Appendix 8.9)	December 2014	Six visits were undertaken between 29th April 2014 and 9th July 2014. 37 bird species were recording as breeding of which 14 were of conservation importance.	Given the time lapsed since the survey, it is considered that it is now out of date. The report will not have consideration of the updated Birds of Conservation Concern 5, British Trust for Ornithology, 2021.
Barn Owl Report (ES Appendix 8.10)	December 2014	A detailed barn owl survey was undertaken on 2nd and 3rd July 2014, 24th and 25th September 2014 and 10th November 2014. One roost was identified but it was not a breeding site.	Given the time lapsed since the survey, it is considered that it is now out of date. The report will not have consideration of the updated Birds of Conservation Concern 5, British Trust for Ornithology, 2021.
Bat Activity Report (ES Appendix 8.11)	December 2014	A suite of bat surveys were undertaken across 2014. A relatively high number of bat passes was found with at least 10 species recorded. The survey area was considered to be 'bat rich'.	Bat survey guidance has been updated since 2014, and the existing surveys are considered to be out of date. The report will not have consideration for the Bat Conservation Trust guidelines (2023).
Bat Roost Report (ES Appendix 8.12)	December 2014	A suite of bat surveys were undertaken across 2014. Two adjacent trees were found to support bat roosts. The survey found the presence of major roosts within 10 km of the Scheme.	Bat survey guidance has been updated since 2014, and the existing surveys are considered to be out of date. The report will not have consideration for the Bat Conservation Trust guidelines (2023).
Dormouse Report (ES Appendix 8.14)	December 2014	A dormouse (*Muscardinus avellanarius*) presence / likely absence survey was conducted between May and November 2014. This species was not recorded during the survey.	Given the time lapsed since the survey, it is considered that it is now out of date.
Badger Survey	July 2014	A badger (*Meles meles*) survey was undertaken on 29th, 30th and 31st July 2014. Eight outlier setts were recorded.	Badgers are highly mobile, and so the survey data is considered out of date and not in accordance with the Badger Trust's best practice guidance (2023).
Geology and Soils	**Geology and Soils**	**Geology and Soils**	**Geology and Soils**

Document/Item	Date completed	Summary of Conclusion	Comment on Validity
Geology and Soil Assessment (ES Chapter 9)	April 2015	Baseline conditions were identified from desk-based studies including the following: The Groundsure report for the site has been reviewed to provide a preliminary indication of potential ground stability issues at the site. Outline of the bedrock and superficial geology given using British Geological Survey (BGS) data. There are two active groundwater abstractions recorded by the Environment Agency within the study corridor.	All data, guidance, and tools used have been updated since the assessment was completed. In particular, BGS updated to its latest Geology Viewer with more accurate and up to date records in 2022, and the Groundsure report will not feature the latest relevant information or be undertaken in line with up to date Law Society Guidance.
Geology and Soil Assessment (ES Chapter 9)	April 2015	A slight adverse effect (not significant) was found for geology and geomorphology due to the sterilisation of minerals in a Mineral Safeguarding Area (MSA). The mineral resource within the MSA in the study corridor is currently not being worked.	Given the time that has passed, it is unknown whether the mineral resources within the MSA are currently being worked and a review of recent planning applications/permissions would be required. In addition, the upcoming Minerals and Waste Local Plan may introduce new/altered MSAs.
Geology and Soil Assessment (ES Chapter 9)	April 2015	A slight/moderate adverse effect (not significant) was found for soils due to loss of Grade 2 agricultural land.	Given the time that has elapsed, the quality of agricultural land may have altered, and developments may have resulted in a loss of agricultural land.
Geology and Soil Assessment (ES Chapter 9)	April 2015	A slight effect (not significant) was found for groundwater for leaching and a neutral or slight effect (not significant) was found for end users for accumulation of gases for which mitigation of a Ground Investigation to obtain chemical data was recommended.	Any groundwater monitoring and contamination testing which was undertaken prior to commencement may now be considered out of date due to the time that has since elapsed.
Materials	**Materials**	**Materials**	**Materials**
Materials Assessment (ES Chapter 10)	April 2015	As part of the baseline conditions identification process 11 landfill sites for construction waste within close proximity to the site were identified.	Three of these landfills are no longer operational, and their capacity has likely significantly reduced since the assessment was undertaken.
Materials Assessment (ES Chapter 10)	April 2015	Effects of the proposed Scheme in relation to materials and waste were considered to be minor adverse (not significant) provided mitigation, primarily in the form of a Construction Environmental Management Plan (CEMP) and a Site Waste Management Plan (SWMP) is implemented.	All data and tools used have been updated since the assessment was completed. Policy and guidance regarding waste recycling and disposal for construction activities has changed since this assessment was undertaken, with greater emphasis placed on avoidance of landfill.
Noise and Vibration	**Noise and Vibration**	**Noise and Vibration**	**Noise and Vibration**
Noise and Vibration Assessment (ES Chapter 11)	November 2014	Baseline noise levels were identified by a noise survey. Attended noise measurements were taken at 4 locations for a period of 3 hours.	Given the time elapsed this data is considered out of date. Baseline noise levels may now be different.
Noise and Vibration Assessment (ES Chapter 11)	November 2014	The noise and vibration assessment found: 4 NSRs would experience a major adverse impact during construction. 5 NSRs would experience a major adverse impact during operation in the short term, 1 NSR would experience a major adverse impact during operation in the long term. The majority of NSRs would experience a decrease in noise levels.	All data, guidance, and tools used have been updated since the assessment was completed. Road noise maps were updated in 2019. In this latest dataset there are several Noise Important Areas (NIAs) to the north of the Scheme (IDs 14592, 7726, 7725, 11817*) which were not considered in the assessment.
Effects on All Travellers	**Effects on All Travellers**	**Effects on All Travellers**	**Effects on All Travellers**
Effects on all Travellers (ES Chapter 12)	April 2015	Site visits and assessment of aerial photography provided the baseline data	Given the time elapsed this site visit and aerial imagery is not considered to reflect the current baseline.

Document/Item	Date completed	Summary of Conclusion	Comment on Validity
		enabling an assessment of Views from the Road. In order to determine the level of stress caused by fear of accidents actual Personal Injury and Collision (PIC) data has been acquired for a 5-year period on the existing roads which surround the proposed Scheme.	Collision and injury data is assessed for the previous five years and is now out of date. The methodology relating to Effects on All Travellers no longer exists, and elements of this assessment have been incorporated into the Population and Human Health Chapter.
Community and Private Assets	**Community and Private Assets**	**Community and Private Assets**	**Community and Private Assets**
Community and Private Assets (ES Chapter 13)	April 2015	Baseline information was obtained from Defra's Agricultural Land Classification (ALC) (provisional), and, in the absence of a detailed survey all scheme agricultural land was assumed to be Grade 2.	There have been no known updates to the ALC since 2015; however if detailed surveys have since been undertaken these may reveal a greater understanding of the baseline. The methodology relating to Community and Private Assets no longer exists, and elements of this assessment have been incorporated into the Population and Human Health Chapter.
Community and Private Assets (ES Chapter 13)	April 2015	The proposed Scheme will involve 150 m^2 of land take from Private Property (Pykeways). This is only 7% of the area of the property, and therefore there will be a Minor Adverse effect on Private Property.	Given the time that has elapsed since this assessment, it is possible that land agricultural ownership relevant to the Scheme may have altered and so the assessment of private property is considered out of date.
Road Drainage and the Water Environment	**Road Drainage and the Water Environment**	**Road Drainage and the Water Environment**	**Road Drainage and the Water Environment**
Road Drainage and the Water Environment (ES Chapter 14)	April 2015	Baseline conditions of watercourses were informed by a site visit, with photographs presented. No surface water sampling has been undertaken to inform this ES. Water Framework Directive (WFD) Data on water quality was obtained for the River Wye and Norton Brook, but no information is held for other relevant watercourses. Water quality data was obtained from 2015 Water Framework Directive (WFD) Data (Cycle 2).	Given the time elapsed, these photos may no longer be representative of the current baseline. It is considered that water sampling of all relevant watercourses would be required. Data has now progressed to WFD Cycle 3 with updated quality assessments, in particular reductions in ecological and chemical quality from 'Good' to 'Moderate'.
Road Drainage and the Water Environment (ES Chapter 14)	April 2015	The road drainage and water environment assessment found, after mitigation: Neutral to slight to moderate adverse effects during construction including a slight to moderate adverse effect to Withy Brook due to increased sediment loading. Neutral effects during operation. Mitigation includes adherence to a CEMP during construction and a robust drainage system during operation.	All data, guidance, and tools used have been updated since the assessment was completed.
Flood Risk Assessment (ES Appendix 14.4)	February 2015	The proposed Scheme is located entirely in Flood Zone 1, but local flood risk was identified at Withy Brook and Norton Brook. A flood risk assessment including flood modelling at Withy Brook has been carried out which demonstrates that the Scheme does not pose unacceptable flood risk to users of the proposed SLR or increase flood risk to people and property elsewhere.	All data, guidance, and tools used have been updated since the assessment was completed.
Cumulative Effects	**Cumulative Effects**	**Cumulative Effects**	**Cumulative Effects**

Document/Item	Date completed	Summary of Conclusion	Comment on Validity
Cumulative Effects (ES Chapter 15)	April 2015	Cumulative assessment based on developments identified as of January 2015.	Given the time that has passed, it is considered that the development identified as relevant for the assessment of cumulative effects (Tables 15.2 & 15.3) are now out of date. The findings of the cumulative assessment as laid out in ES Chapter 15 are therefore no longer accurate. This would have a knock on effect on each of the discipline chapters where they assess cumulative effects. Changes in guidance for assessment of cumulative effects has changed since the undertaking of this assessment, and the guidance used would now be considered insufficient. No assessment of combined effects is given.
Construction Environmental Management Plan	**Construction Environmental Management Plan**	**Construction Environmental Management Plan**	**Construction Environmental Management Plan**
Draft Construction Environmental Management Plan (CEMP), submitted with ES	April 2015	This draft CEMP sets out how environmental protection will be managed during construction. It states the mitigation measures proposed to reduce environmental harm, monitoring requirements, the requirements for implementation method statements, etc. It states that it is to be a live document kept up to date by the contractor, which should be updated and reviewed 'on a regular basis'.	A final CEMP has only been produced for Stage 1 of works. Given the time that has passed, it is considered that this document is out of date.
Draft CEMP, submitted with discharge of planning conditions 6&7	November 2018	This draft CEMP sets out how environmental protection will be managed during construction, with the inclusion of topic-specific sub-plans as required by planning condition 7. It states that the Final CEMP, owned by the contractor, must be updated by the Contractor on a minimum of a six-monthly basis.	A final CEMP has only been produced for Stage 1 of works. Given that more than six months has passed, it is considered that this document is out of date.

As discussed further in Section 4, below, any future potential planning application may require new assessments to be undertaken in order to reflect the current environmental baseline, incorporate any changes to the Scheme and be in line with the latest legislation and guidance.

3.3 Review of Changes to Legislation, Policy and Guidance with respect to Environmental Assessment

Table 5: Review of Changes to Legislation, Policy, and Guidance with respect to Environmental Assessment

Legislation/Guidance	Date of revision/ introduction	Comment on Changes
General – National	**General – National**	**General – National**
EIA Regulations	Updated in 2017	A number of significant changes were introduced under the 2017 update, including the need to consider the effects on the environment arising from: • the vulnerability of development to major accidents and disasters (MADs); • impacts from waste or use of natural resources;

Legislation/Guidance	Date of revision/ introduction	Comment on Changes
		• impacts on and resilience to climate change; and • impacts on cultural heritage and landscape. The update also introduced the need for a consideration of the environmental effects of alternatives to the proposed development and to ensure the those preparing the Environmental Statement were 'competent experts'.
BNG	The provision for a 10% Biodiversity Net Gain to be a condition of planning permission in England was introduced under the Environment Act 2021, and is currently expected to come into effect in January 2024.	The requirement for developments to have undertaken a BNG assessment and to demonstrate BNG gain was not present at the time of the submission of the planning application, and would be relevant if either an amendment or full application is required.
DMRB guidance (including Interim Advice Notes)	• LA 101 – Introduction to environmental assessment, last updated in 2019; • LA 102 – Sustainability and environment, last updated 2019; • LA 103 – Scoping projects for environmental assessment, last updated 2020; • LA 104 – Environmental assessment and monitoring; • LA 105 – Air Quality, last updated 2019; • LA 106 – Cultural heritage assessment, last updated 2020; • LA 107 – Landscape and visual effects, last updated 2020; • LA 108 – Biodiversity, last updated 2020; • LA 109 – Geology and Soils, last updated 2019; • LA 110 – Material assets and waste, last updated 2019; • LA 111 – Noise and vibration, last updated 2020; • LA 112 – Population and human health, last updated 2020 (superseding Effects on All Travellers and Community and Private Assets); • LA 113 – Road drainage and the water environment, last updated 2020; • LA 115 – Habitats Regulations assessment, last updated 2020	Wholesale update to guidance for all disciplines. This makes it difficult to compare changes in the impacts between 2014 and the current baseline (for more detail, see Section 4 below).
Climate requirements	• LA 114 – Climate, last updated 2021.	National Highways guidance on the assessment of climate impacts to and from the Scheme was issued in 2019 for the first time, and updated in 2021. A climate chapter of the ES was not produced to inform the current planning application, but would now be considered to be required for a new planning application, and likely a S73 amendment.
General - Local	**General - Local**	**General - Local**

Legislation/Guidance	Date of revision/ introduction	Comment on Changes
The Herefordshire Unitary Development Plan (UDP) (Herefordshire Council, 2007)	Superseded in 2015 by the Local Plan – Core Strategy	Introduction of more specific environmental policies including: • LD3 – Green Infrastructure; • SD1 – Sustainable design and energy efficiency; • SD 2 – Renewable and low carbon energy • SD3 – Sustainable water management and water resources; and • SD4 – Waste water treatment and river water quality. Please note: Some of the assessments in the 2014 ES have used the 2007 plan whilst others have used the newer 2015 plan.
Cultural Heritage	**Cultural Heritage**	**Cultural Heritage**
Standard and guidance for historic environment desk-based assessment (The Chartered Institute of Archaeologists (CIfA), 2012)	Later version published in 2014 and updated in 2020	Updated references to latest Historic England guidance. This would need to be taken into account when either discharging conditions or preparing a future potential planning application.
Code of conduct: professional ethics in archaeology (CIfA, 2013)	Later version published 2014, updated 2022	Updated references to latest Historic England guidance. This would need to be taken into account when either discharging conditions or preparing a future potential planning application.
Management of Research Projects in the Historic Environment (Historic England, 2006)	Reissued 2015	Updated references to latest Historic England guidance. This would need to be taken into account when either discharging conditions or preparing a future potential planning application.
The Setting of Heritage Assets (Historic England, 2011)	Second Edition Issued 2017	Updated references to latest Historic England guidance. This would need to be taken into account when either discharging conditions or preparing a future potential planning application.
Scheduled Monuments & nationally important but non-scheduled monuments (Department for Culture, Media & Sport, 2010)	Updated 2013	Updated references to latest Historic England guidance. This would need to be taken into account when either discharging conditions or preparing a future potential planning application.
Seeing the History in the View: A Method for assessing Heritage Significance within Views (English Heritage, 2011)	Superseded by The Setting of Heritage Assets, 2017	Updated references to latest Historic England guidance. This would need to be taken into account when either discharging conditions or preparing a future potential planning application.
After ICOMOS, 2010 Guidance on Heritage Impact Assessment for Cultural Heritage Properties (International Council on Monuments and Sites, 2010)	Updated 2011, Integrated into the Guidance and Toolkit for Impact Assessments in a World Heritage Context (UNESCO, ICCROM, ICOMOS, IUCN, 2022)	Updated references to latest Historic England guidance. This would need to be taken into account when either discharging conditions or preparing a future potential planning application.
Herefordshire Landscape Character Assessment (Herefordshire Council, 2004)	Superseded by the Herefordshire County Landscape Character Assessment published 2023 (Herefordshire Council)	Updated references to latest Historic England guidance. This would need to be taken into account when either discharging conditions or preparing a future potential planning application.
Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-Excavation (English Heritage, 2002)	Second Edition published in 2011.	Updated references to latest Historic England guidance. This would need to be taken into account when either discharging conditions or preparing a future potential planning application.

Legislation/Guidance	Date of revision/ introduction	Comment on Changes
1992 Standards in the Museum Care of Archaeological Collections (Museums' and Galleries' Commission (1992)	Superseded by the Standards and Guidance in the Care of Archaeological Collections (Society for Museum Archaeology, 2020)	Updated references to latest Historic England guidance. This would need to be taken into account when either discharging conditions or preparing a future potential planning application.
Standard and Guidance for archaeological field evaluation (CIfA, 2009)	Updated in 2014.	Updated references to latest Historic England guidance. This would need to be taken into account when either discharging conditions or preparing a future potential planning application.
The Herefordshire Heritage Services [museum] document Standards for the Deposition of Archaeological Archives with Herefordshire Heritage Services (1999), as amended (Herefordshire Museum Services, 1999)	Superseded by the Collections Development Policy 2020-2024 (Herefordshire Museum Service, 2020)	Updated references to latest Historic England guidance. This would need to be taken into account when either discharging conditions or preparing a future potential planning application.
Landscape	**Landscape**	**Landscape**
Landscape Character Assessment Guidance for England and Scotland (Countryside Agency (CA) and Scottish Natural Heritage (SNH), 2002)	Superseded by Landscape and seascape character assessments guidance (Natural England, 2014).	This would need to be taken into account when either discharging conditions or preparing a future potential planning application.
Ecology	**Ecology**	**Ecology**
CJEU. (2018). Judgment of the Court (Seventh Chamber) of 12 April 2018. People Over Wind and Peter Sweetman v Coillte Teoranta.	New precedent	Mitigation can no longer be used to conclude no likely significant effects at the screening stage, a full appropriate assessment would be required.
The UK Post-2010 Biodiversity Framework (Joint Nature Conservation Commission & Defra, July 2012)	An updated Implementation Plan was produced in July 2018.	
National Planning Policy Framework (2023)	Updated in 2018, 2019 and 2023	Consideration of updates required. Particularly with regards to ancient woodland. The NPPF now states that "*development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons, for example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat.*"
Conservation of Habitats and Species Regulations 2017 (as amended in 2019). London: HMSO	Legislation has been updated in 2017 and 2019	Consideration of updated legislation required.
Environment Act (2021)	New legislation	Requires consideration, and is the legal driver for BNG assessment. Will require all relevant developments to achieve a minimum 10% net gain in biodiversity units relative to the site's baseline biodiversity value in the near future.
Countryside and Rights of Way Act 2000. London: HMSO	New legislation	Requires consideration
Herefordshire Green Infrastructure Strategy (HC, 2010)	Superseded by the Herefordshire Green and Blue Infrastructure Strategy (HC, 2023)	

Legislation/Guidance	Date of revision/ introduction	Comment on Changes
Guidelines for Ecological Impact Assessment (Institute of Ecology and Environmental Management, 2006)	Replaced by The Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM, 2018)	New survey and assessment guidance.
Institute of Ecology and Environmental Management (2006). Guidelines for Ecological Impact Assessment.	Guidelines for Preliminary Ecological Appraisal (2nd Edn.). Chartered Institute of Ecology and Environmental Management, Winchester (2017).	Updated guidance
Advice note on the lifespan of ecological reports & surveys. Chartered Institute of Ecology and Environmental Management, Winchester (2019).	New guidance	Guidance on the lifespan of ecology reports – maximum three years old.
Biodiversity Net Gain: Good Practice Principles for Development, A Practical Guide. CIEEM, CIRIA, IEMA (2016)	New guidance	A guide to BNG
Biodiversity Metric 4.0. Natural England (2023)	New metric	For application to BNG
The Biodiversity Metric 4.0 – User Guide, Technical Annex 1 & Technical Annex 2. Natural England (2023)	New guidance	Guidance for using BNG
UKHab (2023 The UK Habitat Classification System UKHabs Classification Version 2 published in 2023	New application	For use in BNG.
Ancient woodland, ancient trees and veteran trees: advice for making planning decisions. Natural England and Forestry Commission (2022)	New guidance	Requires consideration – states "*You should refuse planning permission if development will result in the loss or deterioration of ancient woodland, ancient trees and veteran trees unless both of the following applies:* - *there are wholly exceptional reasons* - *there's a suitable compensation strategy in place (this must not be a part of considerations of wholly exceptional reasons*)"
Habitats and species of principal importance in England. JNCC (2023)	Ongoing updates	Relevant species and habitats to be considered during survey scoping, fieldwork and assessment
Protected species and development: advice for local planning authorities. Natural England's Standing Advice on Protected Species	All advice updated in 2022	Updated advice to be considered
UK BAP (various)	Habitats and species of principal importance in England. Defra and Natural England (2022).	Updated list of species and habitats for consideration
Birds of Conservation Concern 4, British Trust for Ornithology (2015)	Birds of Conservation Concern 5, British Trust for Ornithology (2021)	Updated list of species for consideration
Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition). Collins, J.(ed) (2015). The Bat Conversation Trust. London.	Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). Collins, J.(ed) (2023). The Bat Conversation Trust. London.	Updated survey methodology and assessment guidance
Guidance Note 08/23: Bats and Artificial Lighting at Night. Bat Conservation Trust	New guidance.	Guidance regarding bats and lighting.

Legislation/Guidance	Date of revision/ introduction	Comment on Changes
& Institute of Lighting Professionals (2023).		
Badger Protection: Best Practice Guidance for Developers, Ecologists and Planners (England). Badger Trust (2023)	New guidance.	Updated guidance
Invasive Non-Native Alien Species (Enforcement and Permitting) Order 2019	New legislation.	Requires consideration of relevant invasive species
The Water Environment (Water Framework Directive (WFD)) (England and Wales) Regulations 2017	New legislation.	Requires consideration. Sets out requirements to prevent the deterioration of aquatic ecosystems; protect, enhance and restore waterbodies to 'good' status; and achieve compliance with standards and objectives for protected areas.
Environment Agency (2017). Freshwater macro-invertebrate sampling in rivers Operational Instruction 018_08. Environment Agency, Bristol, UK.	New guidance.	Requires consideration for aquatic invertebrate surveys.
Naura, M. (2021). River Habitat Survey Input and Analysis Software: Riverdene Consultancy. Version 1.5: January 2021.	New guidance.	Requires consideration for the assessment of hydromorphological condition of rivers for the WFD.
Riverdene Consultancy (2016a). Hydromorphology and geomorphology guidelines: Hydromorphological indices derivation: Instructions for calculating the Habitat Modification Score using River Habitat Survey data. (Based on Environment Agency guidelines for calculating HMS scores, 2003).	New guidance.	Requires consideration for the survey of watercourses.
Riverdene Consultancy (2016b). Instructions for calculating the River Habitat Quality Class using RHS. Based on Naura (2001) River Habitat Quality Assessment and Walker (2005) River Habitat Objectives (Environment Agency internal reports). Riverdene Consultancy	New guidance.	Requires consideration for the survey of watercourses.
WFD-UKTAG (Water Framework Directive – United Kingdom Advisory Group) (2020). UKTAG River Assessment Method Macrophytes and Phytobenthos: Phytobenthos - Diatoms for Assessing River and Lake Ecological Quality (River DARLEQ3).	New guidance.	Requires consideration for the survey of watercourses.
CJEU. (2018). Judgment of the Court (Seventh Chamber) of 12 April 2018. People Over Wind and Peter Sweetman v Coillte Teoranta.	Case law relating to the 2017 Regulations, the Habitats Directive and Birds Directive	For consideration for Habitat Regulations Assessment (HRA). This case held that; "it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site" (paragraph 40). This establishes that 'mitigation measures' cannot be taken into account at the screening stage, but they can be taken

Legislation/Guidance	Date of revision/ introduction	Comment on Changes
		into account in an Appropriate Assessment
Department for Levelling Up, Housing and Communities. (2021, February 24). Guidance: Habitats Regulations Assessments: Protecting a European Site	New guidance	For consideration for HRA.
European Commission. (2001). Assessment of plans and projects significantly affecting Nautra 2000 sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. Luxembourg: Office of Official Publications of the European Communities	New guidance	For consideration for HRA.
The Planning Inspectorate. (2017, November). Advice Note Ten: Habitats Regulations Assessment relevant to nationally significant infrastructure projects, Version 8. Retrieved November 07, 2021[1].	New guidance	For consideration for HRA.
The Planning Inspectorate. (2018). Advice Note Nine: Rochdale Envelope. Retrieved January 24, 2022[2].	New guidance	For consideration for HRA.
Geology and Soils	**Geology and Soils**	**Geology and Soils**
Contaminated Land Report 11 Model Procedures for the Management of Land Contamination (Environment Agency, 2004)	Withdrawn 2020 and replaced with the Land Contamination Risk Management (LCRM) guidance, last updated July 2023 (Environment Agency, 2023).	
The saved minerals and waste policies of the Herefordshire Unitary Development Plan (UDP) (Herefordshire Council, 2007)	HC Minerals and Waste Local Plan to be introduced to replace the saved minerals and waste policies of the Unitary Development Plan and would be in place by the time of any future assessment.	
Materials	**Materials**	**Materials**
Waste Strategy for Herefordshire and Worcestershire (Herefordshire Council and Partners, 2011)	Updated 2022, due to for review 2023.	
Noise and Vibration	**Noise and Vibration**	**Noise and Vibration**
Environmental Noise (England) Regulations 2006 (UK Government, 2006)	These regulations, the enactment of the European Noise Directive (2002/49/EC), were amended in 2018.	
Noise Action Plan for Major Roads (Defra, 2010)	Updated 2019.	
Effects on All Travellers	**Effects on All Travellers**	**Effects on All Travellers**
Rights of Way Improvement Plan (RWIP) (HC, 2007)	Updated to 2018-2028 version.	Builds upon discussions with the local community and reflects changes in needs.
Road Drainage and the Water Environment	**Road Drainage and the Water Environment**	**Road Drainage and the Water Environment**

[1] National Infrastructure Planning: https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/advice-note-ten/
[2] National Infrastructure Planning: https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/advice-note-nine-rochdale-envelope/

Legislation/Guidance	Date of revision/ introduction	Comment on Changes
Groundwater Protection: Policy and Practice (GP3) (Environment Agency)	Replaced by The Environment Agency's approach to groundwater protection (2018)	
Pollution Prevention Guidelines (PPGs) (Environment Agency, 2011)	Withdrawn 2015. Replaced by the Guidance for Pollution Prevention (GPP) (Environment Agency, 2021)	
Herefordshire Strategic Flood Risk Assessment (SFRA) (Herefordshire Council)	Updated 2019	

A considerable amount of the legislation / guidance which underpins the planning application for the Scheme has subsequently been updated or superseded, or newer guidance / requirements have been introduced. As discussed further in Section 10, any future potential planning application would require new assessments to be undertaken where guidance has changed significantly or did not exist previously.

4. Transport modelling and appraisal review

This section provides Herefordshire Council with a summary of the transport modelling and appraisal documentation used to appraise the Hereford Southern Link Road (SLR).

This note includes the following four sections:

1. A review of the available information relating to the planning application of the SLR and associated works (P151314/F[3])
2. A review of transport modelling and appraisal relating to the SLR undertaken since the submission of the planning application
3. Recommendations for the future transport modelling and appraisal of the SLR
4. Summary of the information presented in this note

4.1 Review of Available Information Relating to the Planning Application of the Hereford Southern Link Road

All documentation presented as part of the planning application has been reviewed, and from which the following has been concluded.

- The Hereford Multi-Model Transport Model (HMMTM) has been used to assess the SLR.
- HMMTM was developed by Amey, and subsequently modified by JMP Consultants Limited
- The model uses SATURN software alongside a suite of transport models for the town which collectively make up the HMMTM
- The model represents a 2012 base year, and forecast years of 2017 and 2032 – both of which were used to assess the SLR.
- The model represents an average weekday, and the following time periods:
    - AM peak hour (08:00-09:00)
    - Interpeak average hour (10:00-16:00)
    - PM peak hour (17:00-18:00)

This information was provided in the following three documents which were submitted as part of the planning application:

- 77. Transport Assessment Part 1
- 84. Transport Assessment Part 8
- 122. Briefing Note - Transport Impacts & benefits Arising from SLR

Through AECOM's work with Herefordshire Council on other projects, AECOM have had access to other documentation relating to the HMMTM. From this, the following information has been deduced:

2011.03 - Interim Forecast Report Rev East Route Options (TPi), March 2011

[3] Planning Search – Herefordshire Council

- HMMTM uses DIADEM software to undertake variable demand modelling to forecast car, public transport (bus, coach and rail), cycle and walk demand matrices

4.2 A review of transport modelling and appraisal relating to the SLR undertaken since the submission of the planning application

Since the submission of the planning application, additional transport modelling and appraisal work has been undertaken on the SLR. The additional documentation has been reviewed and is summarised below.

- The Hereford Transport Model (HTM) has been built to assess a range of transport measures and local plan / core strategy proposals alongside providing inputs to transport business cases and environmental appraisal.
- HTM was developed by WSP, on behalf of Balfour Beatty Living Places
- The model comprises of a full transport demand model, with separation highway and public transport assignments, which interact under the demand model. This allows transport schemes that impact the highway, public transport and active networks to be tested.
- The model uses PTV Visum software for the transport demand and public transport assignment models, and SATURN software for the highway assignment model.
- The model represents a 2016 base year, and forecast years of 2020, 2026, 2032, 2035, 2041 and 2051.
- The model represents an average weekday, with the following time periods being represented in the HTM
  - Transport demand model
    - AM peak hour (07:00-10:00)
    - Interpeak peak hour (10:00-16:00)
    - PM peak hour (16:00-19:00)
  - Highway assignment model
    - AM peak hour (08:00--09:00)
    - Interpeak average hour (10:00-15:00)
    - PM peak hour (17:00-18:00)
  - Public transport assignment model
    - AM peak hour (08:00--09:00)
    - Interpeak peak hour (11:00-12:00)
    - PM peak hour (17:00-18:00)
- The HTM demand model represents road (car, light goods vehicles, and heavy goods vehicles), public transport (bus and rail), and active modes (walk and cycle)
- The model has been developed in accordance with the September 2016 release of the DfT's Transport Analysis Guidance (TAG) Databook
- The transport modelling of the Hereford Transport Package assumes the following:
  - The SLR opens in 2020
  - The bypass (a continuation of the SLR) opens in 2026
  - The end of the LTP is 2032
- The transport modelling economic appraisal of the South Wye Transport Package considers the SLR (connecting the A49/B4399 roundabout with the A465) and the associated active travel measures in the South Wye area

- DfT's TUBA (v1.9.11) software have been used to economically appraise the transport user benefits of the South Wye Transport Package using TAG Databook May 2018.
- DfT's CobaLT (v2013.2) software have been used to economically appraise the accidents of the South Wye Transport Package using TAG Databook December 2016.
- The economic appraisal of the South Wye Transport Package (SLR and associated active travel measures) assumes a scheme opening year of 2020, and uses forecast years of 2020, 2026, 2032, 2041 and 2051 as inputs to the appraisal.
- The scheme costs of the South Wye Transport Package have been calculated in Q4 2018 prices, and total £34,719,000 (excluding maintenance) for both the SLR and active travel measures.
- The economic appraisal of the South Wye Transport Package has been undertaken over a 60-year period, from 2020 to 2079.
- This economic appraisal of the South Wye Transport Package has been undertaken using outputs from the highway assignment model only. Therefore, impacts to public transport and active travel users are not captured.
- The following table 6 summarises the benefit to cost ratio of the South Wye Transport Package as reported in February 2019.

Table 6: BCR South Wye Transport Package

Type	Benefits (£000s)
Travel Time	*£69.357*
Operating costs – fuel	*-£1,764*
Operating costs – non-fuel	*-£5,517*
Indirect taxes	*£4,216*
Greenhouse gas	*-£1,961*
Total (Present Value Benefits)	**£64,331**
Present Value Costs	**£23,444**
Benefit Cost Ratio	**2.74**
Value for Money Category	*High*

- In accordance with DfT's TAG, both a low growth and high growth sensitivity test has been undertaken of the South Wye Transport Package. The results of which are reported below.

Table 7: BCR Sensitivity testing South Wye Transport Package

Type	Benefits (£000s)		
	Core	Low Growth	High Growth
Total (Present Value Benefits)	£64,331	£55,559	£79,335
Present Value Costs	£23,444	£23,444	£23,444
Benefit Cost Ratio	2.74	2.37	3.38

This information was provided in the following three documents which were submitted as part of the planning application:

- Hereford Transport Model Demand Model, Demand Model Validation Report, WSP – February 2019
- Traffic Forecasting Report, Hereford Transport Package, WSP – July 2018
- South Wye Transport Package Economic Appraisal Report, WSP – February 2019

4.3 Recommendations

Following the review of the documentation available relating to the SLR, the below recommendations have been made for any future transport modelling and appraisal of the SLR.

- The transport modelling is undertaken in the latest strategic transport model available in the Hereford region that is suitable for the appraisal of the SLR.

- The latest transport modelling and appraisal of the SLR has been undertaken in a model that has been calibrated and validated to a base year of 2016, 7 years ago. It is recommended that any future work is undertaken in a strategic transport model with a more recent base year.
    - This is in accordance with TAG Unit M2.2[4] which states *"Former guidance (withdrawn sections of the Design Manual for Roads and Bridges) indicated that models should not be used without justification where the source data is more than five years old when used for detailed scheme appraisal because there might be significant changes to the travel patterns and traffic level. This simple threshold should not be used, as there can be significant changes that would make the use of more recent data inappropriate or there may have been little change and older data may be acceptable. Changes such as the closure or opening of a major retail centre or major transport infrastructure such as a new bypass would be expected to result in the need to collect and use more recent data."*
- The uncertainty log is reviewed to ensure any "near certain, or more than likely" transport interventions and developments are included in the transport modelling.
    - The uncertainty log was initially compiled in 2016. It is anticipated that this will need revising to ensure the forecast of the SLR is robust. This is likely to include updating the transport model forecasts to include the latest Herefordshire Local Plan (2021-2041).
    - This is in accordance with TAG Unit M45, which states "The purpose of the uncertainty log is to record the central forecasting assumptions that underpin the core scenario and record the degree of uncertainty around these central assumptions."
- The opening year of the SLR is reviewed and revised in any future transport modelling forecasts and appraisal.
- The scheme design of the SLR is reviewed to ensure the transport modelling reflects the latest scheme designs.
- The transport modelling of the SLR, and any associated schemes, is undertaken in accordance with the latest version of the DfT TAG.
- If the HTM is used for any future transport modelling and appraisal of the SLR, the forecasts are revised in accordance with DfT's TAG. TAG Unit M4 recommends that an adjustment is applied to the forecast years if the base year of the transport model been calibrated before the COVID-19 pandemic to account for the longer-term travel impacts of COVID-19.
    - It is well documented that the impact of COVID-19 significantly reduced trips during 2020, 2021 and in early 2022. The current transport network (Q3 2023) continues to see a reduction in commuting trips compared to pre-COVID-19, and fewer trips during the peak hours. The transport modelling used in the appraisal of the SLR was undertaken before the COVID-19 pandemic, and therefore the transport modelling and appraisal forecasts do not consider any changes to trip patterns or volumes.
    - This is in accordance with TAG Unit M4, which states "it is the Department's view and recommendation that this evident suppression of travel demand relative to a pre-pandemic projection of demand at this time should be appropriately represented in transport analysis. This is important particularly in appraisal and analysis supporting transport investment decisions. …In transport modelling terms, therefore, the guidance in TAG Unit M2.2 applies. That is, this is an event of a significant change in trip patterns. To account for COVID-19 related changes, trip *matrices based before the beginning of the pandemic should ideally be rebased, or if this is not possible, an appropriate adjustment applied to model inputs or outputs in a proportionate way."*
    - The economic appraisal of the SLR calculates that 27% of the Present Value Benefits of the SLR are from commuting trips, and 20% are from business trips. It is anticipated that reviewing the model forecasts in accordance with DfT's TAG, would reduce the benefits resulting from these two purposes, therefore reducing the Present Value of Benefits and the Benefit Cost Ratio, which may impact the Value for Money Category of the scheme.

[4] DfT TAG Unit M2.2 Base Year Demand Matrix Development, May 2020 - https://assets.publishing.service.gov.uk/media/5fbfbd998fa8f559e32b4d25/tag-m2-2-base-year-matrix.pdf
[5] DfT TAG Unit M4 Forecasting and Uncertainty, May 2023 - https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1161977/tag-unit-m4-forecasting-and-uncertainty.pdf

- Any future transport modelling is undertaken using the latest transport demand forecasts available in the NTEM and TEMPRO.
- The latest economic appraisal of the transport user benefits of the SLR has been undertaken in DfT's TUBA software. The version used was 1.9.11 (June 2018 release). It is recommended that any appraisal of the SLR uses the latest version of the software.
- The latest economic appraisal of the accidents associated with the SLR has been undertaken in DfT's CobaLT software. The version used was 2013.2 (2013 release) alongside parameter version 2016.2 (December 2016). It is recommended that any appraisal of the SLR uses the latest version of the software and parameters file.
- It is recommended that any future appraisal of the SLR reviews the:
  - Scheme costs
    - It is anticipated that the scheme costs would increase, at least in accordance with inflation and the cost of materials. An increase in scheme costs will increase the Present Value Costs of the scheme, and will reduce the Benefit to Cost Ratio, and therefore may impact the Value for Money Category of the scheme.
  - Cost profile
  - Opening year
    - It is anticipated that the opening year of the scheme would be delayed to at least 2024
  - Appraisal period
    - It is anticipated that the appraisal period would change from 2020 – 2079, to 60 years from the proposed opening year (e.g. 2024 – 2093). The DfT's TUBA software interpolates between modelled years, and assumes no growth in scheme benefits beyond the last modelled year, 2051. Assuming the same modelled years, but reviewing the appraisal period, is likely to impact the Present Value Benefits of the SLR as there would be more years where no growth in scheme benefits is assumed.
- The economic appraisal of the South Wye Transport Package was undertaken using outputs from the highway assignment model only. It is recommended that any future economic appraisal also considers the economic impact to public transport and active travel users as the scheme may generate mode shift.
  - For example, TAG Unit A5.5[6] states *"Even if a transport scheme is not aimed at active modes* specifically, it may have important effects on their use, particularly where it causes mode shift. For example, urban road improvements might increase car use, reducing the number of active mode users."

4.4 Summary

The documentation relating to the strategic transport modelling and appraisal of the Hereford Southern Link Road and associated works has been reviewed with respect to the Department for Transport's Transport Analysis Guidance. At the time the strategic modelling and appraisal was undertaken, February 2019, the forecast and appraisal of the scheme was considered to be in accordance with industry guidance.

As outlined in the recommendations, there are a number of refinements to the strategic transport modelling and appraisal of the SLR which should be addressed to ensure the work is consistent with the latest TAG issued by the DfT. These relate to a variety of topics, including the age of the strategic transport model, uncertainty log, representation of trip rates and travel patterns in the model and the impact of COVID-19, assumptions about the design and opening of the SLR, and ensuring the full impact of the scheme is captured in the latest version of DfT software.

[6] DfT TAG Unit A5.5 Highway Appraisal, January 2014 - https://assets.publishing.service.gov.uk/media/5fc8f2068fa8f5475152ab8c/tag-a5-5-highway-appraisal.pdf

Should this scheme require additional funding from the DfT, it is expected that Herefordshire Council will be asked to address the strategic transport modelling and appraisal which has been undertaken, and update traffic forecasts and economic appraisal to ensure they are in accordance with current DfT TAG.

5. Highway Design Review

This section of the report reviews the current planning application highway design to check compliance with the current design standards. This design check is based on the Parsons Brinkerhoff drawing '*Figure 3.3*' as submitted with the planning application and included in Appendix A. The check has not included the later options appraisal designs produced by WSP reference '*2019.02 - SWTP Option Refinement Report (WSP)'*. The design standard used for the original design was the Design Manual for Roads and Bridges (DMRB). The DMRB contains information about current design standards relating to the design, assessment and operation of motorway and all-purpose trunk roads in the United Kingdom. The standards that would have been used to design the SLR were superseded in 2020 by a new suite of documents to have a clear consistent format. Generally, the content of the standards from a technical perspective for the geometrical design of highways has not changed but has been made to be read in a style that clearly states what shall be done. The following paragraphs review the SLR compliance with current standards.

6. Geometric Review of Scheme

6.1 Horizontal and Vertical Alignment

According to the Hereford Planning Statement, the SLR has been designed to a 100kph design speed. The Clehonger Link has been designed for a 70kph design speed.

The alignment of the proposed SLR and Clehonger Link have been designed in accordance with TD9/93 'Highway Link Design' (Volume 6, Section 1, Part 1, DMRB, Highways Agency, February 2002), however this standard has been superseded by CD109 'Highway Link Design' issued March 2020. The Route Plan and Longitudinal Section for the SLR can be found in drawing number 'Drawing reference Figure 3.3' shown in Figure 1.

The horizontal alignment has been reviewed against CD109 (Issued March 2020) to understand whether it is compliant with the latest design standards. The SLR design utilises three horizontal curves with radii of 720m, while the Clehonger Link has a single horizontal curve of 360m radius which all meet the desirable minimum requirements as set out in CD109 Table 2.10. These curves would be required to have a superelevation of 5%, however the current plans and files provided on the planning portal webpage do not include any information regarding crossfalls so we have not been able to review this against the design for crossfall and superelevation.

In the proposed design, transitions have been provided as per CD109. Clause 4.12 With regards to the SLR, the transitions used for the 720m radii curves all have a length of 99m which is the correct transition length for the horizontal curves used. Use of the Equation in CD109 paragraph 4.13 shows that the transition length would be 99.1m when using a q value (rate of increase of centripetal acceleration) of 0.3 metres / sec3 which is acceptable. The transitions length for the 360m radii curve on the Clehonger Link has not been provided on the corresponding long section, however a scaled measurement off the available plan shows a single transition length for the western tie in to the B4349 has been used at a length of approximately 27m. To get a transition length of 27m, you would have to increase the q value above the maximum limit of 0.6 metres / sec3 and hence this would be a departure from standards. There is no transition to the eastern side but this is part of the approach to the roundabout and is therefore not required.

The vertical geometry of the proposed SLR and Clehonger Link design includes a combination of tangents and crest and sag curves. On the SLR, the longitudinal gradients along the tangents range between minimum -1.5% and maximum 5%. In the locations of the horizontal alignment where superelevation is required, the longitudinal gradient is greater than + or – 0.5% which meets the recommendations of CD109 clause 4.8.3. The edge longitudinal fall is required to be 0.5% minimum to ensure drainage of the scheme. Many of the transitions fall

within areas of low long fall, bottom of sags, tops of crests and gradients of 0.7% - Depending on the length the superelevation change is applied over there is a high chance of edge gradients being less than 0.5% with minimal crossfalls also resulting in flat spots, or undesirably long drainage paths if long change over lengths used. Rolling crowns are likely to be needed to ensure good drainage.

The maximum gradient for the proposed SLR, of 5%, is below the desirable maximum of 6% for an All-purpose single carriageway as outlined in CD109 Table 5.1 and therefore acceptable. On the Clehonger Link, the longitudinal gradients along the tangents range between minimum -1.84% and maximum 0.7%. In the locations of the horizontal alignment where superelevation is required, the longitudinal gradient is greater than + or – 0.5% which meets the recommendations of CD109 clause 4.8.3 (this is not a requirement). There are no issues with the maximum gradient of 0.7% if the highway drainage gullies have been spaced appropriately.

With regards to the SLR, the vertical geometry uses a combination of 3 crest curves and 3 sag curves. The three crest curves have K values of 100, 55 and 100 respectively whilst the 3 sag curves have K values of 26. The desirable minimum crest K value for a design speed of 100kph is given as 100 in CD109 Table 2.10 whilst a value of 55 is one step below the desirable minimum crest K value. Likewise, the desirable minimum sag K value for a design speed of 100kph is given as 26. In summary, the sag and crest curves meet the desirable minimum values, except for one of the crest curves which is one step below the desirable minimum. As for the Clehonger Link, it uses a single crest and sag curve with K values of 36 and 24 respectively. The crest curve is above the desirable minimum requirements from CD109 Table 2.10 of 30 while the sag curve is also above the corresponding desirable minimum requirement of 20.

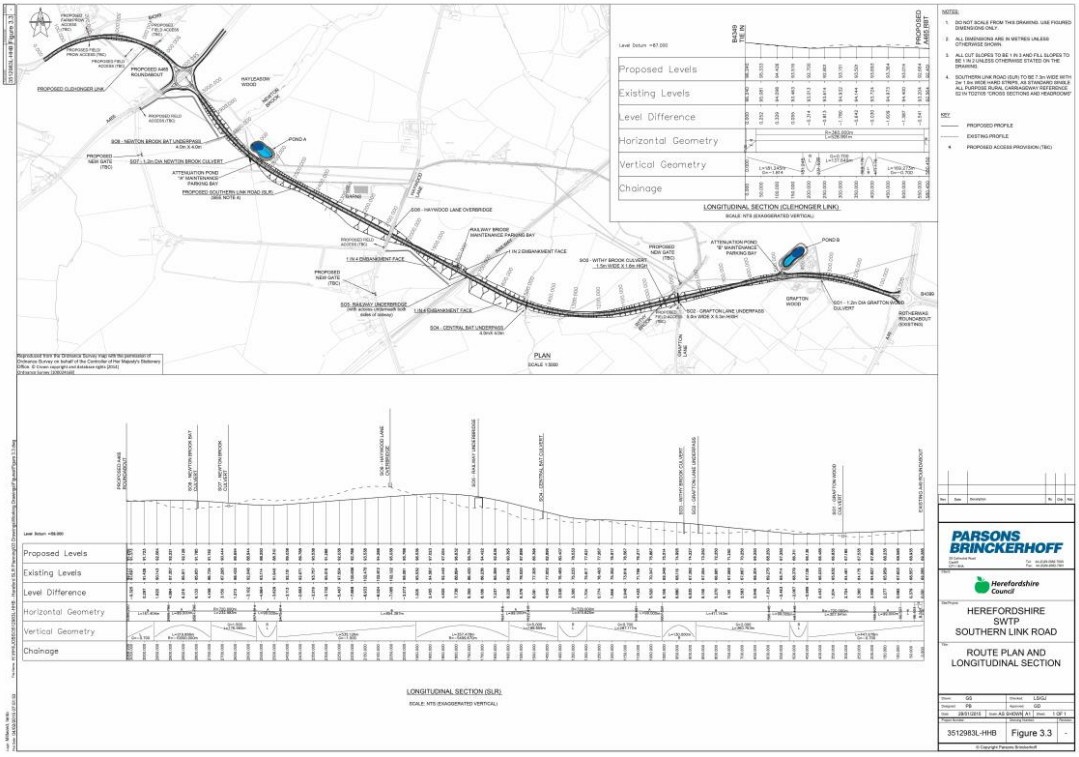


Figure 1 - Current Route Plan and Longitudinal Section Drawing

In summary for this section, there is a one-step relaxation in vertical curvature on the SLR for the crest curve with K value 55 located between chainages 1600.000 and 1950.000.

There is a horizontal departure from standards related to the horizontal geometry on the Clehonger Link where the transition length at approximate chainage 15.000 is shorter than the required length of 34m and uses a q value greater than 0.6 metres / sec3, this violates CD109 clause 4.14.

6.2 Cross-section and Lane Widths

The Planning Statement states that the SLR has been designed as a standard two lane single, all-purpose rural carriageway in accordance with Figure 4-3a of TD27/05 ‘Cross-sections and Headrooms’. This standard has been superseded by CD127 ‘Cross-sections and Headrooms’, however a review of the same cross-section

(Figure 2.1.1N1e) in the updated standard shows no change in the dimensions of the cross-section components of the SLR design. The planning statement noted that the Clehonger Link also used the same cross-section except for the omission of the hard strips giving an overall hard surfacing width of 7.3m.

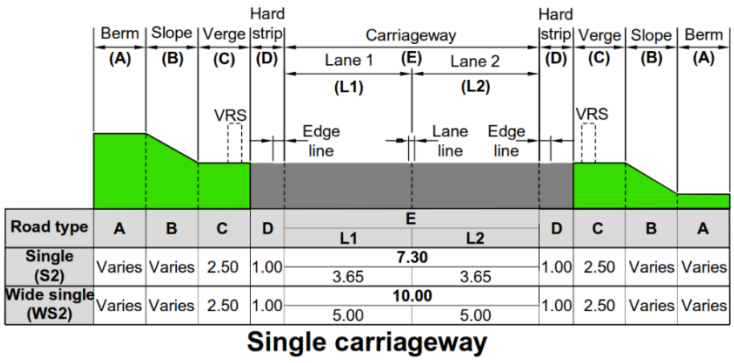


Figure 2 - Illustrative Cross-Section of the proposed Southern Link Road

Measurements were taken along both the SLR and the Clehonger Link and the widths for the lanes and hard strips areas were found to match the dimensions from Figure 2.1.1N1e (shown in figure 2 above). The verge width is 2.5m along most of the scheme route however it has been widened where other design features like drainage pipes have had to be accommodated. These changes are deemed acceptable.

6.3 Overtaking Sections

The scheme should have greater than 30% overtaking areas to conform with CD109 Paragraph 9.2 and 9.4. The design has approximately 10% overtaking based on measurements from the pdf's which would result in a departure from standards. This needs to be reviewed in more detail when the extent of the barriers and 3D model file becomes available.

The design has been reviewed to gather whether overtaking would be safe based on the current lining which uses Diag. 1008.1 from the Traffic Signs Regulations and General Directions centre lines along the whole length of the SLR and Clehonger Link with the exception of the 1004.1 warning lines which have been used on the approach to the roundabouts.

Figure 9.23N2 from CD 109 shows a curve selection chart for horizontal curves and recommends whether overtaking would be suitable or not. With regards to the SLR (where the design speed is 100kph), it states that non-overtaking sections should be designed using the radii shown in section D, which the 720m radii curves along the SLR fall into. It is also suggested that the non-overtaking sections be accompanied with appropriate warning lines (Diagram 1013.1 marking from Chapter 5 Traffic Signs Manual). A review of the Clehonger Link horizontal curve with radius 360m (design speed is 70kph) also shows that it should be a non-overtaking section as per section D.

Therefore, the road marking design needs to be updated to ensure that the diagram 1008.1 centre lines are replaced with diagram 1013.1 non-overtaking warning lines between the chainages where the horizontal curves are present as currently the design suggests overtaking would be allowed throughout the SLR and Clehonger Link.

6.4 Stopping Sight Distance

In the absence of a 3D design model and AutoCAD files for the scheme, the pdf files have been used to review the SLR and Clehonger Link mainline design against the Stopping Sight Distances (SSD) required, in accordance with CD109.

The desirable minimum SSD required along the SLR, both westbound and eastbound, is 215m for a design speed of 100kph in accordance with CD109 Table 2.10. A review of the SSD horizontally shows there may be obstructions to the visibility splays. While there are no issues with the embankments, it is probable that Vertical Restraint Systems (VRS), cuttings and the highway boundary fence will affect these visibility splays and will require the SSD to drop some steps below the desirable minimum recommended standard.

It is not certain, without more detailed design information, how many steps below the desirable minimum the SSD will need to deviate but it is clear that some type of VRS will need to be provided on the SLR. The planning statement states, in paragraph 2.11.1, 'The embankments (see Figures 2.2 and 2.3 from the planning statement) will have a 1 in 2 (26°) slope which will be slackened to 1 in 4 (14°) on the southern slopes adjacent to the railway crossing in order to reduce the impact of the route from the existing properties on Haywood Lane'. The steep embankments would be accompanied by high speeds on the SLR and two large drainage attenuation ponds, therefore, it is recommended that these hazards be evaluated further with a Road Restraint Risk Assessment Process (RRRAP) and a VRS provided as determined by the outcome of the RRRAP. Currently, the only VRS provided from the design documents reviewed is in the form of H4a containment barriers at the Railway underbridge located between chainages 1700.000 and 1800.000. The VRS currently proposed, in general, is deemed potentially inadequate to deal with the hazards to vehicles along the SLR and any additional VRS will have the potential to impact on the SSD and possible addition of relaxations and departures from standard.

The highway boundary fence appears to follow the toe of the embankment around the majority of the SLR. This can be seen from the landscape mitigation proposals plan (drawing number 'Figure 7.4.1') however it is difficult to pinpoint the exact location of the fence since the scale of the drawing is at 1:5000 and no AutoCAD file has been received which includes the fencing. Nonetheless, for vehicles travelling westbound, there is a potential issue with the visibility splays between 300.000 and 460.000 which may cross the boundary fence. For vehicles travelling eastbound on the SLR, there may be issues with the splays being impacted by the fencing between chainages 1320.000 & 1070.000 and 2600.000 & 2660.000. To avoid the issues of the boundary fence, the SSD could be dropped to one step below the desirable minimum.

A vertical check of the SSD for the SLR shows that the desirable minimum SSD can be met along the majority of the vertical profile however between chainages 2050.000 and 1500.000, where the crest curve is one step below desirable minimum, the achievable SSD drops from 215m to 160m which is also one step below the desirable minimum. This combination of one step below the desirable minimum for both SSD and vertical curvature results in a departure from standard.

The desirable minimum stopping sight distance required along the Clehonger Link Road, both westbound and eastbound, is 120m for a design speed of 70kph. Whilst this is achievable travelling eastbound towards the proposed roundabout, the desirable minimum SSD cannot be achieved for vehicles going westbound as the majority of this road is in cut and the visibility splays are obstructed by the earthworks. To ensure there are no obstructions to the visibility envelope, the SSD has to drop one step below the desirable minimum to a distance of 90m. This is an allowable relaxation from standards as long as it is not in the vicinity of a junction as is the case for the eastbound direction. A VRS is not proposed in this area from the design plans, it is assumed that the RRRAP assessment concluded no VRS was required therefore there are no obstructions in achieving SSD of 90m. There were no issues identified with the SSD when doing a vertical check of the Clehonger Link Road.

6.5 Direct Accesses

Seven direct accesses are proposed, according to the Route Plan shown in drawing 'Drawing reference Figure 3.3' Figure 1. The geometry and visibility requirements have been reviewed using CD 123 'Geometric design of at-grade priority and signal-controlled junctions'.

All the accesses meet the geometric requirements of CD 123, with the majority of the accesses utilising minimum 2m splayed entries, whilst one of the accesses on the Clehonger Link Road uses 6m curves instead which is acceptable. The accesses were all assessed for visibility and while two of the three accesses on the Clehonger Link Road achieved the desirable minimum SSD of 120m, one of the accesses required the setback to be reduced to 2m and the SSD reduced to approximately 70m which is 2 steps below the desirable minimum. The access provided on Haywood Lane (design speed of 70kph) would require the hedges to the north of the junction to be removed from within the visibility splay for the SSD of 120m to be achieved even when the setback is reduced to 2m. The impact on the hedges cannot be avoided by going below the desirable minimum SSD, since a portion of the hedgerow will still require removing. It is difficult to confirm from the Ordnance Survey map but reducing the setback from 4.5m to 2m may allow the desirable minimum SSD of 120m to be met when measuring a visibility splay to the south of the junction. The design needs to be confirmed to assess if it is possible to remove any of the hedge line. It may require a departure from standard if the hedge cannot be removed.

6.6 Maintenance Hardstanding Areas

There are two maintenance hardstanding laybys provided on the SLR, for which the geometry and visibility requirements have been reviewed against CD 169 'The design of lay-bys, maintenance hardstandings, rest areas, service areas and observation platforms'.

The maintenance laybys meet the geometric requirements set out in CD169 with the layby having a parking area width of 3.5m. The length of the parking area is 25m. These meet the requirements of a 'simple maintenance hardstanding' area as shown in Figure 7.10.1a in CD169.

Visibility was also measured using the methodology laid out in clause 7.2 of CD169. Visibility is achieved using the desirable minimum SSD of 215m, however this is based on the current design which doesn't include VRS along the SLR, other than at the railway underbridge around chainage 1740.000. If VRS is introduced, it will obstruct a portion of the visibility envelope and possibly result in relaxations or departures from standards.

6.7 Roundabout Design

The SLR and Clehonger Link roads have interfaces with two roundabouts, one is an existing roundabout at the A49 / B4399 junction to the east where a new western arm is proposed whilst the second will be a new roundabout, proposed at the junction between the A465 and B4349 and will have 4 arms – the SLR will form the eastern arm whilst the Clehonger Link will form the western arm.

The geometric design and visibility requirements for roundabouts were reviewed in accordance with CD116 'Geometric design of roundabouts' for the western arm on the A49 / B4399 existing roundabout and all the arms on the proposed A465 / B4349 roundabout. The detailed review can be found in the Appendix B.

With regards to the existing roundabout at the A49 / B4399 junction, where a new western arm is proposed, the geometric design is acceptable in the most part. However, there is a safety concern regarding the traffic island on the western arm where the kerb line isn't tangential with the central island. A review of the road marking plan shows that hatched markings have not been provided on the side of the island for eastbound traffic approaching the roundabout, which could have been used to adjust vehicle paths, so the edge of the markings were tangential with the central island. The current arrangement increases the likelihood of vehicle paths overlapping. The entry width on the western arm is currently circa 7.5m so there is potential scope to adjust the lane width to accommodate the hatched markings. Further work is suggested to remove this safety concern. There are no issues with the visibility requirements of the western arm of this roundabout for the most part, however the location of the highway boundary fence may impact the approach visibility. Without the 3D digital files in AutoCAD format it is difficult to ascertain the exact location of the fence and whether it intrudes into the visibility splay. A detailed review of all the roundabout arms has not been undertaken at this point in time due to the lack of detailed information.

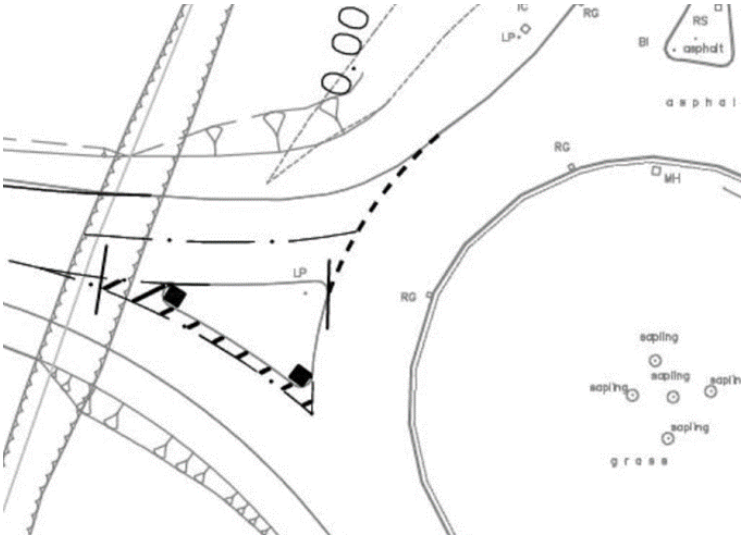


Figure 3 - Proposed markings at the traffic island on the proposed western arm of the A49 / B4399 roundabout

The proposed A465 / B4349 roundabout complies with the requirements of CD116 and there are no departures from standard identified. It is worth noting here that this review was carried out based on the kerbline reference file shown in the '0500 Series Drainage and Service Ducts Sheet 11 of 13' which is dated 13/04/2016 received from HC. This reference file seems to supersede that which is shown in the 'Traffic Signs and Road Markings' plan which was used to review the A49 / B4399 roundabout (the geometry for this roundabout did not change). Since the Traffic Signs and Road Markings plan does not reflect the latest geometry for the A465 / B4349 roundabout, the road markings at the traffic islands have not been reviewed. The current kerbline arrangement however, without using the hatched markings either side of the traffic island, ensures that vehicles entering the roundabout will not overlap each other on all the arms except the Clehonger Link Road. When the traffic island kerbline on the western arm is projected towards the central island, it is not tangential and therefore the kerbline needs to be adjusted or hatched markings should be added to maintain appropriate entry width and ensure vehicles do not overlap each other when entering the roundabout. The Traffic Sign and Road Marking plan did not show the locations of the chevron signs that would need to be placed at the A465 / B4349 roundabout. These signs should be added to the roundabout and placed, so they do not intrude on the visibility splays for drivers entering the roundabout or looking right. Also, the approach visibility on the eastern arm needs to be reviewed further once details on the accurate location of the highway boundary fence have been confirmed as it may go outside of the highway boundary.

6.1 Summary

The documentation received relating to the highway design geometry of the Hereford Southern Link Road and associated works has been reviewed with respect to their compliance with the Design Manual for Roads and Bridges It is noted that there is limited information available and that the design has been further revised but was not made available for this review. The design reviewed has some issues within it which would require

departure from standards to be approved. It is believed that a departures report is available but this was not shared for review so no comment can be made to the completeness of the departures.

There is also a concern that the revised standards for drainage are more onerous than those used when the scheme was originally developed. A review of the drainage design should be undertaken to ensure compliance with current standards.

No details were provided for a vertical restraint barrier system (VRS) A review of the VRS requirements should be undertaken to ensure that a Road Restraint Risk Assessment has been undertaken and informed the design.

7. Structures

7.1 Overview

A review of the Southern Link Road (SLR) outline structures designs contained in the planning application reference P151314/F, which was granted planning permission in 2016, has been undertaken as detailed below.

The Southern Link Road (SLR) compromises a new road between the A49/B4399 and A465/B4349 junctions, to the south of Hereford. The Planning Statement identifies eight structures on the proposed scheme consisting of: two bridges, one vehicle underpass, two bat underpasses and three culverts carrying watercourses.

7.2 Available Information

There are limited drawings of the structures made available. Of the eight structures, only six are identified on the plan included in drawing 3512983L-HHB-Figure 2.2 Rev. A (Sept. 2015), and these are:

S01 – Grafton Wood culvert

S02 – Grafton Lane Underpass (typical section included)

S03 – Withy Brook Culvert

S04 – Central Bat Underpass (typical section included)

S05 – Railway Underbridge (typical section included)

S06 – Haywood Lane Overbridge

However, the Planning Statement does give descriptions of all the eight structures, and these are summarised in Table 8 below:

Table 8: SLR proposed structures.

Structure Ref	Name	Description
S01	Grafton Wood culvert	No details provided
S02	Grafton Lane Underpass	5m width a minimum headroom of 5.3m spanning over Grafton Lane
S03	Withy Brook Culvert	Standard precast concrete culvert, skewed to road alignment, with security gates
S04	Central Bat Underpass	Has a clear opening of 4m by 4m for bat access

S05*	Railway Underbridge	32.9m single span, integral steel composite deck, spanning over a railway line. 5.1m minimum headroom to be provided and 4.5m maintenance access track to be provided on either side of the Network rail land boundary.
S06	Haywood Lane Overbridge	A single span, integral steel composite deck, spanning over Haywood Lane. Further information.
S07	Newton Brook Culvert	Standard precast concrete culvert, skewed to road alignment, with security gates
S08	Newton Brook Underpass	Has a clear opening of 4m by 4m for bat access

*It is noted that a General Arrangement drawing (3512983L-HHB-S05 rev. B) of the Railway Underbridge was produced in January 2016. The filename indicates that this is an AiP (Approval in Principle) drawing.

7.3 Validity of Structures Design and Next Steps

It is not clear whether Approval in Principle (AiP) documents have been prepared for these structures, and due to the limited information, that has been available, it has not been possible to review the outline designs and whether they can be implemented.

Nonetheless, should AiPs had been produced in accordance with the DMRB standard BD 2/12 Technical Approval of Highway Structures, which was current at the time, the validity of which would have expired. Clause 2.29 of BD 2/12 states that an AiP is valid for three years after the date of agreement with the Technical Approval Authority (TAA).

As the validity of any AiPs, which may have been produced at the time, would have expired, they will need to be updated and to reflect and incorporate changes to the latest suite of DMRB standards. It is not clear, due to the limited information provided, whether Detailed Design (For Construction) drawings and specifications had been produced or design documents had been produced up to planning stage: AiPs and General Arrangement drawings. Any Detailed Design packages produced at the time ought to be checked and updated to comply with the current standards.

In addition, it is advisable to engage with third parties if any of their requirements have changed. Specifically, for S05 Railway Underbridge and the culverts carrying watercourses, it is necessary to initiate conversation with Network Rail and the Environment Agency respectively, to ascertain whether their requirements have been modified.

8. Active Travel Review

8.1 Overview

This section considers the potential for implementation of active travel measures along the Southern Link Road. The purpose of this is to assess the space and demand for active travel measures in the scheme. The existing reports were assessed along with the drawings and other documentation that had previously been provided by other parties.

The Hereford Transport Package and the South Wye Transport Package reports by WSP have included for assessing the possibilities of improving active travel around Hereford. While the reports discuss the improvement of active travel around the South Wye area and in Hereford centre, they do not include for active travel measures to be implemented along the route of the SLR. The conclusion of these reports highlighted possible areas for improvement which mostly consisted of recommendations for improvement to walking and cycling infrastructure on Belmont Road and better active travel connectivity to the Hereford Enterprise Zone. Although the reports were published in 2018 and 2019 the demand summaries can be interpreted the same at this time, however, the design standards used have since been superseded by Local Transport Note (LTN)1/20 on Cycle Infrastructure

Design. The reports suggest shared footway/cycleways, while LTN 1/20 would suggest segregated cycle tracks are required along the SLR.

As the above active travel measures are beyond the extents of the SLR scheme they have been excluded from further review in this report

Additional reviews for Active Travel are being undertaken by Herefordshire under the Herefordshire local plan, Masterplan, County Cycling plan and Local Cycling and Walking Infrastructure Plans.

8.2 Design Requirements

LTN 1/20 was published in July 2020 to improve the cycling design standards that were previously available to improve how active travel can better be implemented into highway improvements. The transport note provides a table with the recommended appropriate protection that should be provided for cyclists of all levels at different design speeds. The table can be seen below. Due to the SLR having a design speed of 100kph and the Clehonger link having a design speed of 70kph it can be seen that any proposed active travel measures for the Southern Link Road should include a fully kerbed cycle track.

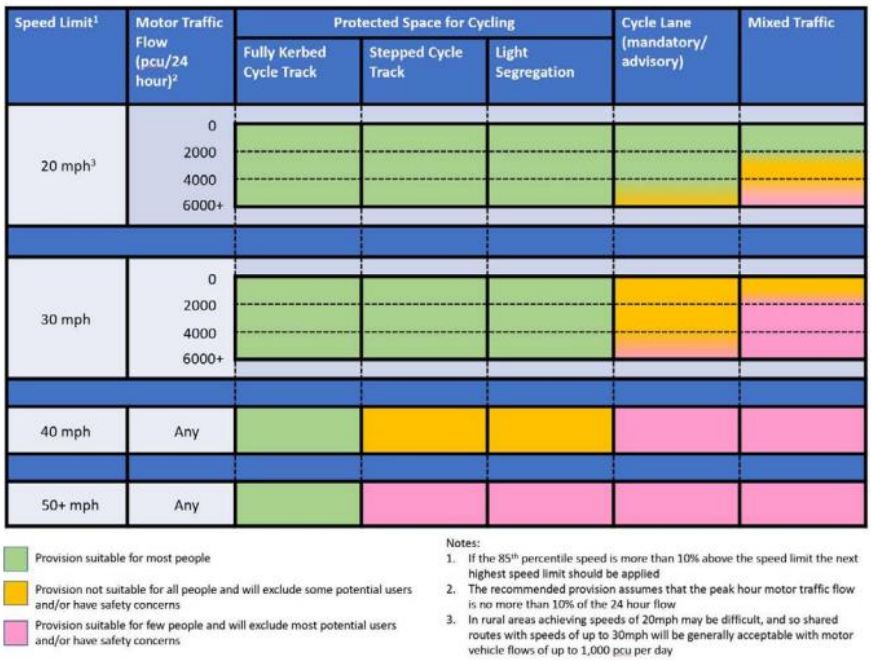


Figure 4 - LTN 1/20 appropriate protection requirements

The existing corridor design for the Southern Link Road consists of two 3.65m wide carriageway lanes with a 1m hard strip at either edge before joining the verge which consists of various widths across the scheme, this equates to a total hard standing corridor width of 9.3m. There are six proposed bridges/culverts across the SLR including over the railway which along with the restricted red line boundary provide major constraints for the consideration of active travel measures.

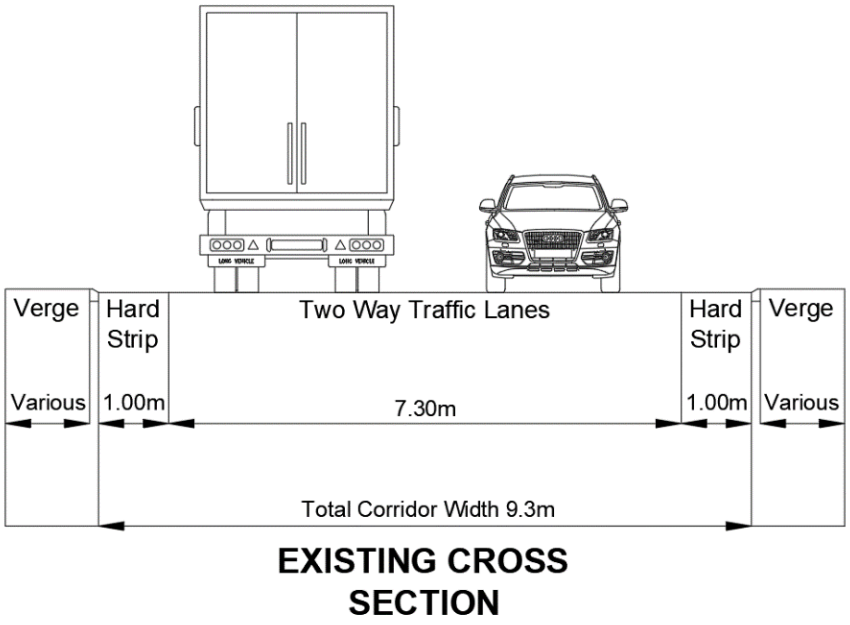


Figure 5 – Existing design cross section

LTN 1/20 refers to desirable minimum widths for cycle tracks and traffic separation. In the SLR case, the desirable minimum protected space for the 2-way cycle track is 3m. While the desirable minimum separation between carriageway and cycle track along a 60mph road is 2.5m. Also included is a 2m desirable minimum footway. Using these design parameters, the new total corridor width becomes 15.8m not including the verge to the side without the active travel measures. The assumption for the active travel measures is to replace the existing corridor with the active travel corridor about the centre line of the existing design with the active travel measures placed on the north side of the scheme, this will alleviate the need to redesign the alignment of the existing SLR design. The proposed active travel measures considered will require an additional hard standing width of 6.5m to the north. The proposed active travel corridor is shown below. It should be noted that there may be scope to reduce the footway / cycleway width to absolute minimum with a shared facility which may be more appropriate at this rural location.

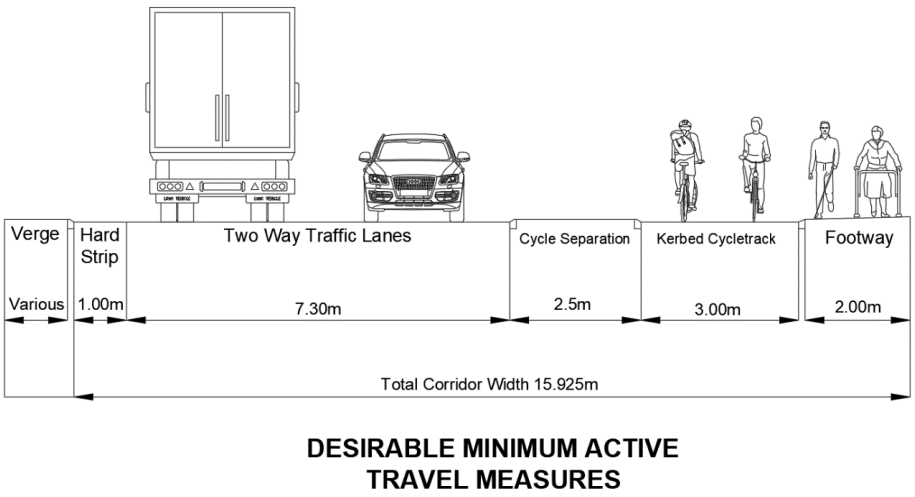


Figure 6 - LTN 1/20 Desirable minimum cross section

8.3 Demand

The demand for cycle infrastructure for the SLR is important to understand when considering active travel options. Hereford Enterprise Zone (HEZ) has been identified as a key location to improve active travel connectivity between areas of Hereford. The B4399 which runs between HEZ and the SLR junction with the A49 currently has no cycle infrastructure and is a similar design to the existing SLR design. To include active travel measures on this section of the SLR and end them with no further cycle infrastructure improvements on the B4399 would not be best practice and would not help in encouraging more people to use active travel to access the HEZ.

Grafton Lane is the highest demand creator for active travel on the SLR. National Cycle Route 46 runs along Grafton Lane with an off carriageway shared cycle route approximately half a mile north of its intersection with the SLR continuing into the centre of Hereford. National Cycle Route 46 runs from Bromsgrove in the West Midlands to Neath in Wales and so presents high cycle demand. The connection of this cycle route to the SLR could be an important factor in the proposal of active travel measures to support better cycle connectivity to the surrounding areas and settlements.

Clehonger is around 2 miles west of where the SLR will meet the A456 along the B4349. If active travel measures were available along the SLR then it may help to promote the use of active travel for people in Clehonger and the surrounding area to access Hereford City Centre by utilising access to National Cycle Route 46. However, as previous reports have mentioned, it may be more beneficial to provide this demand with the improvements of cycle connectivity along the A465 and the A49 as these routes provide a more direct journey into the city centre.

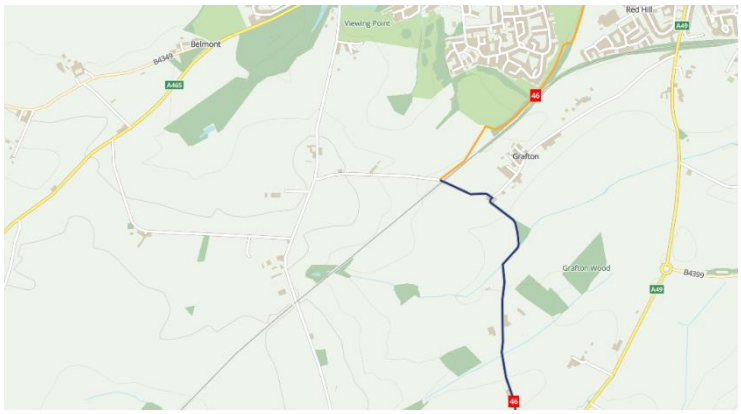


Figure 7 - National Cycle Route 46

Any future developments, including residential or industrial, in South Wye and the surrounding area may increase the demand for active travel measures along the SLR. However, without an appreciation for the potential growth of this part of Hereford, this has not been considered.

8.4 Constraints

The constraints of implementing the active travel measures discussed along the SLR are attributed to a restriction of space, either due to the addition of active travel extending beyond the red line boundary for the scheme or restrictions at structures across the project. The requirement of 6.5m of extra hard standing width presents difficulties within the existing proposals as active travel measures were not considered during the initial design.

8.5 Summary

The active travel measure presented above cannot be accommodated within the existing red line boundary due to the larger cross sectional width required along the length of the route and at pinch points such as the rail and road bridges

A review of alternative active travel measures should be undertaken in order to ensure links to existing routes are enhanced and integrated where possible within the existing red line boundary.

9. Commercial Review

9.1 Commercial review of Full Business Case

A review of the cost estimate for the SLR has been undertaken. Due to the limited information that has been available it has not been possible to undertake a full cost estimate review of rates and items. This cost estimate has therefore been limited to a review and uplift of the values identified in the Financial Case report for the South Wye Transport Package. The Financial report included the Southern Link Road and a series of active travel measures in Hereford. The active travel measures have been removed from this review as they are assumed to be delivered under a separate commission.

It has been concluded that it will be difficult to add active travel measures to the existing Hereford Southern Link Road scheme within the current red line boundary. Therefore, no cost estimate has been undertaken at this time.

The scheme costs in the full business case were developed by Balfour Beatty Living Places (BBLP) Table 9 includes the BBLP / FBC costs as described below.

- Construction activities
    - Based on detailed construction activity schedule from BBLP in table 9 and review of tender documents returned
- Third party costs
    - Costs for Statutory Undertakers at £1.09 million based on budget estimates provided by the four affected utility providers (Dŵr Cymru / Welsh Water, Western Power Distribution, Cadent and BT Openreach);
    - *National Highways (formerly Highways England) agreed commuted lump sum of £89,025; and
    - Network Rail costs cover items such as Basic Asset Protection Agreements (BAPA) for the design and construction phases and the potential relocation of a mast. A BAPA for the design phase was agreed with Network Rail for a cost of £25,000.
- Professional Fees
    - Construction phase supervision and project management costs have been based on an estimate of 5% of construction activities and third party costs to give an estimate of £941,763
    - Design fees for the scheme are estimated at £6.4 million (rounded to the nearest £0.1 million) and covers design and development fees to date and forecast costs up to the construction phase.
    - Adding the construction phase supervision and project management costs to the design fees, as well as accounting for costs incurred by Herefordshire Council project management team during this period, provides a cumulative professional fees total of £7.4m (rounded to the nearest £0.1m.
- Land Costs
    - Land costs for the scheme at January 2019 are anticipated to be £2.0 million including £191,387 spent on land purchased to date, with a further £204,600 of land costs following exchange of contracts with a landowner. The remaining land costs are assumed incomplete

unless otherwise confirmed by HC and will require to be completed following confirmation of CPO/SRO Orders.

- Risk and contingencies
    - A Quantified Cost Risk Assessment (QCRA) was prepared based on the DfT prescribed four-step process in the FBC financial case. The mean post-mitigated cost is £1.4m (rounded to the nearest £0.1m).

An exercise of uplifting the original costs produced by BBLP for the Southern Link Road Project from Q2 2018 (index 326) to Q3 2023 (index 386) with the TPI increasing by 18% in this period. The indexes used for the uplift are from BCIS and can be found in Appendix C. This exercise covers the price increase from when the original costs were produced (Q2 2018) as described above to today's date (Q3 2023). BCIS predicts TPI to increase by a further 13% from Q3 2023 (today) to Q1 2027 (potential project start date). The exercise was split as per the original split by BBLP and can found below: SLR Risk-Adjusted Cost Estimate Table 9.

The costs have been inflated to Q2 2027 rates in the right column (in both table 9 and 10). These costs exclude construction inflation to the midpoint of the project and includes tender inflation up to Q2 2027.

There is a discrepancy between the costs in the SLR Risk adjusted cost estimate in table 9 below which was taken from the FBC report compared with the detailed construction activity costs in table 10 below. This should be investigated to ensure that the overall cost is accurate.

Table 9: SLR Risk-Adjusted Cost Estimate – with AECOM TPI increase

SLR Risk-Adjusted Cost Estimate	SLR Risk-Adjusted Cost Estimate	SLR Risk-Adjusted Cost Estimate	SLR Risk-Adjusted Cost Estimate	SLR Risk-Adjusted Cost Estimate
WSP DESCRIPTION	BBLP COST	AECOM RECALCULATION AMOUNT	REBASED COSTS FROM Q2 2018 TO Q3 2023	REBASED COSTS FROM Q3 2023 TO Q2 2027
Construction Activities	£17,638,184	-	£20,884,476	£23,589,718
Third Party Costs	£1,220,270	-	£1,444,860	£1,632,018
Professional Fees	£7,380,888	-	£8,739,334	£9,871,372
Land Costs	£2,000,000	-	£2,368,098	£2,674,847
Risk and Contingencies	£1,486,591	-	£1,760,197	£1,988,201
Risk-Adjusted Cost Estimate	£29,679,342	**£29,725,933**	**£35,196,965**	**£39,756,156**

The below Table 10 consists of detailed construction activity schedule from BBLP.

Table 10: FBC Construction Costs – with AECOM TPI increase.

SLR – Construction Costs	SLR – Construction Costs	SLR – Construction Costs	SLR – Construction Costs	SLR – Construction Costs
SERIES	DESCRIPTION	AMOUNT	TOTAL	AECOM RECALCULATION AMOUNT
	CONSTRUCTION ACTIVITIES			
200	SITE CLEARANCE	£83,014		
300	FENCING	£268,183		
400	ROAD RESTRAINT SYSTEMS (VEHICLE AND PEDESTRIAN)	£316,405		
500	DRAINAGE AND SERVICE DUCTS	£1,141,223		
600	EARTHWORKS	£3,972,449		
700	PAVEMENTS	£2,565,560		
1100	KERBS FOOTWAYS AND PAVED AREAS	£179,113		
1200	TRAFFIC SIGNS AND ROAD MARKINGS	£207,760		
1300	ROAD LIGHTING COLUMNS AND BRACKETS, CCTV MASTS AND CANTILEVER MASTS	£47,000		
1400	ELECTRICAL WORK FOR ROAD LIGHTING AND TRAFFIC SIGNS	£100,362		
1500	MOTORWAY COMMUNICATIONS	£67,210		
2700	ACCOMMODATION WORKS	£147,365		
3000	LANDSCAPE AND ECOLOGY	£917,750		
	STRUCTURES - (prices based on approximate estimating, therefore OH & P included, Spons p.75)	£2,896,672		
	Temporary Works	£732,576		
		SUB TOTAL	£13,642,641	£13,642,642
	ADD FOR CONTRACTOR'S OH&P (not included in above rates) 12.50%	£1,457,302		
	ADD FOR CONTRACTORS RISK	£750,000		
	ADD FOR CONTRACTORS INFLATION	£1,460,000		
	PRELIMINARIES (INC. TRAFFIC MANAGEMENT)	£2,927,381		
		SUB TOTAL	£6,594,683	£6,594,683
		ESTIMATED CONSTRUCTION COSTS	£20,237,324	£20,237,325
	AECOM - REBASED COSTS FROM Q2 2018 TO Q3 2023			**£23,961,986**
	AECOM - REBASED COSTS FROM Q3 2023 TO Q2 2027			**£27,065,870**

A review of the construction costs against the tenders received by Herefordshire Council in October 2018 was undertaken. There were 3 compliant tenders received by the client of £17,479,187.77, £17,295,299.11 and £33,997.00. If we exclude the higher tender then the remaining 2 are within 15% of the estimated construction cost from the original South Wye Transport Package Financial Case.

The tax situation associated with various construction items has changed since October 2018 which will further inflate costs (red diesel and land fill tax).

AECOM would be able to provide a more accurate cost if the scheme was remeasured and costed by AECOM based on the revised design were it made available.

Design guidance has pushed against the use of culverted watercourses rather than open span structures. This issue could be raised in the preparation of an ES Addendum and could be raised as a potential objection at Public Inquiry. Any change to provide open span structures would have significant cost and programme implications.

A similar project, that is currently under construction, has a cost of **construction cost** £33.8M when scaled proportionally to the SLR. A simple comparison between this and the rebased SLR construction cost of £24M shows a large difference of £9.2M. Therefore it would be advisable to involve a contractor at an early stage to provide input into the changing costs of materials particularly due to recent global events such as the Covid pandemic and difficulties/ increased cost of procuring materials.

9.2 Summary

The review of the commercial aspects of the SLR has been limited to an uplift of existing FBC financial case.

The design fees in table 9 have been partially paid for by HC. An assumed fee of 15% of the original BBLP has been estimated to be required to complete the project on the assumption that there is no further design work except for minor amendments, environmental resurveying and land acquisition as well as taking the project through construction support. It is therefore estimated that £8.4m has been spent with £1.47M fees remaining.

The total risk adjusted cost is therefore reduced from £39,756,156 by £8,401,372 to £31.4M rounded to the nearest £0.1M.

10. What Next / Gap Analysis

The review of the documentation in concluding the next steps has been limited to the available information received from HC. Existing design information was not received in sufficient detail to enable a full review of some items within the scope of this commission. Each section has been summarised below and are available within the detailed sections for each element.

10.1 Planning Application

Planning application ref. P151314/F is considered to have been lawfully implemented and works to construct the SLR can proceed in accordance with the approved plans, however it is understood the Client seeks to make potential amendments to the Scheme. Any changes outside of the red line boundary would require a new planning application. There are several mechanisms available for amending a planning permission. It is recommended that once the nature and scale of any potential amendments have been established a further review is undertaken to advise on the most suitable mechanism for amending the planning permission. This matter should also be discussed with the LPA to ensure their 'buy in' on the preferred approach. Consideration should also be given as to whether the potential amendments trigger any changes to Likely Significant Effects as presented with the EIA. This might impact on the mechanism used to amend a planning permission as well as information required to support an application.

10.2 Environmental Assessment

10.2.1 If the Scheme is Progressed as Currently Consented

If the Scheme were to be progressed as currently consented, and there was no need to apply for external funding, at a minimum there would be a requirement to discharge any outstanding pre-commencement / pre-construction conditions attached to the planning permission.

Conditions 6 and 7 relating to the CEMP were partially discharged by the LPA following the submission of two CEMPs (a Final Phase 1 CEMP and Draft SLR CEMP). The decision notice states that a Final CEMP which should build upon measures in the Draft CEMP should be submitted for discharge before any works outside of Phase 1. The Draft SLR CEMP contains a number of outstanding action points for the Final CEMP to include, for example:

- a description of construction activities (including phasing timing, scheduling and sequencing of works) which will inform the rest of the CEMP;
- production of a Noise method statement; refinement of the requirement for noise barriers once a programme of works and a schedule of plant items is available; an out of hours protocol providing a noise and vibration assessment of out of hours works;
- production of a Pollution Incident Control Plan; and
- production of a Site Waste Management Plan.

In addition, there may be other elements of the Draft CEMP which require updating for the Final CEMP due to the time that has elapsed since its production, reflecting evolving best practice and guidance.

Condition 8 (soil management) has also been partially discharged on the basis of a submission of a Materials Management Plan for Phase 1 of works only. A Materials Management Plan for the remaining construction work would have to be submitted prior to the commencement of any works.

It is also considered that there would be a legal obligation to undertake new ecological surveys even where suitable mitigation was implemented under licence previously for the purpose of obtaining relevant European Protected Species (EPS) licences from Natural England. This is because the ecological baseline for the Scheme may have altered and sufficient time has passed that protected species may have colonised areas not previously inhabited (for example, badgers will frequently build new setts, use them for a short period and then abandon them). In addition, guidance, policy and legislation has been updated over the past decade and requires up to date consideration to ensure mitigation remains appropriate such that the effects remain as those outlined in the ES. For this reason, updated species-specific surveys would also need to be carried out even where a likely absence was established previously. Where updated surveys establish the presence of protected species to be

impacted by the Scheme, licence applications must be prepared and submitted to Natural England, who typically have a determination period of at least 30 working days (and an additional five working days to acknowledge receipt). Ecological works are seasonally constrained and sufficient time would need to be allowed prior to the construction of the Scheme to allow for new surveys to be carried out, licences acquired, and mitigation put in place. Terrestrial and aquatic ecology planners outlining the seasonal constraints for survey and mitigation work are provided at Appendix D. It's anticipated that the necessary surveys could be carried out within one cycle, by March 2025 at the earliest.

It is considered unlikely that a Biodiversity Net Gain Assessment would be required unless there are material changes to the Scheme.

Whilst not a legal requirement, given the length of time that has lapsed, fresh engagement with the public and stakeholders would be beneficial to increase awareness and support for the Scheme.

10.2.2 If Changes to the Scheme are Required

It is considered most likely that the Scheme would be amended via either an application under Section 73 of the Town and Country Planning Act, or by a new full planning application.

Given the length of time that has elapsed since the planning application for the Scheme was first prepared, it is important to note that the public consultation undertaken would no longer be considered reflective of the current relevant stakeholders, and new public consultation should be undertaken regardless of the type of application submitted.

As per Section 10.2.1, in this instance, a suite of updated ecological surveys would be required to fully inform the Scheme, mitigation measures and any licensing requirements.

If there are material changes to the Scheme, it is considered likely that a Biodiversity Net Gain BNG Assessment will be required.

10.2.3 Section 73 Application

Any material alteration to the Scheme that would not alter the planning application boundary would result in the need for an application to be submitted under Section 73 of the Town and Country Planning Act 1990 (As amended). This application would require an in-depth ES Addendum and updates to baseline information as noted in Section 3Table 4, including the undertaking of a Climate Assessment (this not previously having been carried out). This is in order to meet validation requirements and show compliance with current policy and legislation, though the exact scope of work to be undertaken would need to be confirmed with the LPA. This could include updated noise modelling for any additional receptors within the vicinity and a review of archaeological requirements.

Alterations to the Scheme may result in changes to the required material volumes, impacting upon the number of vehicle journeys incorporated into the traffic modelling; this would have wider impacts upon other technical disciplines, such as air quality and noise. Changes to the position / layout of the Scheme design will require review of the assessment for other topics.

A suite of updated ecological surveys and assessments (to include HRA Screening and an ES chapter) would be required to fully inform the Scheme, mitigation measures and any licensing requirements. A BNG Assessment may be required.

It is strongly suggested that, if a Section 73 application were to be progressed, discussions are held with the LPA to identify the exact nature and scope of the application. It is assumed that, with the exception of new assessments, the ES addendum could be prepared assessing the new baseline but using the same methodology as the original application, so that comparisons can be made between the old and new schemes. In addition to this, it may be required that the Scheme is also assessed using the latest guidance and methodology. The need for new assessments, such as climate change and BNG, would be at the discretion of the LPA. The feasibility of progressing a planning application under Section 73 is heavily dependent upon the extent of the changes that are proposed. The ES addendum itself may drive design changes that lead to having to make a full planning application.

10.2.4 Full Planning Application

Changes to the Scheme which would alter the planning application boundary would result in the need for a new, full planning application supported by a new ES and suite of technical assessments in line with current policy and methodologies as outlined in Table 55. A new scoping opinion would need to be sought from the LPA in order to confirm the nature and extent of any planning application.

A suite of updated environmental surveys and assessments would be required to fully inform the Scheme, mitigation measures and any licensing requirements. It is likely that a BNG Assessment would be required.

10.3 Funding and Business Case Development

If external funding is required in order to progress the Scheme, then it is likely that the full business case would need to be revisited as part of a funding application. The most common avenue for funding, the Department for Transport (DfT), follows the five-case model as outlined in The Green Book: Central Government Guidance on Appraisal and Evaluation (HM Treasury, 2022[7]). This requires business cases to:

- set out a robust case for change that demonstrates how the proposal has a strong strategic fit to the organisation's priorities, government ambitions and the area(s) in scope – the 'strategic dimension';
- demonstrate the value for money and the best choice for maximising social welfare through options appraisal – the 'economic dimension';
- illustrate the commercial viability and supply-side capacity for the proposal – the 'commercial dimension'
- demonstrate the proposal is financially affordable – the 'financial dimension'; and
- set out the proposal's deliverability through the effective development of plans, management and resources to oversee the project from outputs to outcomes – the 'management dimension'

The programme of business case development can vary depending upon the nature and scale of the proposal, but is typically formed of three stages:

- Stage 1 - Strategic Outline Case (SOC);
- Stage 2 - Outline Business Case (OBC); and
- Stage 3 - Full Business Case (FBC).

The DfT Transport Analysis Guidance (TAG) (2022[8]) provides more detailed insight as to how to conduct transport studies, however the development of a business case would require the undertaking of an environmental appraisal of the proposed scheme based upon current baseline data and assessment and that is in line with the latest legislation and guidance. The requirements of other funding bodies may differ slightly but would likely follow a similar format.

The need for landscape monetisation to be incorporated into a business case would also need to be considered.

10.4 Environmental Status

Existing environmental survey information is now considered out of date. They are required to be updated to inform the production of the CEMP as required by planning condition, and to inform EPS licence applications to Natural England for works which may impact any identified protected species. These surveys are expected to be able to be completed by March 2025. Additional environmental works may be required, for example if an amendment to the planning permission due to a material change to the design is sought, or at the request of an external funding body such as the DfT.

[7] HM Treasury (2022). *The Green Book: Central Government Guidance on Appraisal and Evaluation*. Available at: The Green Book [Accessed 29-09-2023]
[8] Department for Transport (2022). *Transport analysis guidance*. Available at: TAG [Accessed 05-10-2023]

10.5 Transport modelling and appraisal review

The documentation relating to the strategic transport modelling and appraisal of the Hereford Southern Link Road and associated works has been reviewed with respect to the Department for Transport's Transport Analysis Guidance. At the time the strategic modelling and appraisal was undertaken, February 2019, the forecast and appraisal of the scheme was considered to be in accordance with industry guidance.

As outlined in the recommendations, there are a number of refinements to the strategic transport modelling and appraisal of the SLR which should be addressed to ensure the work is consistent with the latest TAG issued by the DfT. These relate to a variety of topics, including the age of the strategic transport model, uncertainty log, representation of trip rates and travel patterns in the model and the impact of COVID-19, assumptions about the design and opening of the SLR, and ensuring the full impact of the scheme is captured in the latest version of DfT software.

Should this scheme require additional funding from the DfT, it is expected that Herefordshire Council will be asked to address the strategic transport modelling and appraisal which has been undertaken, and update traffic forecasts and economic appraisal to ensure they are in accordance with current DfT TAG.

10.6 Highways

It is understood that a full suite of drawings and specification are in place for the construction of this project. Design checks were undertaken based on the limited information available from the planning application drawings which were used to identify design issues. The standards have not substantially changed regarding the geometry and layout of the highway design. Assuming that the design was compliant with design requirements and relaxation / departure from standards, which should have been identified within the original design, have been reviewed and approved, including those issues identified in this report then the project can proceed with the current design with the following to be considered.

As the received information was very limited (general arrangement drawings from the planning application at 1:1500 scale) It is suggested that a full review of design information is undertaken to ensure that the construction issue pack is complete together with the site and works information pack.

A review of the existing statutory undertakers' equipment should be undertaken to ensure no further utilities are required to be diverted and that the current diversions are still valid. HC should consider whether it's worth completing a digital 3-D clash detection exercise to reduce the likelihood of potential conflict and associated standing time when on site.

A review of the drainage design should be undertaken to ensure that the design complies with current standards. We require confirmation that the drainage network has been designed with a 20% allowance for climate change. The ES Addendum climate assessment is likely to result in some drainage re-design to allow for increased rainfall intensity and run off. This would include the provision of larger balancing facilities to mitigate downstream flooding. The DMRB now requires a sensitivity test to allow for a 40% climate change. This will be picked up in the ES addendum.

A review of the proposed highway cross section and potential departures from standard could be undertaken to assess whether sufficient width can be obtained to enable the provision of improved cycleway/footway facilities.

A full review of the lighting may be required to be undertaken to ensure that it meets current illumination standards and practices.

10.7 Structures

HC should confirm the status of the AiPs in accordance with the DMRB standard BD 2/12 Technical Approval of Highway Structures. As the validity of any AiPs, which may have been produced at the time, would have expired, they will need to be updated and to reflect and incorporate changes to the latest suite of DMRB standards.

Design guidance has pushed against the use of culverted watercourses rather than open span structures. This issue could be raised in the preparation of an ES Addendum and could be raised as a potential objection at Public Inquiry. Any change to provide open span structures would have significant cost and programme implications.

HC should consider future proofing the proposed structures to provide sufficient width for a future active travel scheme. This item would require discussion with the planning authority to ensure that any such amendments can be achieved without a full planning application.

Discussions with third parties, Network Rail and Environment Agency, are required to establish if their requirements had changed whilst also planning the bridge construction to ensure adequate possession dates are available within the construction period.

Any design drawings and specification need to be checked, to ensure compliance with the latest design standards, and updated accordingly.

10.8 Active travel

It is recommended that a full review of the active travel provisions are undertaken in the future to understand what alternative measures could be introduced along adjacent routes and residential areas to improve connectivity. This would complement works being undertaken on other active travel reviews within Hereford such as the Town planning review and the Hereford Masterplan.

10.9 Commercial

The commercial review of the design is based on the South Wye Transport Package Financial Case which utilised the Outline Business Case / Tender documents received from HC. This review has been limited to an uplift to the original costs in the FBC to bring them up to a construction start date of 2027.

These would include minimal additional design fees at this stage as it is not clear from the information that was made available whether any design changes are required to take the design to construction issue. The design fees in table 9 have been partially paid for by HC. An assumed fee of 15% of the original BBLP has been estimated to be required to complete the project on the assumption that there is no further design work except for minor amendments, environmental resurveying and land acquisition as well as taking the project through construction support. It is therefore estimated that £8.4m has been spent with £1.47M fees remaining. Should further design work or reapplication of the planning application then this fee would need to be increased as appropriate

The total risk adjusted cost is therefore reduced from £39,756,156 by £8,401,372 to £31.4M rounded to the nearest £0.1M based on the above assumptions.

The land costs are assumed incomplete unless otherwise confirmed by HC and will require to be reviewed following confirmation of CPO/SRO Orders and have therefore been retained as the original value.

AECOM would be able to provide a more accurate cost if the scheme was remeasured and costed by AECOM based on the revised design were it made available.

10.10 Timescales

Environmental surveys need to be redone to bring the survey information up to date in order to inform the production of the CEMP as required by planning condition, and to inform EPS licence applications to Natural England for works which may impact any identified protected species. Ecological works are seasonally constrained and sufficient time would need to be allowed prior to the construction of the Scheme to allow for new surveys to be carried out, licences acquired, and mitigation put in place. Terrestrial and aquatic ecology planners outlining the seasonal constraints for survey and mitigation work are provided at Appendix D. It’s anticipated that the necessary surveys could be carried out within one cycle, by March 2025 at the earliest. Natural England typically have a determination period of at least 30 working days for a licence application (and an additional five working days to acknowledge receipt).

Should any material changes to the Scheme be proposed which require the submission of a Section 73 application or a new planning application, additional time would be required for further environmental assessment works as described in Section 10.2. There may also be additional requirements for environmental assessment from the funding bodies, for example the DfT, which will entail additional time.

If the same Technical Approval Authority is used as for the original structures design, and they are comfortable with the original designs and design standards used at that time, obtaining approval for the AIPs will be straight forward and would be completed in weeks, However, the worst-case scenario would involve re-design to new standards that would require revised AIP, technical approval, design check and certification. This could take up to nine months to finalise. Assuming that any redesign work required maintains the structural form and similar aesthetic appearance of the original design, this will not impact planning.

The drainage design is likely to require updating due to allowances required for climate change. The time required to make such changes will be dependent on the availability of design calculations for the existing network. It would be reasonable to allow a duration of three months to complete this task. The impact of such changes will require discussion with the planning authority, If they cannot be implemented under a Section 73 application, this could result in the submission of a full planning application. The revised design, including the provision of additional/increased attenuation features may result in departures from standard. The time for preparation and approval of these departures would need to be allowed for in the timescale of this task.

The original design requires more detailed analysis to verify compliance with the CDM regulations. Various design standards, design guidance and best practice has changed since the original design was approved. Design improvements are in part driven by CDM. Off-site fabrication has become much more commonly used to reduce site-based operations, often completed at height. For example, bridge edge beams are often now installed with built in parapets. If any such items are identified, it will be difficult to ignore them due to the CDM implications, and may lead to design changes and associated programme impact.

Reworks for traffic modelling would need to be undertaken to ensure that the FBC is in place. Note that changes to the traffic modelling may impact the BCR and undermine the planning application.

The CPO process should be run alongside discussions regarding purchase of land to ensure that the land can be acquired under the legal route should the need arise. It is estimated to require a 24 month duration to undertake the full CPO process which would need to be started in Q3 2024 to enable a potential start on site by Q3 2026. Note that if reasonable objections are raised this could lead to a public inquiry and judicial review, with further design changes and associated delays.

If the project went to Public Inquiry there are some new considerations that an objector could raise to get the scheme rejected. Some of these would be covered in the ES Addendum such as carbon management. A full review of all scheme documentation would be required to ensure that all necessary documentation has been prepared and appropriately considered. Any newly specified documentation would need to be prepared to enable informed responses to potential objections e.g. WCHAR.

If the scheme went to Public Inquiry HC should try to engage those individuals involved in the design process as expert witnesses. Considerable effort would be required by others to take on these roles, where they only have limited detail of the scheme.

We need to understand the views of the planning authority to ascertain whether the orders process could run in parallel with the outstanding design items.

If a full planning application is required the opportunity would arise to include active travel measures within the footprint of the scheme.

An indicative programme is included in Appendix E to plan out the activities through to start of construction. The programme assumes windows to undertake the ecology surveys as described above. It should be noted that if this window is missed then the programme will be required to extend to the next calendar year. The programme assumes the 24 month CPO process as described above although it is expected that the land purchase will be under a negotiated process with the formal CPO process running alongside. This could reduce the timescale for this activity considerably to a possible 12 month duration which would result in a start of construction date of Q2/Q3 2026.

A construction period of approximately 18 months is expected to be achievable, it would be advisable to engage with a contractor at the earliest opportunity to ensure that the construction can be phased to achieve the 18 month timescale.

The programme is caveated by the following:

- Indicative programmes based on the limited information available to AECOM.
- CPO process to be completed in conjunction with the negotiated land acquisition in case negotiated route is not accepted
- No time has been allowed to complete Planning Applications for Haul roads / topsoil storage areas
- Any design changes undertaken by others since the planning approval are assumed to be Non material changes
- No further Ground Investigation assumed required, review of existing GI information only
- FBC to be limited to minor update of current report
- Planning Application assumed acceptable and not subject to reapplication (assumes amendments can be completed under S73 – 16 week determination may be challenging)
- No allowance has been made for any further flood modelling. EA approvals are currently time consuming due to lack of EA resource for approval.
- Programme makes no allowance for any archaeological works. If archaeological trenching works are required by County Archaeologist and make findings, strip map and record works could be required with significant additional duration and cost.
- No allowance has been made for the design of service protection slabs. The appraisal and approval of any such designs can be drawn out.
- The environmental surveys make no allowance for the relocation of any wildlife identified (e.g. badgers/ newts).
- The environmental surveys make no allowance for the removal of any invasive species (Japanese knotweed / Himalayan balsam).

10.11 Risks

Natural England has the discretion to reject an application for an EPS licence if the supporting evidence is poor. Should updated environmental surveys not be obtained, there is a risk that Natural England could refuse the relevant licence applications based on the age of the existing survey data. Surveys would then need to be conducted in order to obtain the appropriate licences, and this may have impacts on the timescales of the project. Conducting works which may impact on EPS (such as damaging or destroying a breeding site or resting place of a protected species) without the appropriate licence is a breach of the Conservation of Habitats and Species Regulations 2017 (as amended in 2019).

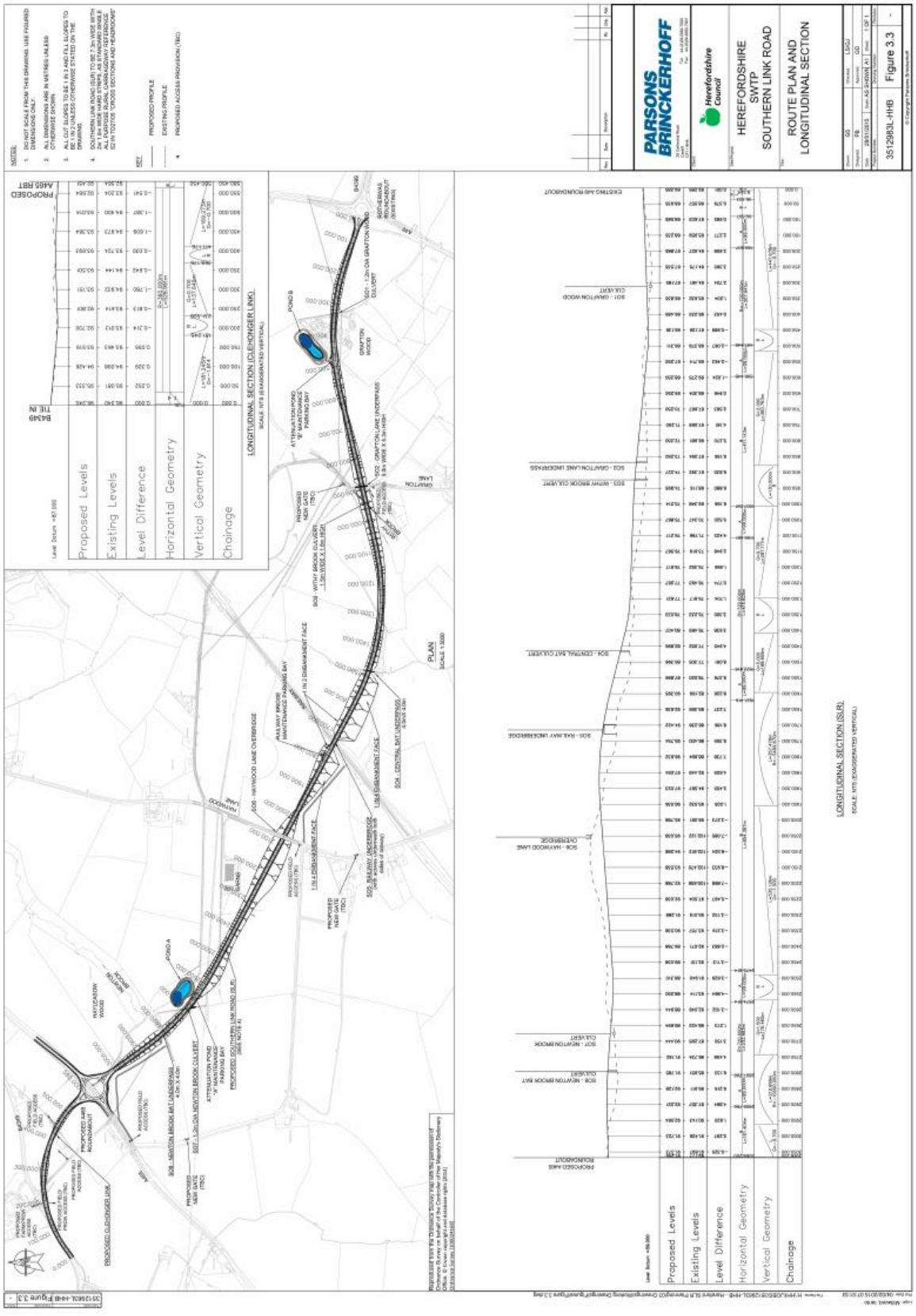
Early engagement with the LPA and the funding bodies is required to understand their requirements with respect to environmental work in the case that amendments to the planning permission are sought, or a business case is required to be prepared.

10.12 Summary

This report sets out the validity of the planning application and reviews reference P151314/F (‘the Southern Link Road (SLR)’ as well as reviewing existing design information and presents a ‘what next’ for all elements of the scheme, identifying risks to the project.
The report presents the client with sufficient information to make informed decisions about each element of the scheme and determine the way forward.

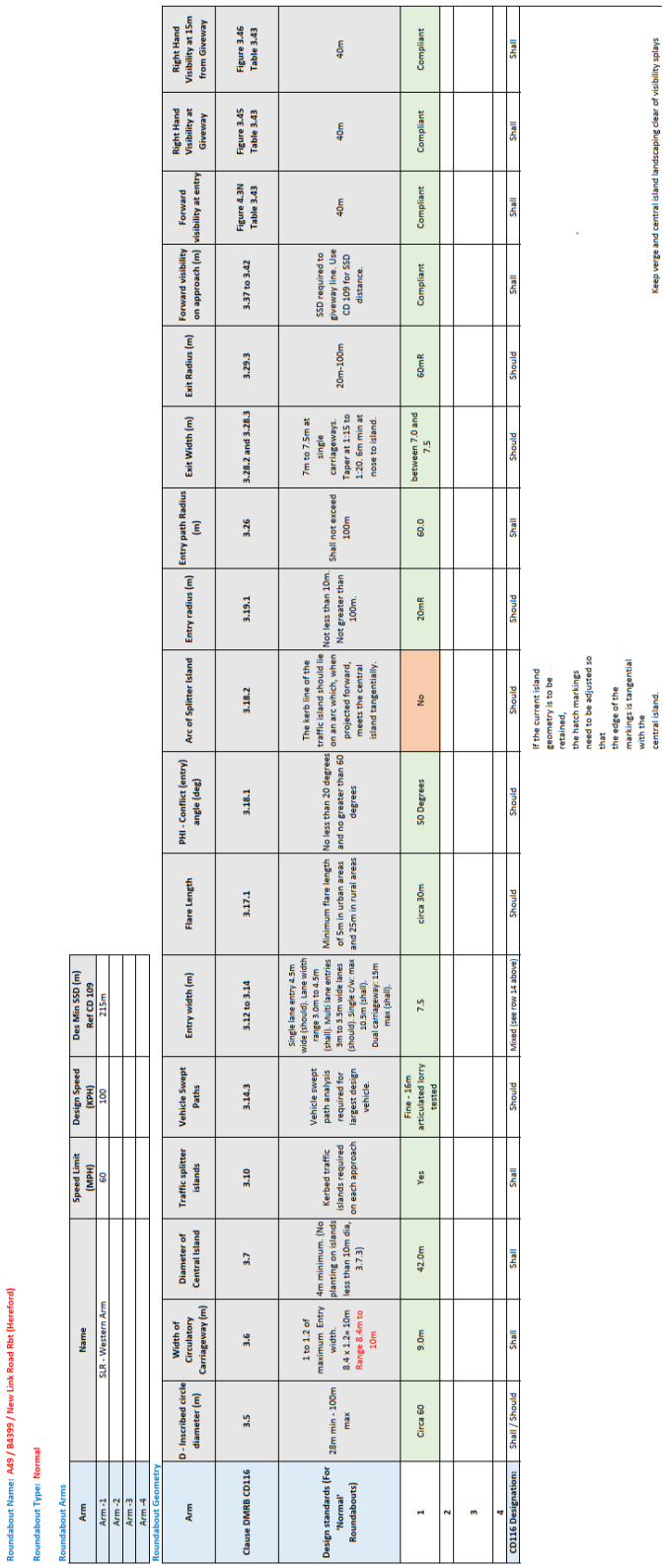
Appendix A

Scheme proposals Planning Application figure 3.3



Appendix B

A49 / B4399 / Hereford SLR Roundabout Review Document



Roundabout Name: A49 / B4399 / New Link Road Rbt (Hereford)

Roundabout Type: Normal

Roundabout Arms

Arm	Name	Speed Limit (MPH)	Design Speed (KPH)	Des Min SSD (m) Ref CD 109
Arm -1	SLR - Western Arm	60	100	215m
Arm -2				
Arm -3				
Arm -4				

Roundabout Geometry

Arm	D - Inscribed circle diameter (m)	Width of Circulatory Carriageway (m)	Diameter of Central Island	Traffic splitter islands	Vehicle Swept Paths	Entry width (m)	Flare Length	PHI - Conflict (entry) angle (deg)	Arc of Splitter Island	Entry radius (m)	Entry path Radius (m)	Exit Width (m)	Exit Radius (m)	Forward visibility on approach (m)	Forward visibility at entry	Right Hand Visibility at Giveway	Right Hand Visibility at 15m from Giveway
Clause DMRB CD116	3.5	3.6	3.7	3.10	3.14.3	3.12 to 3.14	3.17.1	3.18.1	3.18.2	3.19.1	3.26	3.28.2 and 3.28.3	3.29.3	3.37 to 3.42	Figure 4.3N Table 3.43	Figure 3.45 Table 3.43	Figure 3.46 Table 3.43
Design standards (For 'Normal' Roundabouts)	28m min - 100m max	1 to 1.2 of maximum Entry width. 8.4 x 1.2= 10m Range 8.4m to 10m	4m minimum. (No planting on islands less than 10m dia. 3.7.3)	Kerbed traffic islands required on each approach	Vehicle swept path analysis required for largest design vehicle.	Single lane entry 4.5m wide (should). Lane width range 3.0m to 4.5m (shall). Multi lane entries 3m to 3.5m wide lanes (should). Single c/w: max 10.5m (shall). Dual carriageway 13m max (shall).	Minimum flare length of 5m in urban areas and 25m in rural areas	No less than 20 degrees and no greater than 60 degrees	The kerb line of the traffic island should be circular and should not be projected form, and meets the central island tangentially.	Not less than 10m. Not greater than 100m.	Shall not exceed 100m	7m to 7.5m at single carriageways. Taper at 1:15 to 1:20. 6m min at nose to island.	20m-100m	SSD required to given vehicle. Use CD 109 for SSD distance.	40m	40m	40m
1	Circa 60	9.0m	42.0m	Yes	Fine - 16m articulated lorry tested	7.5	circa 30m	50 Degrees	No	20mR	60.0	between 7.0 and 7.5	60mR	Compliant	Compliant	Compliant	Compliant
2																	
3																	
4																	
CD116 Designations:	Shall / Should	Shall	Shall	Shall	Should	Mixed (see row 14 above)	Should	Should	Should	Should	Shall	Should	Should	Shall	Shall	Shall	Shall

If the current island geometry is to be retained, the hatch markings need to be adjusted so that the edge of the markings is tangential with the central island.

Keep verge and central island landscaping clear of visibility splays

= OK, within standard CD116

= Non compliant

= Non compliant, but not safety issue. Or information / design not yet available.

Observations

A465 / B4349 / Hereford SLR Roundabout Review Document

Roundabout Name: A465 / B4349 / New Link Road Rbt (Hereford)

Roundabout Type: Normal

Roundabout Arms

Arm	Name	Speed Limit (MPH)	Design Speed (KPH)	Des Min SSD (m) Ref CD 109
Arm -1	SLR - Eastern Arm	60	100	215m
Arm -2	A465 - Southern Arm	60	100	215m
Arm -3	Clehonger Link (B4349) - Western Arm	40	70	120m
Arm -4	A465 - Northern Arm	60	100	215m

Roundabout Geometry

Arm	D - Inscribed circle diameter (m)	Width of Circulatory Carriageway (m)	Diameter of Central Island	Traffic splitter islands	Vehicle Swept Paths	Entry width (m)	Flare Length	PHI - Conflict (entry) angle (deg)	Arc of Splitter Island	Entry radius (m)	Entry path Radius (m)	Exit Width (m)	Exit Radius (m)	Forward visibility on approach (m)	Forward visibility at entry	Right Hand Visibility at Giveway	Right Hand Visibility at 15m from Giveway
Clause DMRB CD116	3.5	3.6	3.7	3.10	3.14.3	3.12 to 3.14	3.17.1	3.18.1	3.18.2	3.19.1	3.26	3.28.2 and 3.28.3	3.29.3	3.37 to 3.42	Figure 4.3N Table 3.43	Figure 3.45 Table 3.43	Figure 3.46 Table 3.43
Design standards (For 'Normal' Roundabouts)	28m min - 100m max	1 to 1.2 of maximum Entry width. 8.4 x 1.2= 10m Range 8.4m to 10m	4m minimum. (No planting on islands less than 10m dia, 3.7.3)	Kerbed traffic islands required on each approach	Vehicle swept path analysis required for largest design vehicle.	Single lane entry 4.5m wide (should). Lane width range 3.0m to 4.5m (shall). Multi lane entries 3m to 3.5m wide lanes (should). Single c/wy. max 10.5m (shall). Dual carriageway: 15m max (shall).	Minimum flare length of 5m in urban areas and 25m in rural areas	No less than 20 degrees and no greater than 60 degrees	The kerb line of the traffic island should lie on an arc which, when projected forward, meets the central island tangentially.	Not less than 10m. Not greater than 100m.	Shall not exceed 100m	7m to 7.5m at single carriageways. Taper at 1:15 to 1:20. 6m min at nose to island.	20m-100m	SSD required to giveway line. Use CD 109 for SSD distance.	50m	50m	50m
1	Circa 78	8.6	62.0	Yes	Fine - 16m articulated lorry tested	7.2	37.0	27 Degrees	Yes	30.0	60.0	Yes	70.0	Compliant	Compliant	Compliant	Compliant
2	Circa 78	8.6	62.0	Yes	Fine - 16m articulated lorry tested	7.2	47.0	31 Degrees	Yes	30.0	60.0	Yes	81.0	Compliant	Compliant	Compliant	Compliant
3	Circa 78	8.6	62.0	Yes	Fine - 16m articulated lorry tested	7.2	51.0	36 Degrees	No	30.0	63.0	Yes	50.0	Compliant	Compliant	Compliant	Compliant
4	Circa 78	8.6	62.0	Yes	Fine - 16m articulated lorry tested	7.2	28.0	32 Degrees	Yes	30.0	50.0	Yes	61.0	Compliant	Compliant	Compliant	Compliant
CD116 Designation:	Shall / Should	Shall	Shall	Shall	Should	Mixed (see row 14 above)	Should	Should	Should	Should	Shall	Should	Should	Shall	Shall	Shall	Shall

Since the kerblines have been created from the pdf, they do not fully represent the 'true' kerblines, however it seems three of the four islands are tangential with the central island.

The approach visibility on the eastern arm needs to be confirmed once a detailed drawing of the highway boundary fencing has been received.

Chevron Signs have not been added in the design yet at this roundabout. Need to ensure that signs don't intrude on the visibility splays at the roundabout

= OK, within standard CD116

= Non compliant

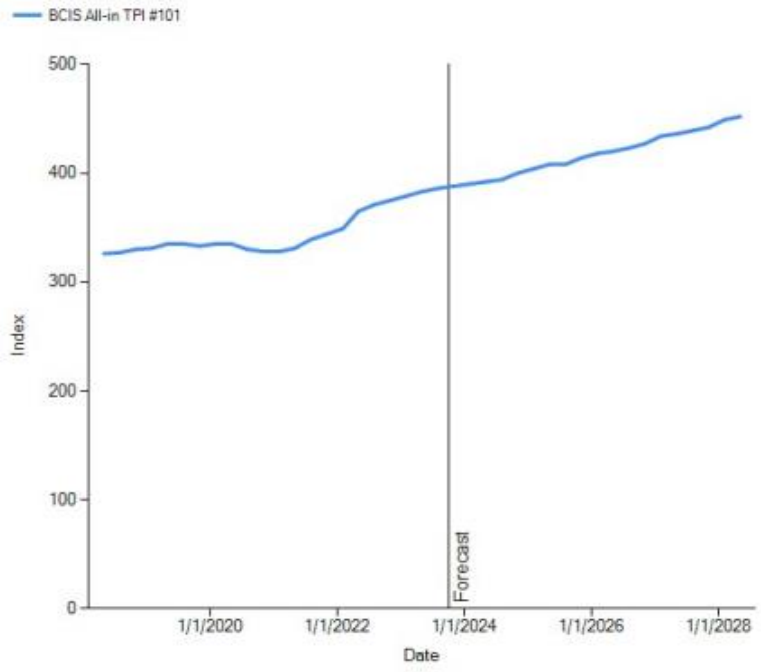
= Non compliant, but not safety issue. Or information / design not yet available.

Appendix C

Indexes used for the uplift from BCIS

			Percentage change		
Date	Index	Equivalent sample	On year	On quarter	On month
2Q 2018	326	94	6.2%	0.0%	
3Q 2018	327	90	6.9%	0.3%	
4Q 2018	330	85	4.1%	0.9%	
1Q 2019	331	74	1.5%	0.3%	
2Q 2019	335	66	2.8%	1.2%	
3Q 2019	335	62	2.4%	0.0%	
4Q 2019	333	56	0.9%	-0.6%	
1Q 2020	335	Provisional	1.2%	0.6%	
2Q 2020	335	Provisional	0.0%	0.0%	
3Q 2020	330	Provisional	-1.5%	-1.5%	
4Q 2020	328	Provisional	-1.5%	-0.6%	
1Q 2021	328	Provisional	-2.1%	0.0%	
2Q 2021	331	Provisional	-1.2%	0.9%	
3Q 2021	339	Provisional	2.7%	2.4%	
4Q 2021	344	Provisional	4.9%	1.5%	
1Q 2022	349	Provisional	6.4%	1.5%	
2Q 2022	365	Provisional	10.3%	4.6%	
3Q 2022	371	Provisional	9.4%	1.6%	
4Q 2022	375	Provisional	9.0%	1.1%	
1Q 2023	379	Provisional	8.6%	1.1%	
2Q 2023	383	Provisional	4.9%	1.1%	
3Q 2023	386	Provisional	4.0%	0.8%	
4Q 2023	388	Forecast	3.5%	0.5%	
1Q 2024	390	Forecast	2.9%	0.5%	
2Q 2024	392	Forecast	2.3%	0.5%	
3Q 2024	394	Forecast	2.1%	0.5%	
4Q 2024	400	Forecast	3.1%	1.5%	
1Q 2025	404	Forecast	3.6%	1.0%	
2Q 2025	408	Forecast	4.1%	1.0%	
3Q 2025	408	Forecast	3.6%	0.0%	
4Q 2025	414	Forecast	3.5%	1.5%	
1Q 2026	418	Forecast	3.5%	1.0%	
2Q 2026	420	Forecast	2.9%	0.5%	
3Q 2026	423	Forecast	3.7%	0.7%	

Date	Index	Equivalent sample	On year	On quarter	On month
4Q 2026	427	Forecast	3.1%	0.9%	
1Q 2027	434	Forecast	3.8%	1.6%	
2Q 2027	436	Forecast	3.8%	0.5%	
3Q 2027	439	Forecast	3.8%	0.7%	
4Q 2027	442	Forecast	3.5%	0.7%	
1Q 2028	449	Forecast	3.5%	1.6%	
2Q 2028	452	Forecast	3.7%	0.7%	



Percentage change over time

Appendix D

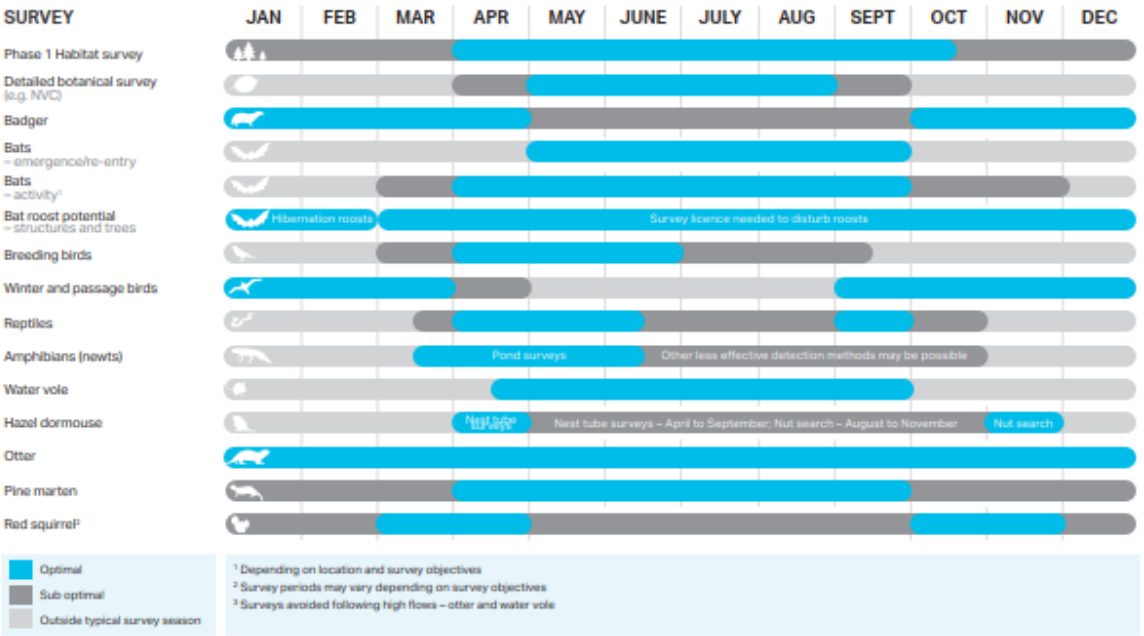
Terrestrial and aquatic ecology planners

AECOM

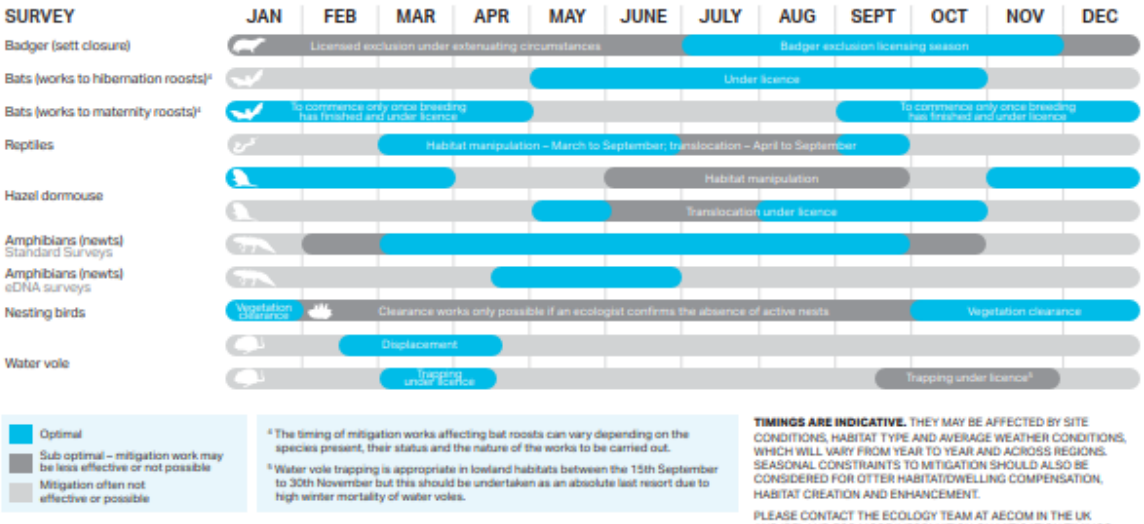
TERRESTRIAL ECOLOGY PLANNER

Programming and delivering ecological surveys and mitigation at the appropriate time of year is critical to securing reliable information to inform and enable planning, design, operations and maintenance. This planner provides a general guide to timing for surveys and mitigation for a range of habitats and species in the UK and Ireland. For further information and advice contact our team of professional ecologists at AECOM.

SURVEY TIMING



MITIGATION TIMING



TIMINGS ARE INDICATIVE. THEY MAY BE AFFECTED BY SITE CONDITIONS, HABITAT TYPE AND AVERAGE WEATHER CONDITIONS, WHICH WILL VARY FROM YEAR TO YEAR AND ACROSS REGIONS. SEASONAL CONSTRAINTS TO MITIGATION SHOULD ALSO BE CONSIDERED FOR OTTER HABITAT/DWELLING COMPENSATION, HABITAT CREATION AND ENHANCEMENT.

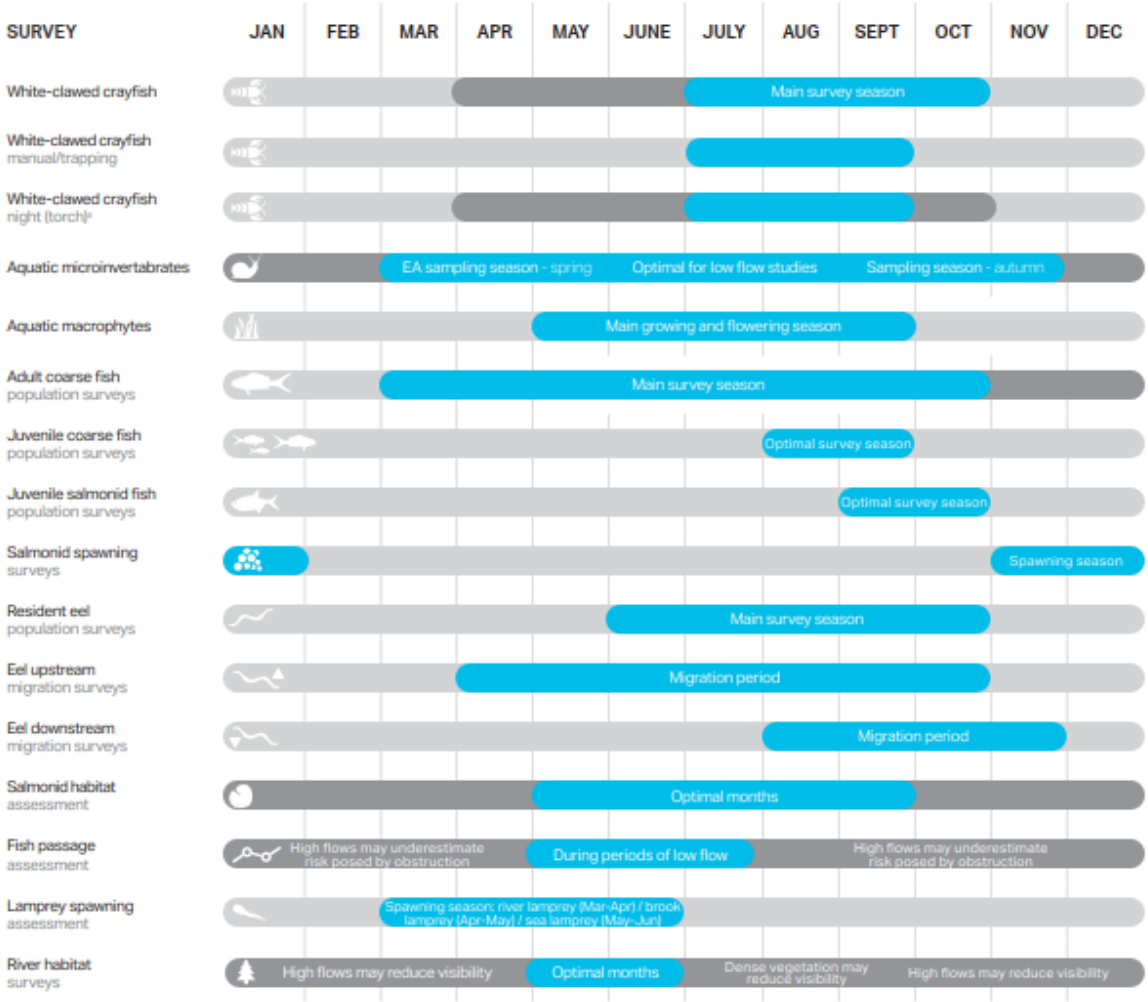
PLEASE CONTACT THE ECOLOGY TEAM AT AECOM IN THE UK AND IRELAND FOR MORE INFORMATION ON MITIGATION TIMINGS.

AQUATIC ECOLOGY PLANNER

AECOM

Programming and delivering ecological surveys at the appropriate time of year is critical to securing reliable information to inform and enable planning, design, operations and maintenance. This planner provides a general guide to timing surveys for a range of habitats and species in the UK and Ireland. For further information and advice contact our team of professional ecologists at AECOM.

SURVEY TIMING



Optimal survey period
Sub optimal survey period
Surveys unreliable

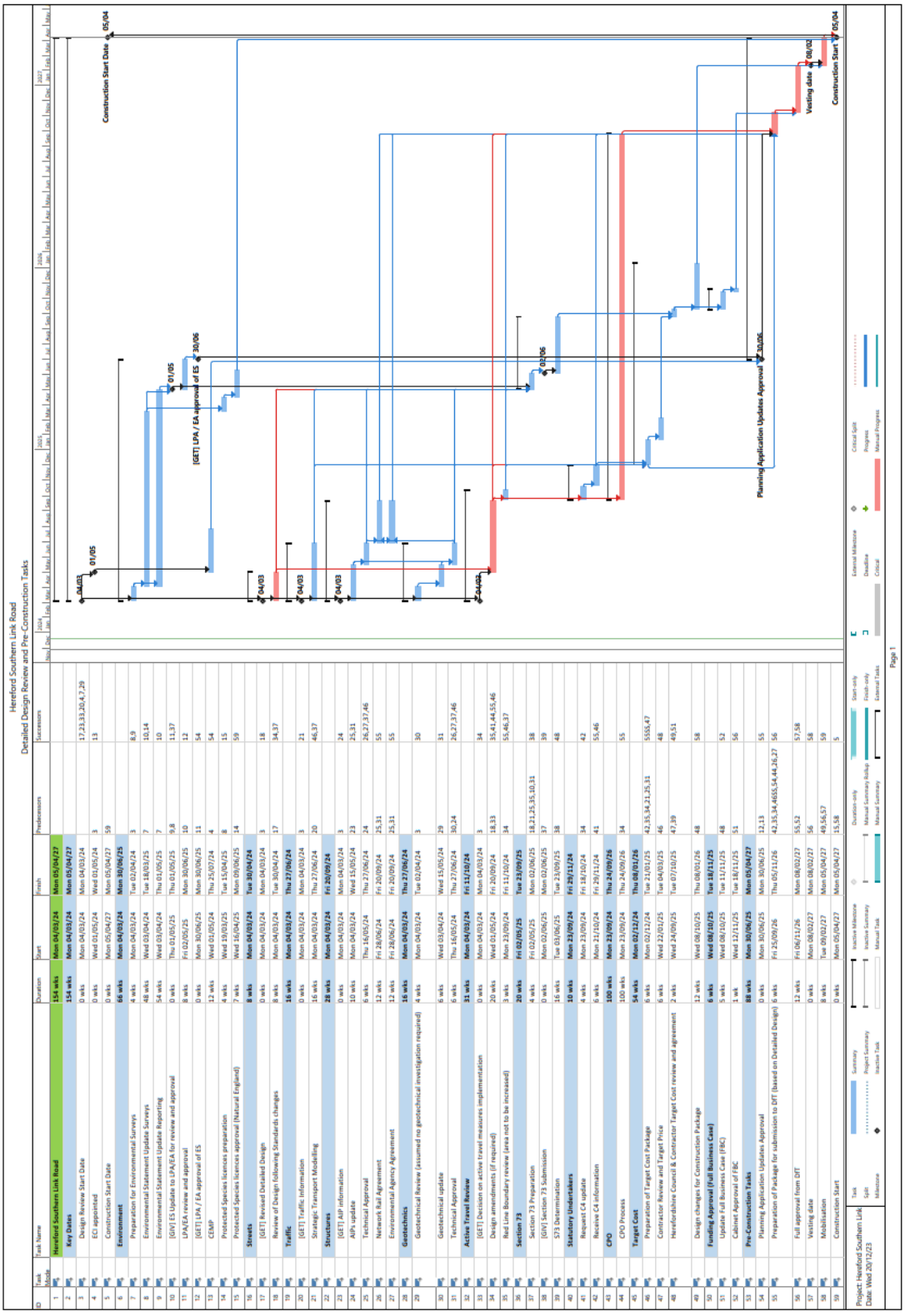
TIMINGS ARE INDICATIVE. THEY MAY BE AFFECTED BY SITE CONDITIONS, HABITAT TYPE AND AVERAGE WEATHER CONDITIONS, WHICH WILL VARY FROM YEAR TO YEAR AND ACROSS REGIONS. SEASONAL CONSTRAINTS TO MITIGATION SHOULD ALSO BE CONSIDERED FOR OTTER HABITAT/DWELLING COMPENSATION, HABITAT CREATION AND ENHANCEMENT.

PLEASE CONTACT THE ECOLOGY TEAM AT AECOM IN THE UK AND IRELAND FOR MORE INFORMATION ON MITIGATION TIMINGS.

[a] Mitigation proposals to manage white-clawed crayfish on site should only take place between the 1st July and the 30th September inclusive under a Natural England licence.

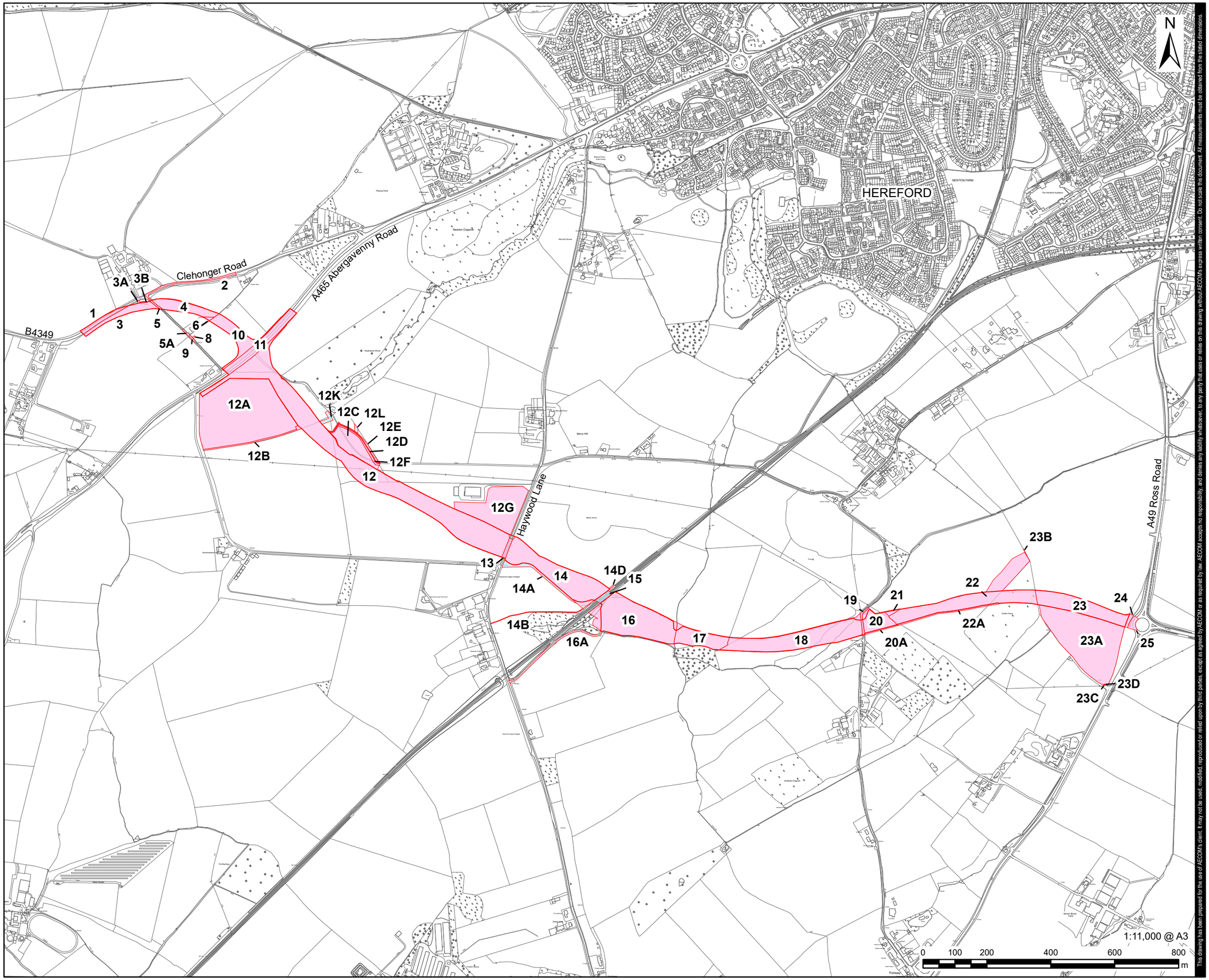
Appendix E

Indicative programme



Appendix P – Compulsory Purchase Order Plans

Drawn: AB Checked: DH Approved: AS



Filename: \\na.aecomnet.com\Ifs\EMEA\Basingstoke-UKBAS1\Legacy\UKBAS1PFILW00114400 - Management Services\5004 - Information Systems\60746644_HerefordshireCPO\002_Maps\HER_WesternBypass.aprx

500

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Herefordshire Council

PROJECT

Hereford Western Bypass Phase One

CLIENT

The County of Herefordshire District Council

CONSULTANT

AECOM Limited
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Bristol
BS1 6EW
www.aecom.com

LEGEND

- Red Line Boundary
- Land acquired for Title
- Land required for Rights

NOTES

1: The land ownership and land parcel boundaries shown on this drawing were copied from the Compulsory Purchase Order 2018 Site Plans 1 & 2 prepared by others. No liability can be accepted for the accuracy of these drawings and the land parcel boundaries shown.
2: The land ownership and land parcels shown will require updating based on current land ownership and land registry information.
3: Mapping sources: © Crown copyright and database rights (2025) Ordnance Survey (AC0000850532)

ISSUE PURPOSE	SUITABILITY
FOR INFORMATION	S2

ISSUE DATE

19/01/2026

PROJECT NUMBER

60746644

FIGURE TITLE

A4194 Compulsory Purchase Order Parcels - Overview Map

FIGURE NUMBER	REV
HGC-ACM-LLO-PH1_ZZ-DR-LL-0000001	P04

Appendix Q – Public Consultation Report

PARSONS BRINCKERHOFF

November 2014

SOUTH WYE TRANSPORT PACKAGE
REPORT ON CONSULTATION

Herefordshire Council

3512983B-HHR

Final

South Wye Transport Package
Report on Consultation

3512983B-HHR

Prepared for
Herefordshire Council
Plough Lane
Hereford
HR4 0WZ

Prepared by
Parsons Brinckerhoff
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Cardiff
CF11 9HA

www.pbworld.com

Report Title	**:**	**South Wye Transport Package Report on Consultation**
PIMS Number	**:**	
Report Status	**:**	**Final**
Job No	**:**	**3512983A-HHR**
Date	**:**	**October 2014**

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Approved by	Amy Hallam	**Checked by** *(quality assurance)*	Gary Dymond

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Appendices

Appendix A – Public Consultation Brochure
Appendix B – Brochure Deposit Locations
Appendix C – Public Consultation Questionnaire
Appendix D – Public Exhibition Panels
Appendix E – Layout of Exhibition Panels
Appendix F – Question 7 Full Breakdown

1 INTRODUCTION

1.1 Background

1.1.1 Parsons Brinckerhoff has been commissioned by Herefordshire Council to develop transport improvements for the South Wye Transport Package (SWTP) to overcome the transport problems within the South Wye area of Hereford. This work builds upon the initial work undertaken by Amey regarding highway improvements to the Belmont Area and option development for a Southern Link Road (SLR), which would link the A49 and A465.

1.1.2 Part of this study was to undertake a Public Consultation to obtain public opinion on the options developed for the SWTP. These options included improvements to encourage sustainable travel and also presented four route options for the SLR. These options were:

- SC2: a route located at the southern end of the previously identified SLR Route Corridor. The road crosses over the railway line and underneath Haywood Lane;
- SC2A: a variation on SC2 whereby the road crosses underneath the railway line;
- SC5: a route located further north of SC2/SC2A within the SLR Route Corridor and south of Merryhill Lane. The road crosses underneath the railway line and Haywood Lane.
- SC7: roughly similar to SC5 but more twisted in nature thereby avoiding a number of existing environmental constraints.

1.1.3 The consultation period was advertised for the six-week period from the 1 July 2014 to 8 August 2014. Public Consultation Exhibitions (PCEs) were held in Belmont between the 1 and 3 July 2014 at the Three Counties Hotel, Hereford. Exhibitions were also held on the 15 July 2014 at Belmont Library and on the 18 July 2014 at Hereford City Library.

2 GENERAL

2.1 Notices and Distribution of the Brochure and Questionnaires

2.1.1 Press releases regarding the exhibitions were issued ahead of the exhibitions on the 17 June 2014, and again afterwards on the 4 July.

2.1.2 A website describing the South Wye Transport Package and publicising the public exhibitions was accessible from the 1 July 2014 at the following web address https://www.herefordshire.gov.uk/planning-and-building-control/planning-policy/local-transport-plan-2013-2015/south-wye-transportation-package.

2.1.3 During the consultation, the public consultation brochure (see Appendix A) and advertising posters were left in local shops, offices, cafes and businesses in the study area from 1 July 2014. The locations where the brochures were displayed are illustrated in Appendix B.

2.1.4 Brochures were distributed to the public during the course of the consultation. To accompany these, questionnaires (Appendix C) were enclosed.

2.1.5 The questionnaire was also made available online via the following web address: https://www.surveymonkey.com/s/75YCD7G. A link was also made available via the Council's website.

2.2 Social Media

2.2.1 Social Media was used to publicise the consultation and gather feedback from the community. The brochure and display panels included the Facebook address **www.facebook.com/HfdsCouncil** and Twitter handle **@HfdsCouncil** where respondents could provide their opinions.

2.3 Consultation Arrangements

2.3.1 The public exhibition was held at the Three Counties Hotel between the 1 and 3 July 2014.

2.3.2 An exhibition was also held at Belmont Library on the 15 July 2014 and Hereford City Library on the 18 July 2014.

2.3.3 The opening times of the exhibition were as follows:

Three Counties Hotel

- 1 July 2014 - 12:00 – 20:00
- 2 July 2014 - 12:00 – 20:00
- 3 July 2014 - 12:00 – 20:00

Belmont Library

- 15 July 2014 - 14:00 – 17:00

Hereford City Library

- 15 July 2014 - 15:00 – 19:00

2.4 Preview Evening

2.4.1 Herefordshire Council invited Council Members, other officials, and members of the public who had previously been invited to stakeholder events, to the evening preview on the 30 June 2014. The invitations were sent by letter on the 17 August 2014.

2.4.2 There were a total of 45 attendees to the preview, excluding staff.

2.5 Public Exhibition

2.5.1 The exhibition comprised 15 display panels that showed the development of the options and their resultant appraisal. Photos of the exhibition are shown on the following page.

2.5.2 The early panels in the exhibition illustrated the problems within the South Wye area, and summarised Council policy regarding economic development within Hereford.

2.5.3 Panels also described the development of the different elements to provide a package that best dealt with the existing problems and future opportunities.

2.5.4 The Southern Link Road proposals were presented on panels overlaid on aerial photographs. Traffic flows for the Opening Year (2017) were also shown on these panels.

2.5.5 In order to assist visitors in gaining a visual appreciation of the options, photomontages of the different options were included on some of the panels.

2.5.6 Copies of the panels were also available on the layout tables at the Three Counties Hotel.



Picture 1: Public Consultation Exhibition, Three Counties Hotel



Picture 2: Public Consultation Exhibition, Three Counties Hotel

2.5.7 Due to the size of the two libraries, it was not possible to display full size panels. In this case, smaller versions of the panels were displayed.

2.5.8 The exhibition panels can be found in Appendix D. The layout of the panels at the exhibition is provided in Appendix E.

2.6 Brochure and Questionnaire

2.6.1 Additional brochures and questionnaires were on display and attendees were encouraged to take additional copies.

2.7 Attendance at the Exhibition

2.7.1 An attendance register was maintained at the Three Counties Hotel exhibition, with the number of attendees as listed below:

- 45 people attended the preview evening;
- 45 attended on Tuesday;
- 44 attended on Wednesday; and
- 65 attended on Thursday.

2.7.2 Due to their public nature, an attendance register was not used at the two libraries.

2.7.3 The latest census information for the South Wye area showed that it is a community of approximately 23,000 people. This suggests that nearly 1% of the local population attended the exhibition at the Three Counties Hotel.

2.8 Requests for Information

2.8.1 A 'tick' list of items which would be made available post-consultation was used at each of the exhibitions. The list included:

- Exhibition panels;
- Additional questionnaires;
- Brochure; and
- Other.

2.8.2 The public were asked to leave contact details and make their requests for these items on the list, with the assistance of members of staff.

2.8.3 During the exhibition, there were 26 requests for information. These requests were dealt with by the close of the consultation on 8 August 2014.

2.8.4 Formal representations were also made at the exhibition, which include queries, comments and suggestions, as well as more specific requests for information.

2.8.5 There were also 24 written letters of representation received following the public exhibition during the consultation period, some of which required direct responses.

3 COMMENTS RECEIVED

3.1 Questionnaires Returned

3.1.1 It was agreed with Herefordshire Council to accept returns of items to the Freepost address up to the 15 August 2014 to allow for postal delays. The final collection of items from the Freepost address and the online survey was made on the 18 August 2014.

3.1.2 By the 18 August 2014, **a total of 231 questionnaires** and **24 letters and submissions** had been received in response to the consultation. 86 of the questionnaire responses were received from the online survey.

3.1.3 221 sets of data from the postcodes provided in the questionnaire responses were plotted using GIS. This showed that 130 of the responses came from the South Wye area, 50 of which were within the 2011 Census Ward for Belmont, and 22 from St Martins and Hinton. 91 responses came from outside the South Wye area.

3.2 Petitions

3.2.1 One petition was received during the consultation period. This was a 73-name petition in support of Route Options SC2 and SC2A for the Southern Link Road.

4 ANALYSIS OF QUESTIONNAIRES AND COMMENTS RECEIVED

4.1 Questionnaire

4.1.1 The following section provides a summary of the key findings from each of the questions, followed by a more detailed numerical analysis of the 231 questionnaires received in response to the consultation. Each of the percentage figures given is calculated as a proportion of the total responses received to each of the questions unless otherwise directed, as not all of the questions were answered by each respondent.

4.2 Question 1

4.2.1 This question asked respondents whether they considered that the traffic conditions in the South Wye area needed to be improved. The consensus of opinion from this question was that the traffic conditions in the South Wye area need to be improved.

4.3 Question 2

4.3.1 In response to the question "What do you think are the current transport problems within the South Wye area?" the following items from the list were shown to be the biggest five problems (ranked in order in order of responses received).

1) Traffic congestion on the A465 (a)
2) Delays at the A49/A465 signalised junction (c)
3) Traffic congestion on the A49 (b)
4) Volume of heavy goods vehicles (k)
5) Poor walking/cycling infrastructure (f)

4.3.2 97 of the respondents identified 'Other' problems. Several of the responses covered more than one problem. The issues raised have been grouped and those with the higher percentages are presented below. The percentages shown are as a proportion of the total number of 'Other' responses received.

- Reiterated their views from the list 36% (35)
- Need for a new river crossing 13% (13)
- Traffic lights 11% (11)
- Lack of Park & Ride facilities 5% (5)
- Poor highway maintenance 5% (5)
- Performance of Tesco roundabout 4% (4)
- School traffic 4% (4)
- Rat running 3% (3).

4.4 Question 3

4.4.1 In this question, respondents were asked to select all those measures that they thought may provide a solution to the problems identified in Question 2. The majority opted for a Southern Link Road as being the strongest measure for relieving the transport problems. Increasing space for cyclists, increasing space for buses, and park & ride/park & share facilities also scored very highly. Increasing space for pedestrians achieved the lowest number of responses.

4.4.2 102 people answered the 'Other' category to the question. These have been grouped and are presented below.

4.4.3 Of the measures raised (136):

- 43% were reiterated from the items in the list
- 33% were in support of an additional bypass of Hereford;
- 11% were in support of improvements to the Asda junction;
- 11% wanted to reduce the amount of school traffic;
- 5% suggested rail improvements;
- 4% wanted improvements to the traffic signals across the city; and
- 3% were in support of improved highway maintenance.

4.5 Question 4

4.5.1 In response to this question, respondents were asked to rank the three most important factors in choosing an option. 1 indicated the most important and 3 the least important. In order of number of responses the results are described below.

- The response which received the most 1's was (e) less congestion in Belmont;
- The response which received the most 2's was (a) impact on residential property;
- The response which received the most 3's was (b) impact on landscape; and
- The factor (f) access for tourism, received the lowest number of responses.

4.5.2 39 respondents replied to the 'Other' part of Question 4. 14 of these ranked their response while 25 respondents provided further information. The responses have been grouped together and are presented below:

- 36% of all factors raised were reiterated from the list above;
- Poor noise and air quality was identified 3 times;
- School traffic was highlighted 3 times;
- A bypass was identified twice;
- Traffic conditions at Asda roundabout was identified twice;
- Cost was highlighted twice; and
- Impact upon farming was identified by one person.

4.6 Question 5

4.6.1 In the questionnaire, respondents were given the option to select their preferred option from the four presented on the consultation panels. The percentage preference is shown below.

a) SC2	35%	**b) SC2A**	23%	**c) SC5**	8%	**d) SC7**	8%	**e) No Road**	26%

4.6.2 This illustrates that there was a clear preference for option SC2.

4.6.3 134 respondents provided further information to explain their reasons for choosing an option. 122 comments were raised by respondents regarding their choice of a Southern Link Road. These have been grouped and are presented below.

Reason	SC2	SC2A	SC5	SC7
Affects fewer residents	16	17	0	0
Least impact on landscape	11	9	0	0
Least visually intrusive	4	9	1	0
Most logical	4	3	0	0
Most cost effective	4	1	0	0
Improves noise pollution	2	7	0	0
Best link between A465 and B4349	2	1	2	1
Improve congestion along A465	1	0	0	0
Best opportunity for improved pedestrian/cycle facilities	1	4	0	0
Prevent rat running	1	0	0	0
Most visual impact	1	0	0	0
New road is essential	2	0	0	1
Least worst option	3	4	0	0
Avoids Grafton Wood	0	0	0	3
Slower speed limit	0	0	0	1
Historically planned route	0	0	0	3
Least environmental impact	0	0	0	2

4.6.4 A further 60 comments were raised by respondents regarding their choice of 'No Road'. These have been grouped and are presented below.

Reason	Total
Will not solve current problems	17
Waste of money	11
Improve existing routes	6
No need for the road	11
Negative impact upon environment	3
Impact on rural farmland	1
Spend money on sustainable transport	3
Will increase traffic	3

Disruption during construction	2
Prefer other option	2
Route will encourage HGVs	1

4.6.5 Additional comments were also raised and are summarised below:

- Support for an additional bypass;
- Need to remove traffic signals from Asda roundabout;
- Dualling the A49 from Ross on Wye; and
- Support for bus lanes and sustainable transport.

4.7 Question 6

4.7.1 In response to this question, people were given the opportunity to identify their interests in the scheme. There were a number of choices and respondents were asked to tick all that applied.

4.7.2 The majority of the responses classified themselves as (g) a regular user of the A465. A large proportion of the remaining responses showed that respondents were (f) a regular user of the A49 or (a) a resident of Belmont.

4.7.3 83 people completed the 'Other' part of this question. The interests identified within these responses are summarised below

Interest	Total
Live in Grafton	15
Close to the proposed SLR	10
Walk/cycle in the area	5
Live in Clehonger	3
Live on Haywood Lane	2
Newton Farm	2
Rural area	2
Merryhill Lane	2
Advising local residents	2
Live in Hereford	1
Dinedor	1
Peterchurch	1
South West Herefordshire	1
Puton	1
Allensmore	1
Member of Council	1

4.8 Question 7

4.8.1 As an open question, the responses to this question covered a wide range of issues. These have been grouped or classified for ease of interpretation. There were 103 responses. However, most people covered a limited number of issues in their answers.

4.8.2 Of the issues raised, those categories that were identified the most are shown below. The full records are illustrated in Appendix E.

Total	Issue
26	Support for an alternative bypass of Hereford N-S
17	In support of sustainable transport package
15	In support of SC2A as it affects least people and has the least impact on environment
13	In support of SC2 as it affects least people and has the least impact on environment
12	Do not support bus lanes along the A465
12	Concerned about the cost
10	Support the SLR
9	Do not support a SLR as they do not believe it will work
8	Improvements to Asda roundabout
7	Support for cycle lanes along the A465
7	Congestion on the A465 including parked cars
6	Support for bus lanes along the A465
6	Support for tidal flow lanes along the A465
5	Support park and ride facilities
5	Remove school traffic
5	Impact upon the environment

4.9 Question 8

4.9.1 Respondents were asked whether they attended an exhibition venue. 43% of those who responded to this question attended an exhibition venue.

4.10 Question 9

4.10.1 This question related to the provision of the exhibition. The following is a summary of the results, as a percentage of the responses to each part of the question.

- Did you receive sufficient notification of the exhibition? 37% said yes;
- Did the exhibition meet your expectations? 73% said yes;
- Was the information displayed sufficient to answer any queries that you may have had? 61% said yes;

- Did the venue suit you? 85% said yes;
- Were the opening times sufficiently long? 79% said yes; and
- Were the staff sufficiently informed to answer your questions? 69% said yes.

4.11 Question 10

4.11.1 The responses to this question "How did you hear about the exhibition?" are shown below.

a) Brochure through letter box	b) Local poster	c) Local radio	d) Newspaper advert	e) Word of mouth	f) Other
15%	2%	6%	6%	24%	55%

4.11.2 There were 104 written responses to the 'Other' option. 17% stated that they were invited to the Preview Evening, 23% had obtained brochures from local deposit locations, 12% were notified by either social media or the internet, and 15% were notified by their local MP or Councillor.

4.11.3 10% of respondents said that they did not hear about the exhibition until the exhibition was closed.

4.12 Question 11

4.12.1 There were 76 responses to the question "Do you have any suggestions to improve future exhibitions?" In summary 46% wanted more advertising in advance of the exhibitions, 13% wanted more technical information, 11% wanted either longer opening hours or more locations, 4% were not aware of the consultation, 4% wanted more engaged staff, and 7% wanted refreshments to be made available.

4.13 Detailed Breakdown of Questionnaire Results

4.13.1 The following tables give a more detailed breakdown of the responses to each of the questions.

Question			All	Comments
1	Do you consider that the traffic conditions in the South Wye area need to be improved? (220)	Yes (209)	95%	219 people answered Question 1. % given is as a proportion of the responses received.
		No (11)	5%	

Question			All	Rank	Comments
2	What do you think are the current transport problems within the South Wye area? (Please rank in order with 1 being the most important and 14 being the least important) (221)	a) Traffic congestion on the A465 (211)	3.00	1	The most important current transport problem in the South Wye area was considered to be the traffic congestion on the A465. The least important was 'Other'.
		b) Traffic congestion on the A49 (206)	4.63	3	
		c) Delays at the A49/A465 signalised junction (202)	4.00	2	
		d) Lack of pedestrian crossing facilities (196)	8.73	11	Although 141 people ranked 'Other', only 97 wrote text answers in the available space.
		e) Poor access to public transport (197)	7.07	6	
		f) Poor cycling/walking infrastructure (198)	7.03	5	
		g) Community severance (where traffic inhibits access to goods, services or people) (192)	8.78	12	221 people ranked options in Question 2. 5 people misinterpreted the question and ticked the options they thought applied. 5 respondents did not answer at all.
		h) Poor air quality/noise along the A465 (196)	8.14	9	
		i) Poor air quality/noise along the A49 (194)	9.21	13	
		j) Poor public transport links to rural areas (202)	7.18	7	
		k) Volume of heavy goods vehicles (209)	6.73	4	The figures in the All column represent the Sum of the Responses (e.g. 1+2+3+2+3+1…) divided by the total number of responses (e.g. 211, 206, 202…)
		l) Dependency on car use (200)	7.29	8	
		m) Traffic delays at the A49/Holme Lacy Road/Walnut Tree Avenue junction (195)	8.24	10	
		n) Other. Please specify below. (141)	10.09	14	

Question			All	Comments
3	Which measures would you see as addressing the problems identified in Question 2? (Tick all boxes that apply) (222)	a) Increasing space for pedestrians (52)	23%	222 people answered Question 3. % given is as a proportion of the responses received.
		b) Increasing space for cyclists (94)	42%	
		c) Increasing space for buses (95)	43%	Of the 222 respondents, 9 people ranked the options. Option e) was ranked the highest.
		d) Southern Link Road (125)	56%	
		e) Park & Ride/Park & Share facilities (104)	47%	
		f) Other. Please specify below. (102)	46%	102 people wrote text answers in the available space for 'Other'.

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Question			All	Rank	Comments
4	Rank the three most important factors in choosing an option. (1 being the most important; 3 being the least important.) (217)	a) Impact on residential property (106)	1.97	3	The most important factor in choosing an option was considered to be the removal of congestion from Belmont. The least important was access for tourism.
		b) Impact on landscape (101)	1.99	4	
		c) Impact on businesses (52)	2.25	8	
		d) Reducing traffic in communities (111)	2.02	5	39 people wrote text answers in the available space for 'Other'.
		e) Less congestion in Belmont (132)	1.50	1	
		f) Access for tourism (28)	2.46	9	
		g) Improved facilities for non-motorised users (82)	2.04	6	The figures in the All column represent the Sum of the Responses (e.g. 1+2+3+2+3+1…) divided by the total number of responses (e.g. 106, 101…)
		h) Improved access to employment opportunities (70)	2.14	7	
		i) Other. Please specify below. (14)	1.57	2	

Question			All	Comments
5	For the Southern Link Road, which option on the brochure map do you prefer if a new road were part of the solution? (Tick one box) (203)	a) SC2 (71)	35%	203 chose an option for Question 5. % given is as a proportion of the responses received.
		b) SC2A (46)	23%	
		c) SC5 (16)	8%	134 respondents (58% of all respondents) provided an explanation for their chosen option, including 10 people who did not chose an option.
		d) SC7 (17)	8%	
		e) No road (53)	26%	
		f) Please use the space below if you wish to explain your reasons for choosing an option above. (134)	58%	134 respondents provided further information.

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Question			All	Comments
6	Which of the following best describes your interest in the study? (Tick those boxes that apply) (228)	a) I am a resident of Belmont (67)	29%	228 people answered Question 6. % given is as a proportion of the responses received.
		b) I am a resident of Lower Bullingham (9)	4%	
		c) I am a local resident of Redhill (5)	2%	
		d) I own land through which one of the routes would pass (8)	4%	
		e) I work at the Rotherwas Industrial Estate (11)	5%	
		f) I am a regular user of the A49 (97)	43%	
		g) I am a regular user of the A465 (137)	60%	
		h) I am a tourist or a visitor to the area (6)	3%	
		i) Other. Please specify below. (84)	37%	

Question		All	Comments
7	Please add any other comments you may have (103)	45%	103 people added further comments. % given is as a proportion of all respondents.

Question			All	Comments
8	Did you attend an exhibition venue? (222)	Yes (96)	43%	222 people answered Question 8. % given is as a proportion of the responses received.
		No (126)	57%	

Question			All	Comments
9	a) Did you receive sufficient notification of the exhibition? (175)	Yes (65)	37%	
		No (110)	63%	
	b) Did the exhibition meet your expectations? (101)	Yes (74)	73%	
		No (27)	27%	
	c) Was the information displayed sufficient to answer any queries that you may have had? (104)	Yes (63)	61%	
		No (41)	39%	
	d) Did the venue suit you? (108)	Yes (92)	85%	
		No (16)	15%	
	e) Were the opening times sufficiently long? (107)	Yes (85)	79%	
		No (22)	21%	
	f) Were the staff sufficiently informed to answer your questions? (95)	Yes (66)	69%	
		No (29)	31%	

Question			All	Comments
10	How did you hear about the exhibition? (Tick all boxes that apply) (190)	a) Brochure through letter box (28)	15%	190 people answered Question 10. % given is as a proportion of the responses received.
		b) Local Poster (4)	2%	
		c) Local Radio (12)	6%	
		d) Newspaper advert (12)	6%	
		e) Word of mouth (46)	24%	
		f) Other. Please specify (104)	55%	

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Question		All	Comments
11	Do you have any suggestions to improve future exhibitions? (76)	33%	76 people added further comments. % given is as a proportion of all respondents.

4.14 Analysis of Community Views

4.14.1 Further to the feedback received from the questionnaires, comments have also been analysed from 24 letters and submissions received from local residents. These detailed submissions have been considered and are held on file. The responses received were many and varied, but a number of more common themes were evident. These are summarised below.

4.14.2 Various traffic problems along the A465 Belmont Road were highlighted, including cars parking, bus stops creating hold ups, and congestion at junctions, which is creating poor air quality and noise. Several people, however, mentioned that the Highway Agency have reported a reduction in traffic volume on the A49 in recent years.

4.14.3 Many of the letters from local residents supported funding the sustainable transport measures proposed in the SWTP as a way to tackle the congestion problems. Support was given to improving and widening footways, and making routes and crossings safer. Whilst it was recognised that there is existing cycle infrastructure in the South Wye area that had not been detailed in the exhibition panels, it was acknowledged that perhaps more was needed to encourage use of the routes, by making the routes safer and more welcoming.

4.14.4 Whilst there was some support for introducing a bus lane to the A465, a popular comment was the need to increase the bus services first. People wanted to see bus laybys, which would remove them from the carriageway when they are stopped to limit traffic from being held up. Concern was raised that creating a bus lane could make congestion worse for other road users, and perhaps the space could be used to create tidal flow lanes. There was, however, support for a park & ride scheme to be included in the package.

4.14.5 A common response involved the high level of traffic during school terms, when congestion is at its worst, and the recognition of this reducing during the school holidays. Suggestions therefore included encouraging parents to walk their children to school instead of using their cars.

4.14.6 With regards to the proposed Southern Link Road, some letters highlighted the impacts that need to be taken into consideration. These include the impact on farming and livelihoods given the rural location. The impact to biodiversity and the environment was highlighted as a worry. However, there was an examination of the status of Hayleasow Wood as an “Ancient Woodland”, as it was felled in the 1960s.

4.14.7 Concern was raised over the impact to the landscape and the blight on the countryside, which could reduce tourism. There was also concern over heritage assets, including the potential damage to the setting of Grade II* listed buildings. It was noted that there was not enough mention of mitigation measures, including reducing the visual impact of the road.

4.14.8 People were also concerned that not enough evidence had been provided to justify the potential cost of the new road, and debated whether it would solve the current congestion problems. People would have liked to have seen detailed traffic figures to show the predicted use of the new road. Some people would have preferred to see the money being spent on public transport and traffic management. Others considered that they could not be objective without a detailed breakdown of the costs associated with each route.

4.14.9 It was acknowledged that the assertion in the exhibition that the new road will unlock barriers to development of the Hereford Enterprise Zone (HEZ) and further housing development is misleading, as the location would never have been chosen and approved if significant barriers to development existed. Some also highlighted that the Rotherwas Relief Road was built for this purpose and is under-used. Some were also uncomfortable with the outcome that the new road would help unlock further housing development, as they felt more housing would make traffic worse.

4.14.10 There were mixed views regarding the process, with some stating that a wider choice of routes for the Southern Link Road should have been included at this public consultation, and others feeling that the process should have been further along with a preferred route already chosen. There is the opinion that there should "be more meetings, more publicity and more incentives for people who want to attend them", whilst others are "extremely anxious for this project to go ahead with no opportunity for legal delays".

4.14.11 The planning process was also considered. It was noted that the preferred routes included in this consultation differ from the historically established alignment.

4.14.12 It was also debated which road choice would affect residents the most, with most responses concluding that the alignments for SC2 and SC2A would affect fewer properties.

4.14.13 Questions over the methodology applied to the Appraisal Summary Tables used to score each alignment have been put forward.

4.14.14 Some local residents have requested that the proposed alignments be considered in relation to their land and properties, and therefore perhaps slightly tweaked in order to achieve a more preferable route.

4.15 Analysis of Social Media Responses

4.15.1 Two responses on Facebook highlighted the inconsistencies of the costs associated with the package that have been detailed at various stages throughout the process.

4.15.2 Opinions of the cause of the congestion problems in the South Wye area were also given, including an observation that traffic bottlenecks at the Greyfriars Bridge, with local vehicles wanting to cross from the south to the city centre, north of the river. The feedback includes the suggestion that there needs to be another way to cross the river.

4.15.3 Twitter was used to advertise the public exhibition, both by Herefordshire Council and local MP Jesse Norman. However, no members of the public used this website to provide feedback.

4.16 Analysis of Stakeholder Views

4.16.1 **Hereford City Council** has provided feedback on the proposals, and has commented that improving facilities for cyclists generally is highly desirable. It recognises that there may be some difficulties installing a cycle lane on the length of the Belmont Road, given the narrow width at points. If safe separation can be achieved without increasing congestion on an over-crowded road, then the Council would support such a plan. It has been acknowledged that local Councillors regard congestion in Belmont Road as a real concern, which they point out is echoed in the community consultation responses.

4.16.2 **The Highways Agency** has provided its views in writing. It acknowledges the commitment of £34.98 million towards the SWTP from the Marches Local Enterprise Partnership (LEP) single growth fund settlement. It notes that the SWTP provides a series of complementary transport measures, which is welcomed in principle. It supports the proposed improvements to walking and cycling on the A465, but would like to understand the traffic implications to the A49 if a bus priority measure were to be included. The Agency notes that the route alignment options appear to reflect the need to consider local topography. It supports the location of the junction with the A49 at the roundabout with the Rotherwas Access Road in principle, provided assessments of capacity are undertaken. The Agency requests that the design standards and alignment of the scheme are considered with reference to the Western Relief Road, should the Council's Submission Draft Core Strategy be approved.

4.16.3 **English Heritage** has provided its views in writing. The outlined that they were not directly consulted on the recent consultation of the four options. They acknowledge that there are a number of heritage assets, both designated and undesignated that may be affected by the proposed routes. They outline that a more detailed assessment of the harm to the significance of the heritage assets, including their settings will be required. They also recognise that as a statutory agency they will be engaged through any future planning application and EIA stage, although they want to highlight that the Council should ensure that all the appropriate evidence base and assessment has been undertaken in identifying the preferred route in the first instance.

4.16.4 **Jesse Norman MP** has provided a written response to the consultation in his capacity as Member of Parliament for Hereford and South Herefordshire. He welcomes the objectives of the SWTP, and is broadly in favour of the measures proposed to improve accessibility and reduce congestion in Hereford. He does, however, have some caveats and concerns, including the need to have costings and detailed traffic modelling in order to appraise the effect of the Southern Link Road. He would like to see a detailed cost-benefit analysis before approval. He also recognises the need for sensitivity towards the environment and local residents, and urges that their concerns are listened to. He welcomes proposals to provide additional pedestrian crossings, and would like to see existing cycle infrastructure made safer and more welcoming. He has concerns over the proposed bus lane, for instance how it would be monitored, and if it is indeed necessary given the cuts to bus services.

4.16.5 All letters, submissions, and correspondence that have been received regarding the consultation have been considered and are held on file.

5 CONCLUSIONS

5.1 Effectiveness of Consultation

5.1.1 The total attendance at the exhibitions was 199 people, with a total number of responses to questionnaires of 231. 217 of the responses came from within the County of Herefordshire. 50 of these were from residents of Belmont, and 22 were from St Martins and Hinton.

5.1.2 It is considered that the consultation, which has followed the principles of the guidance outlined in WebTAG, has been effective in terms of the local coverage and attendance. Although a criticism by the public is that there should have been greater publicity in the run up to the Public Consultation Exhibition. It is clear from the consultation that, with such a large study area, affecting a combination of rural, urban, farming and industrial landscapes, the views are wide-ranging.

5.2 Outstanding Actions

5.2.1 Following issues raised during the consultation, members of the public have suggested alternative alignments to the Southern Link Road options. These alternative alignments have been reviewed, and are addressed within the South Wye Transport Package Preferred Option Report.

5.3 Summary of Public Consultation Results

5.3.1 The majority of those members of the public who completed and returned questionnaires to the consultation, considered themselves to be either regular users of the A465 or A49, or a resident of Belmont.

5.3.2 The responses showed that there was clear support for the opinion that the traffic conditions in the South Wye area need to be improved.

5.3.3 The public identified congestion along the A465, the A49 and at the A49/A465 junction as the main transport problems within the area. The amount of HGVs and accessibility to public transport were regularly mentioned as other key problems.

5.3.4 The overall theme which appeared to consolidate across the majority of the responses was that a Southern Link Road is necessary, with a combination of more cycling infrastructure and greater public transport provision.

5.3.5 It was possible to identify the likely preferred route in the opinion of the public who responded to the public consultation as SC2. This option was also supported by a 73-name petition, and 'scored' highly in the appraisal of the SLR options. The alternative 'No Road' option to the SLR received the second highest number of positive responses. The two SLR options that have a northern alignment, SC5 and SC7, received the lowest amount of support from the public.

5.3.6 There was also strong support for an alternative bypass via a second river crossing of the Wye, either to the west or east of Hereford, although this was not presented as an option during the consultation.

Appendix A

Public Consultation Brochure

Herefordshire Council

July 2014

South Wye Transport Package











PARSONS BRINCKERHOFF

Balfour Beatty Living Places

Welcome

Herefordshire Council is looking at ways to improve the transport conditions in the South Wye area of Hereford as part of the council's overall strategy for the city.

We would like your views on the transportation problems and options. Herefordshire Council is going to hold free public exhibitions which will explain these options in more detail. Information on these exhibitions is below and on the back of this brochure.

This brochure provides information on:

- The forthcoming public exhibitions in Hereford
- The development of the study and descriptions of the transport improvement options
- How you can make comments on the options
- What happens next

Exhibition times and venue

Date	Venue	Time
Tuesday 1 July 2014	Three Counties Hotel, Hereford	12:00 – 20:00
Wednesday 2 July 2014		
Thursday 3 July 2014		



Three Counties Hotel, Hereford

Purpose of the study

The aim of the South Wye Transport Package is to promote Herefordshire Council's and the Marches Local Enterprise Partnership's (LEP) aspirations for economic growth within Hereford while tackling the specific problems identified within the South Wye area. They aim to promote economic development by unlocking the barriers for both housing and economic growth, including land at the Hereford Enterprise Zone (HEZ).

Specific problems identified within the South Wye area have predominantly been caused by the level of congestion along the A465. This has resulted in poor levels of air quality, noise, and public transport usage which have resulted in large numbers of short distance trips being made by car. This in turn has led to less physical activity resulting in greater health problems.

Objectives for the study:

- Reduce congestion and delay
- Enable access, particularly to developments such as the HEZ
- Reduce the growth in emissions such as CO2, NOx and PM10s
- Reduce traffic noise
- Encourage physical activity
- Reduce accidents

The results of the appraisal to date are summarised in this brochure and will be available in more detail at the public exhibitions.

Future problems

If nothing is done we expect increased congestion along the A465 as a result of economic growth with the following consequences:

- Further severance within the community due to greater levels of traffic
- Lower accessibility to public transport and less use of roads for walking/cycling resulting in less physical activity
- Longer public transport journey times due to buses being stuck in greater queues
- An increase in heavy good vehicles creating more noise, air pollutants and further reduction in perceived pedestrian and cyclist safety
- Reduced network resilience as greater traffic flow is constrained to two routes
- Further social deprivation as a result of constrained economic and housing development

Package assembly

We have identified a number of possible elements that could address the problems and objectives of the study. These elements cover many different transportation modes, strategies and interventions. The elements have been grouped into three key approaches which are:

Traffic Max

This approach aims to generate maximum capacity for vehicles within the South Wye area by either widening the A465 to accommodate two lanes in each direction, grade separation of the A49/A465 junction or the removal of traffic signals from the A49/A465 junction.

Sustainable Transport Max

This approach aims to reduce the use of the private car through improvements to public transport, the introduction of bus lanes, segregated cycle routes and lanes, pedestrian crossings, the introduction of a tree line boulevard along the A465 or small localised improvements.

New Southern Link Road

This approach aims to generate additional capacity with new infrastructure to the south of Hereford.

Package of measures assessment

A high level qualilative assessment has been undertaken on the three approaches and is summarised below.

The assessment illustrates that none of the three approaches satisfies all of the study objectives. The 'Traffic Max' approach does not provide substantial benefit within the South Wye area nor does it satisfy any of the study objectives. Therefore this approach has not been deemed feasible and did not undergo further assessment

The 'Sustainable Max' and the 'New Southern Link Road' contribute to the delivery of the study objectives but do not satisfy all of the objectives in isolation. Therefore the recommendation for the South Wye Transport Package is to combine the 'New Southern Link Road' with elements of the 'Sustainable Transport Max' approach.

	Package approach			
Objectives	**Traffic Max**	**Sustainable Transport Max**	**New Southern Link Road (SLR)**	**Sustainable Transport Max and New SLR**
Reduce congestion and delay	–	–	✓	✓
Enable access, particularly to developments such as the HEZ	x	x	✓	✓
Reduce the growth in emissions such as CO2, NOx and PM10s	x	✓	–	✓
Reduce traffic noise	x	✓	–	✓
Encourage physical activity	x	✓	–	✓
Reduce accidents	–	–	✓	✓

x Does not meet objective
– Partially meets objective
✓ Fully meets objective

Sustainable Transport Max

The Sustainable Transport Max is shown schematically on page 6 and indicates the potential elements that could be used in a preferred Sustainable Transport Max option. It includes the inbound bus lane along the A465 as further appraisal has indicated that the element offers the greatest economic benefits, including time savings and greater service reliability for bus users. The bus lane could be used by bicycles, and improvements to crossing facilities on the A465 will offset any adverse severance impacts due to the widening of the carriageway. The bus lane would require the removal of some residents parking on the A465.

The scheme will also be complimented with a Personalised Travel Planning programme for both the Belmont and Holme Lacy Road areas.

New Southern Link Road

The Southern Link Road involves the construction of a new section of road between the A49 Ross Road/Rotherwas Access Road Roundabout to the A465 and the B4349 Clehonger Road. A link to Clehonger Road has been included to overcome the current poor visibility of the existing junction with the A465.

In total eight options were initially developed. As further detailed work and appraisal has been undertaken on these options, four routes have been identified as affecting the ancient woodland of Newton Coppice. National policy now considers ancient woodland as an irreplaceable habitat which is unlikely to be fully mitigated. These options are therefore not feasible.

The remaining options are described below and illustrated on page 7 of this brochure:

Route Option SC2

Involves the construction of a new roundabout on the A465. The road passes through the centre of Grafton Wood and continues westwards over Grafton Lane and Withy Brook. Thereafter, it straightens up immediately heading in a north-west direction to the A465.

Route Option SC2A

The alignment is identical to SC2, except that the new road section will pass underneath the railway line.

Route Option SC5

Passes through the northern part of Grafton Wood and in a north-westerly direction, crosses the densely wooded area between Grafton Lane and Withy Brook before turning west to cross underneath the railway line. The route continues through Merry Hill and under Haywood Lane towards the A465.

Route Option SC7

Passes through the northern tip of Grafton Wood but avoids the southern extent of the dense wooded area between Grafton Lane and Withy Brook. It then runs to the south of Merryhill Lane before cutting through Merry Hill and under Haywood Lane. From this location the road heads in a westerly direction to the A465.

All of these options would include a weight restriction on the A465 at the bridge of the Great Western Way, with supporting signage at either end of Belmont Road.



New Southern Link Road appraisal

To identify the overall success of the New Southern Link Road an appraisal has been undertaken on the four feasible options combined with Sustainable Transport Max. The appraisal process carefully considers all the impacts – positive and negative done by considering the scheme against a standard set of criteria, set out by the Department for Transport. This then enables the council to make an informed decision.

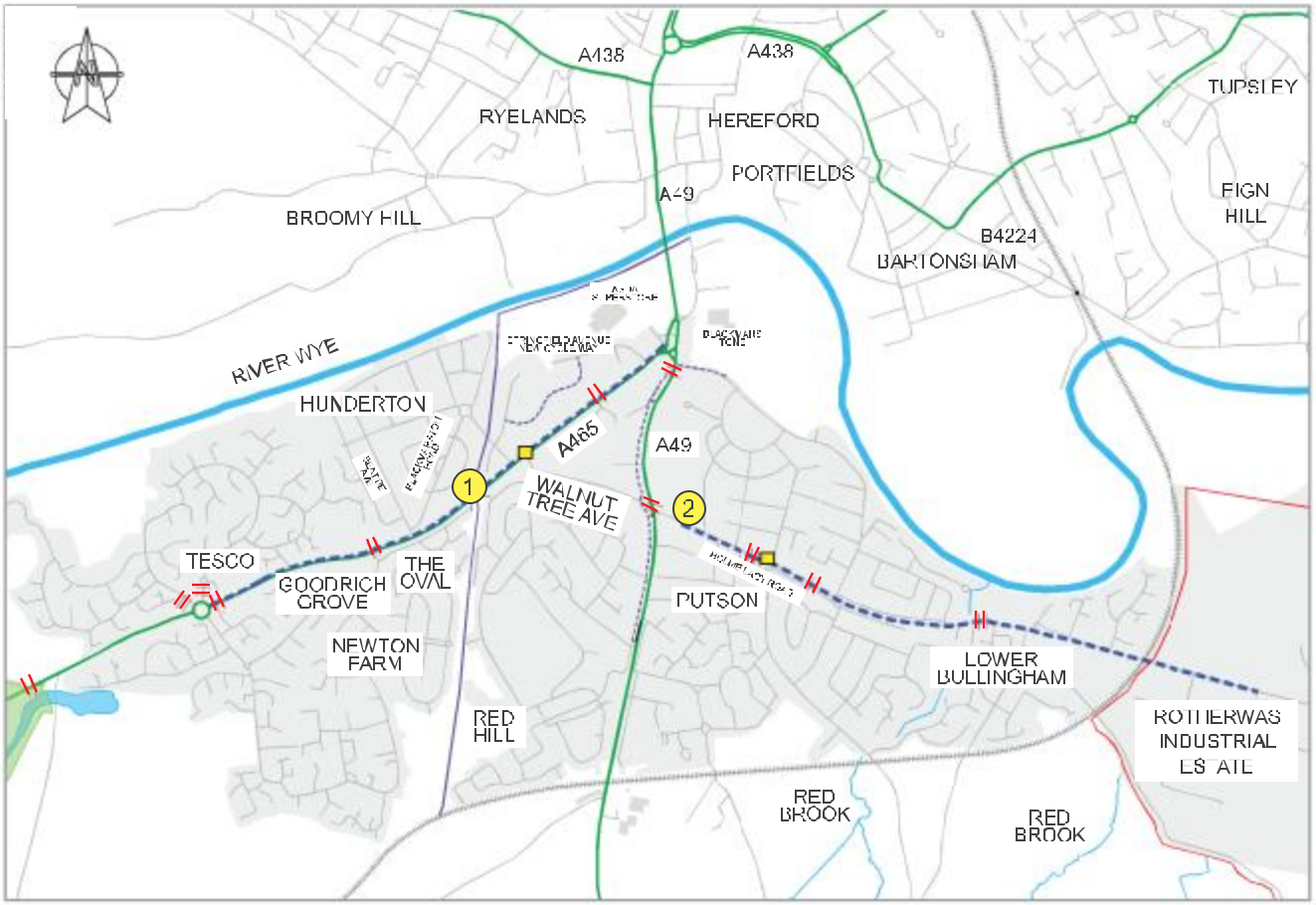
Appraisal criteria	SC2	SC2A	SC5	SC7
Economy				
Business users and transport providers	1	1	1	1
Reliability impact on business users	1	1	1	1
Regeneration	3	3	3	3
Wider impacts	2	2	2	2
Environment				
Noise	-3	-3	-3	-3
Air quality (LOCAL)	-2	-2	-2	-2
Greenhouse gases	-1	-1	-1	-1
Landscape/townscape	-2	-2	-3	-2
Historic environment	-1.5	-1.5	-1.5	-1.5
Biodiversity	-2	-2	-2	-1.5
Water environment	-1	-1	-1	-1
Social				
Commuting and other users	1	1	1	1
Reliability impact on commuting and other users	1	1	1	1
Physical activity	-2	-2	-2	-2
Journey quality	2	2	1	1
Accidents	2	2	2	2
Security	2	2	2	2
Access to services	2	2	2	2
Affordability	1	1	1	1
Severance	1	1	1	1
Option and non-use values	0	0	0	0
Public accounts				
Cost to broad transport budget	2	1	0	0
Indirect tax revenues	0	0	0	0
Total	**6.5**	**5.5**	**2.5**	**4**

Note: The scores are made up of criteria under the main headings of Economy, Environment, Social and Public Accounts. The range for the scores is from -3 (Major Adverse), to 0 (Neutral), to -3 (Major Beneficial).

The results of the appraisal show that all of the options provide many benefits to the economy by unlocking barriers to the development of the Hereford Enterprise Zone and further housing development. They all reduce congestion and improve journey times. There are also negative impacts to the environment, including increasing road traffic noise, reducing air quality and impacts to the landscape.

Overall the appraisal illustrates that **option SC2 is the best performing option for New Southern Link Road.**

Sustainable Transport Max



Key

- Proposed Bus and Cycle Way
- Proposed Cycle Way
- A Road
- Pedestrian/cycle crossing improvement
- Junction improvement
- Existing Cycle Way to be improved
- Rotherwas Industrial Estate

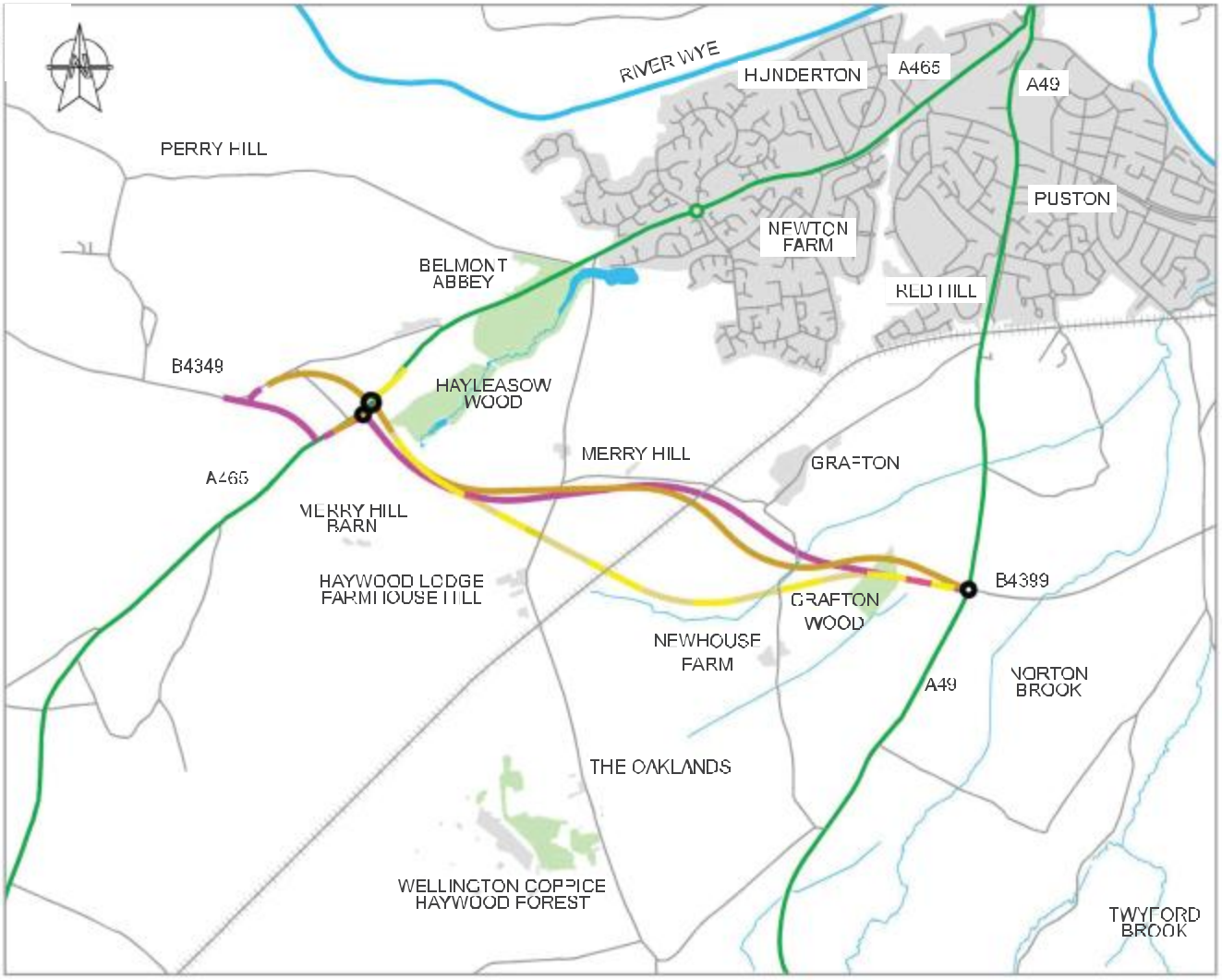


Photomontage illustrating a northbound bus lane on the A465



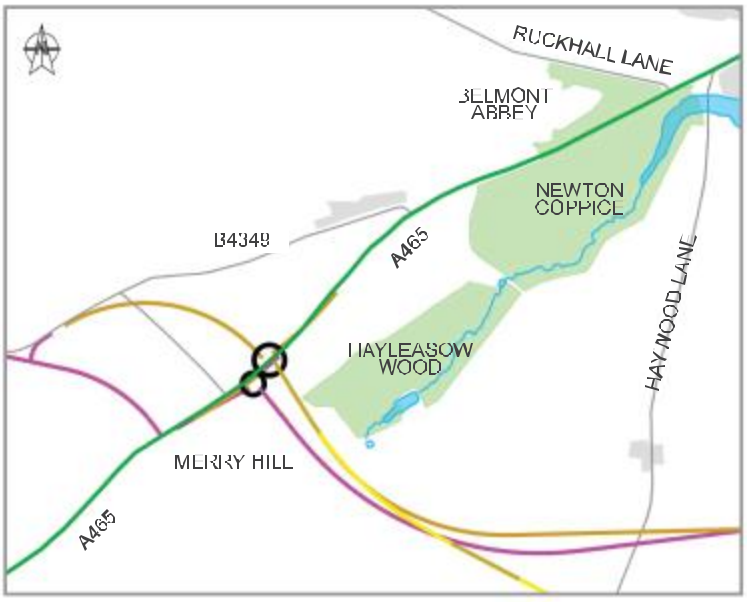
Photomontage illustrating a westbound bus lane along Holme Lacy Road

New Southern Link Road options



Key

- SC2
- SC2A
- SC5
- SC7
- RBT
- Woodland
- A Road
- B Road



Herefordshire Council

July 2014

South Wye Transport Package

How can you help?

You can give your views on the study by returning the enclosed questionnaire by 8 August 2014.

We recommend that you visit one of the public exhibitions where representatives from Herefordshire Council and their consultants will be available to answer your questions and explain the study in more detail.

Exhibition times and venue

Date	Venue	Time
Tuesday 1 July 2014	Three Counties Hotel, Hereford	12:00 – 20:00
Wednesday 2 July 2014		
Thursday 3 July 2014		

What happens next?

Completed questionnaires and any other comments received in response to this Public Consultation will be considered carefully by Herefordshire Council, Balfour Beatty Living Places and Parsons Brinckerhoff. A decision will then be made on a preferred route for the New Southern Link Road in early Autumn.

How to make an enquiry

Contact Herefordshire Council with your feedback or queries by:

- Attending one of the public exhibitions in Hereford
- Returning the questionnaire to the Freepost address

Access to information

Herefordshire Council will use the questionnaires and any further information from the public to provide evidence for developing ways to improve transport in the South Wye area. The questionnaire will be disposed of securely after it has served this purpose. A summary of the responses to the consultation will be published, a list comprising of names and postal towns (e.g. Mr A N Other, Hereford) of those who have responded will be included. If you do not wish to be identified, even as in the proposed example, you will need to advise us by including a note in your response or tick the required box on the questionnaire.

Herefordshire Council is subject to the Freedom of Information Act 2000, (FoI) and Environmental Information Regulations (EIRs) which means that this questionnaire may be released in response to a request for information. However, all personal data on your form will be treated in line with our obligations under the Data Protection Act, 1998.

If you are unable to attend the public exhibition, please visit **www.herefordshire.go.uk/south-wye-transport-package** from the 1 July 2014 for up to date information on the SWTP.

You can also join us on Facebook at **www.facebook.com/HfdsCouncil** and Twitter **@HfdsCouncil** where we will welcome your opinions and feedback.

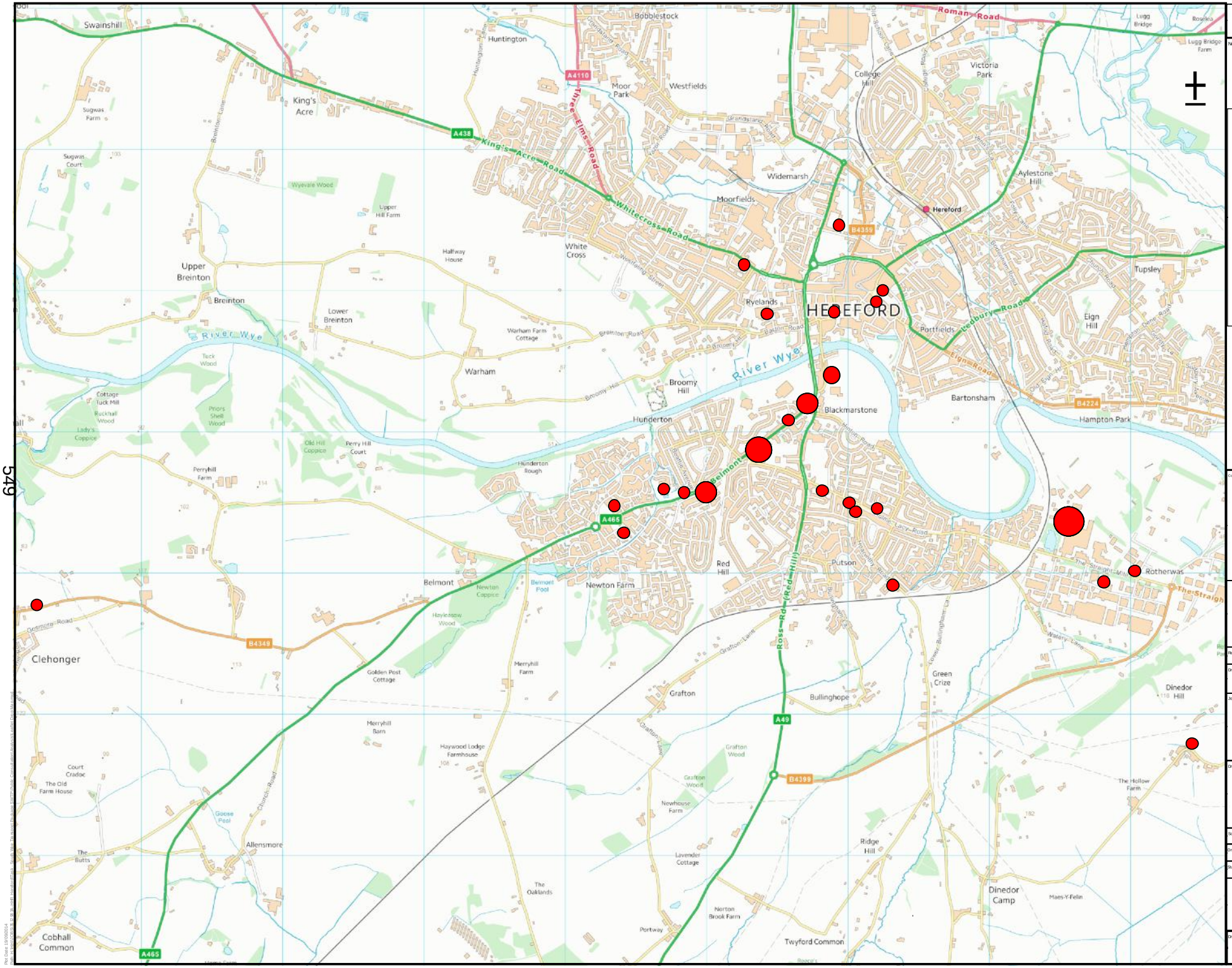
This brochure and supporting documentation is available in alternative formats on request.

PARSONS BRINCKERHOFF

Balfour Beatty Living Places

Appendix B

Leaflet Drop Locations



549

THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

Notes

Key

Number of drop locations according to postcode

1
2
3
4
5

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2011

Revision Details	By / Check	Date	Suffix

Drawing Status: FINAL

Job Title: 3512983A-HHR
South Wye Transport Package

Drawing Title: Leaflet Drop Locations

Scale at A1: 1:24,000

Drawn	Approved		
Alison Simpson	Jason Collins		
Stage 1 check	Stage 2 check	Originated	Date 19/09/2014

PARSONS BRINCKERHOFF
2729 Cathedral Road,
Cardiff, CF11 9HA.
Tel: 02920 627000 Fax: 02920 627001

Drawing Number: Leaflet Drop Map

Rev: A

Appendix C

Public Consultation Questionnaire

South Wye Transport Package

PUBLIC CONSULTATION QUESTIONNAIRE

We would like to know your views on the options for improving transport conditions in the South Wye area with a package of measures including a new Southern Link Road as part of the council's overall strategy for Hereford. The consultation brochure and the exhibition explain the options and their likely effects. Please complete the questionnaire below by marking the relevant boxes.

Your views will be treated in confidence and will be taken into account in making decisions about the scheme. Confidentiality, privacy and data protection issues are explained at the end of this questionnaire and in the consultation brochure in full under the heading Access to Information.

Name: ……

Address: ……
……
……

Please print your name, address and post code in CAPITALS.

Post Code: ……

<u>This is only required to check the geographical origin of responses</u>.

Question 1

Yes	No

Do you consider that the traffic conditions in the South Wye area need to be improved?

Question 2

What do you think are the current transport problems within the South Wye area? **(Please rank in order, with 1 being the most important and 14 being the least important)**

a) Traffic congestion on the A465	**a)**
b) Traffic congestion on the A49	**b)**
c) Delays at the A49/A465 signalised junction	**c)**
d) Lack of pedestrian crossing facilities	**d)**
e) Poor access to public transport	**e)**
f) Poor cycling/walking infrastructure	**f)**
g) Community severance (where traffic inhibits access to goods, services or people)	**g)**
h) Poor air quality/noise along the A465	**h)**
i) Poor air quality/noise along the A49	**i)**
j) Poor public transport links to rural areas	**j)**
k) Volume of heavy goods vehicles	**k)**
l) Dependency on car use	**l)**
m) Traffic delays at the A49/Holme Lacy/ Walnut Tree Avenue junction	**m)**
n) Other. Please specify below.	**n)**

……

……

……

……

Question 3

Which measures would you see as addressing the problems identified in Question 2? **(Tick all boxes that apply)**

a) Increasing space for pedestrians	**a)**	
b) Increasing space for cyclists	**b)**	
c) Increasing space for buses	**c)**	
d) Southern Link Road	**d)**	
e) Park & Ride / Park & Share facilities	**e)**	
f) Other. Please specify below.	**f)**	

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Question 4

Rank the **three** most important factors in choosing an option. **(1 being the most important; 3 being the least important.)**

a) Impact on residential property	**a)**	
b) Impact on landscape	**b)**	
c) Impact on businesses	**c)**	
d) Reducing traffic in communities	**d)**	
e) Less congestion in Belmont	**e)**	
f) Access for tourism	**f)**	
g) Improved facilities for non-motorised users	**g)**	
h) Improved access to employment opportunities	**h)**	
i) Other. Please specify below.	**i)**	

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Question 5

For the Southern Link Road, which option on the brochure map do you prefer if a new road were part of the solution? **(Tick one box)**

a) SC2	**b)** SC2A	**c)** SC5	**d)** SC7	**e)** No road

Please use the space below if you wish to explain your reasons for choosing an option above.

……..……..

……

……

……

……

Question 6

Which of the following **best** describes your interest in the study? **(Tick those boxes that apply)**

a) I am a resident of Belmont	**a)**
b) I am a resident of Lower Bullingham	**b)**
c) I am a local resident of Redhill	**c)**
d) I own land through which one of the routes would pass	**d)**
e) I work at the Rotherwas Industrial Estate	**e)**
f) I am a regular user of the A49	**f)**
g) I am a regular user of the A465	**g)**
h) I am a tourist or a visitor to the area	**h)**
i) Other. Please specify below.	**i)**

……..……..

Question 7

Please add any other comments you may have (continue on separate paper if necessary).

……

……

……

……

……

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……

We would appreciate your feedback on the exhibition.

Question 8

Did you attend an exhibition venue?

Yes	No

Question 9

	Yes	No
a) Did you receive sufficient notification of the exhibition?		
b) Did the exhibition meet your expectations?		
c) Was the information displayed sufficient to answer any queries that you may have had?		
d) Did the venue suit you?		
e) Were the opening times sufficiently long?		
f) Were the staff sufficiently informed to answer your questions?		

Question 10

How did you hear about this exhibition? **(Tick all boxes that apply)**

a) Brochure through letter box		**b)** Local poster		**c)** Local radio		**d)** Newspaper advert		**e)** Word of mouth		**f)** Other. Please specify	

f) Other ……

Question 11

Do you have any suggestions to improve future exhibitions?

……

Access to Information

Herefordshire Council and its consultants will use the questionnaires to provide evidence for developing ways to improve transport in the South Wye area. The questionnaires will be disposed of securely after they have served this purpose. A summary of the responses to the consultation will be published and a list comprising of names and postal towns (e.g. Mr A N Other, Belmont) of those who have responded will be included. If you do not wish to be identified, even as in the proposed example, please tick the following box. ☐

Herefordshire Council is subject to the Freedom of Information Act, 2000, (FoI) and Environmental Information Regulations (EIRs) which means that the questionnaires may be released in response to a request for information. However, all personal data on your form will be treated in line with our obligations under the Data Protection Act, 1998.

Alternative formats of this questionnaire are available upon request

FREEPOST: RTHL-BBZH-JATH,
Balfour Beatty Living Places,
Unit 3,
Thorn Business Park,
Rotherwas,
HEREFORD.
HR2 6JT

Please return the questionnaire and feedback by 8 August 2014

THANK YOU FOR TAKING THE TIME TO COMPLETE THIS QUESTIONNAIRE

Appendix D

Public Exhibition Panels

SOUTH WYE TRANSPORT PACKAGE

WELCOME

PUBLIC CONSULTATION EXHIBITION

Welcome to the Public Consultation Exhibition for the South Wye Transport Package.

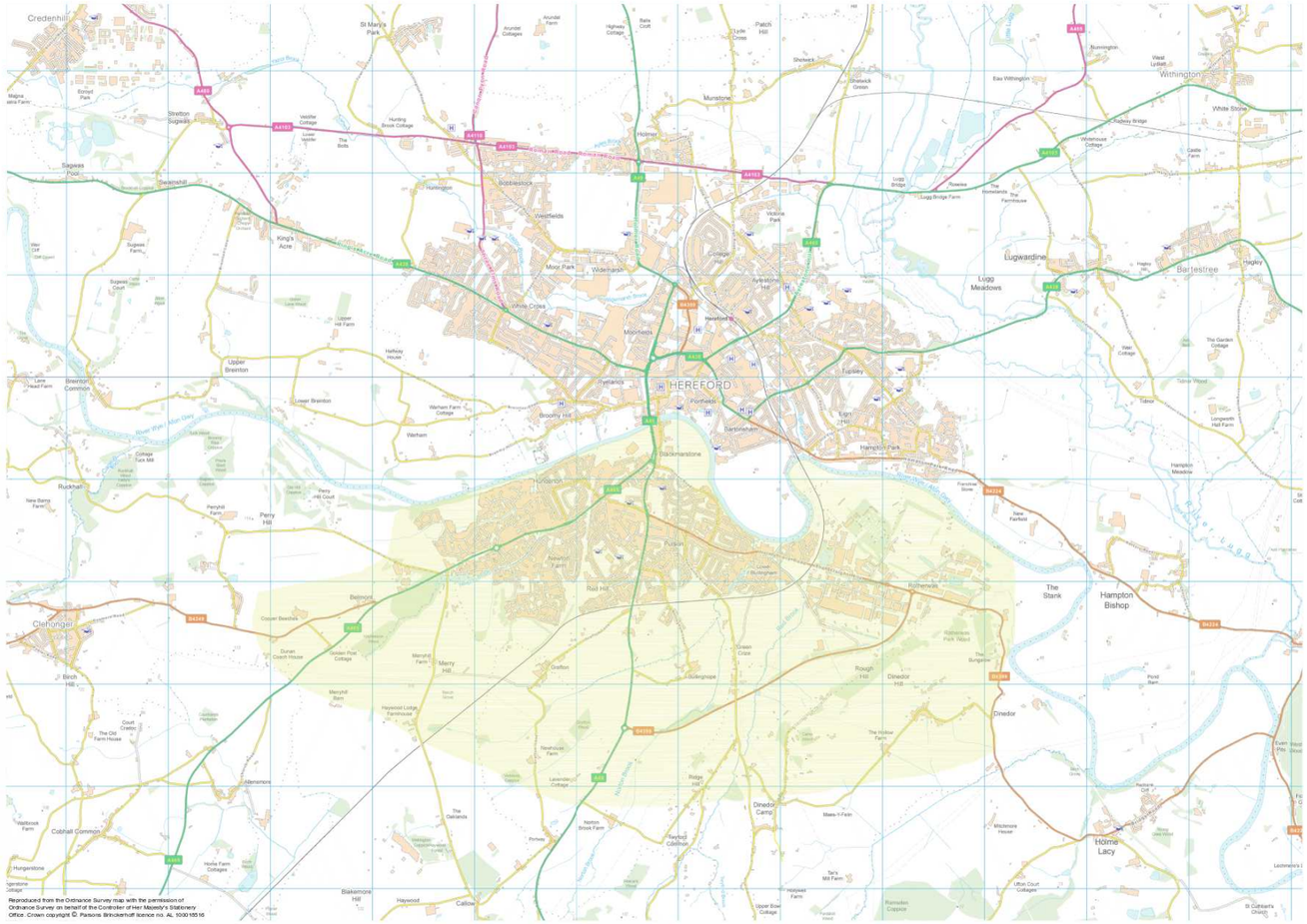
Herefordshire Council is studying ways to improve the transport conditions in the South Wye area of Hereford. The South Wye Transport Package could consist of a number of different elements, both sustainable use of the existing transport network and other new schemes such as a new Southern Link Road (SLR).

The process we have followed whilst developing the options presented in the consultation includes:

- Review of problems within the South Wye area;
- Assessment of council policy regarding economic development within Hereford;
- Appraisal of different elements to ensure that the package best deals with existing problems and future opportunities;
- Refinement and appraisal of SLR options; and
- Recommendation of a preferred option for the SLR, of which we are now seeking your views.

KEY

South Wye Transport Package Study Area



To assist your understanding of the study, there are representatives from Herefordshire Council, Balfour Beatty Living Places, and Parsons Brinckerhoff available to answer your questions.

There is a questionnaire you can fill in whilst at the exhibition or alternatively, you can return it to us using the freepost address provided. There is also information on how you can comment further on the consultation on the final exhibition board. The consultation runs from **1st July** until **8th August 2014**. Your feedback is very important to us.

Thank you.



Balfour Beatty Living Places

In partnership with Herefordshire Council

PARSONS BRINCKERHOFF

HISTORY AND CONTEXT

Hereford is the main service centre and largest urban area in Herefordshire, with a population of 54,850, of which two thirds live south of the River Wye. The city of Hereford is the county's main centre for employment, administration, health, education and shopping.

The Marches Local Enterprise Partnership (LEP) Strategic Economic Plan sets out how the LEP aims to unlock growth and prosperity across the area. It sets out priorities in addressing areas of business need including transport, education and investment need whilst unlocking land for housing and employment growth.

Herefordshire Council's emerging Core Strategy has set objectives to promote:

- *social progress (supporting strong communities by meeting housing, education and health, transport and infrastructure needs) including the development of 1,000 homes at Bullingham;*
- *economic prosperity (supporting new jobs, area regeneration, business, tourism and retail); and*
- *environmental quality (addressing climate change, protecting and enhancing the environmental assets of the county).'*

A 'Hereford Relief Road' has been identified as a key strategic transport proposal to deliver the council's Core Strategy.



Herefordshire Council's Local Transport Plan (LTP) identifies that that efficient transport networks is essential and important for the county's economy, the ability to access services and maintain independence. The LTP therefore sets objectives which are to:

- *reduce short distance car based trips and the impact of car access;*
- *support regeneration and the successful investment in jobs at the Rotherwas Enterprise Zone;*
- *ensure that the County's highway network remains fit for purpose and is safe; and*
- *provide alternatives so that commuters could reduce their car use and adopt healthier lifestyles.*

Part of Rotherwas Estate was awarded Enterprise Zone status in 2011. This means the area will encourage the creation of new businesses and jobs. Improvements to existing infrastructure are therefore key to the delivery of the Hereford Enterprise Zone (HEZ).

The aim of the South Wye Transport Package is to facilitate the development of these objectives and unlock barriers to their success within the South Wye area.

EXISTING CONDITIONS AND PROBLEMS

Information on the existing transport conditions and problems within the South Wye area have been collected from a number of sources over the course of the study. These have identified the following:

- Large volume of traffic on the A465 and A49 causes severance within the community. People are reluctant to walk or cycle to services such as The Oval as they have to cross the A465 with the associated reduction in the perceived level of safety;
- High proportion of short distance trips being made by car which leads to less physical activity and obesity;
- Long journey times and unreliable service for public transport users as the services get stuck in queues of traffic;
- High levels of heavy goods vehicles make the road noisy and intimidating;
- Traffic congestion inhibiting further development of the Herefordshire Enterprise Zone (HEZ) and additional housing developments within the city;
- Large number of shunt type accidents as well as a number of other types of accident;
- Poor public transport links to rural areas, owing to high congestion on key routes;
- Low level of resilience in network to blockages on the River Wye crossing;
- Poor air quality resulting in an Air Quality Management Area along the A49 from the junction of the A465 junction into Hereford; and
- Worsening areas of social deprivation within the Belmont area.



Traffic congestion along A465



Congestion causes rat running through rural communities



Poor pedestrian crossing facilities along A465



Traffic congestion on approach to A465/A49 junction

Future Problems

If nothing is done, traffic flows on the A465 are forecast to increase over time as a result of the economic growth. We can therefore expect increased congestion along the A465 with the following consequences:

- Further severance within the community due to greater levels of traffic;
- Lower accessibility to public transport and the use of roads for walking/cycling resulting in less physical activity and higher levels of obesity and health;
- Longer public transport journey times due to buses being stuck in greater queues;
- Increase in heavy good vehicles creating more noise, air pollutants and further reduction in perceived pedestrian and cyclist safety;
- Reduced network resilience as greater traffic flow is constrained to two routes; and
- Further social deprivation as a result of constrained economic and housing development.

OBJECTIVES

The Marches LEP has identified Hereford as an Urban Powerhouse which will play a vital part in the accelerated growth for the LEP area. To enable this development, including land at the HEZ, will require the unlocking of land for both housing and employment growth. This is currently being constrained by the high levels of congestion across the city.

Herefordshire Council's emerging Core Strategy also aims to promote social progress, economic prosperity and environmental quality through regeneration, supporting strong communities whilst protecting and enhancing the county's environmental assets.

The Local Transport Plan outlines the strategy to support the economic growth and social inclusion within the county by providing an efficient transport network and improving accessibility to services.

Specific problems identified within the South Wye area have predominantly been caused by the level of congestion along the A465. This has resulted in poor levels of air quality, noise, and public transport usage which have resulted in large numbers of short distance trips being made by car. This in turn has led to less physical activity resulting in increased levels of obesity and greater health problems. These problems are then expected to increase if no action is taken.









The aim of the South Wye Transport Package is to promote the council's aspirations for Hereford and the wider region while tackling the specific problems identified within the South Wye area. Specific objectives have been identified for the study to provide key aims against which the different elements can be assessed.

These are:

- **Economic:**
  - *Reduce congestion and delay; and*
  - *Enable access, particularly to developments such as the HEZ*
- **Environmental:**
  - *Reduce the growth in emissions such as CO2, NOx and PM10s; and*
  - *Reduce traffic noise*
- **Health:**
  - *Encourage physical activity; and*
  - *Reduce accidents.*

SOUTH WYE TRANSPORT PACKAGE

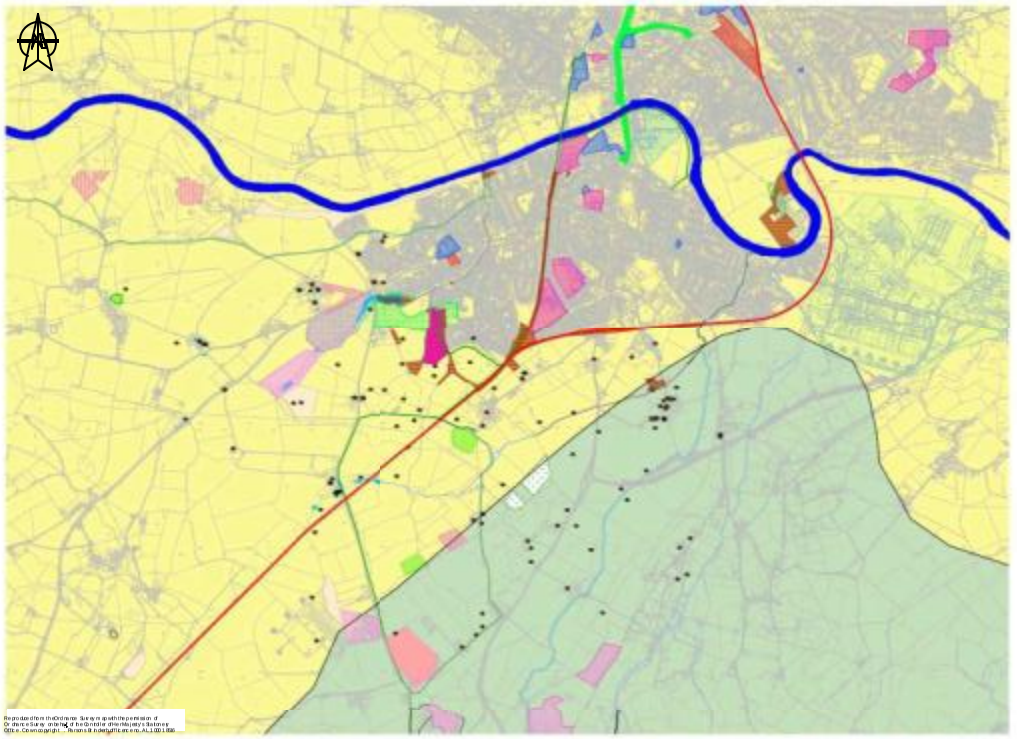
CONSTRAINTS PLAN

Constraints

The South Wye area is densely urbanised, criss-crossed by the heavily trafficked A465 and A49, whilst the South Wales to Hereford railway line dissects the study area. The existing highway has a number of services that run underneath, such as water, gas, electricity, and telecommunications. The A465 and A49 both have properties and businesses with direct frontages onto the highway, and over the northern section of the A465 there is on street parking.

The southern section is rural in nature and contains wooded areas, including the ancient woodland of Newton Coppice. The area also includes a number of ponds which have the potential to be inhabited by Great Crested Newts. 66kV overhead power lines run east to west across the area, whilst a trunk water main, a sewer and a high pressure gas main are also present.

A full illustration of the constraints within the study are summarised on the plan on this board.



KEY

- WOODLAND
- BELMONT HAYWOOD PARK (JUBILEE PARK)
- SPECIAL WILDLIFE SITE (SWS)
- BIODIVERSITY ACTION PLAN PRIORITY HABITAT
- LOCAL NATURE RESERVE (LNR)
- RIVER (WITH FLOW DIRECTION)
- SITE OF ARCHAEOLOGICAL IMPORTANCE
- SITE OF ARCHAEOLOGICAL IMPORTANCE
- LISTED BUILDING
- NATIONAL CYCLE NETWORK
- ROTHERWAS INDUSTRIAL ESTATE
- PUBLIC LEISURE CENTRE
- SITE OF IMPORTANCE FOR NATURE CONSERVATION (SINC)
- ANCIENT WOODLAND
- SITE OF SPECIAL SCIENTIFIC INTEREST
- SPECIAL AREA OF CONSERVATION
- POND
- HEREFORDSHIRE LOWLANDS
- SOUTH HEREFORDSHIRE AND OVER SEVERN
- AQMA BOUNDARIES
- SUPERMARKET
- SCHOOL
- MEDICAL CENTRE
- RAILWAY LINE

Balfour Beatty Living Places

In partnership with Herefordshire Council

PARSONS BRINCKERHOFF

Potential Package Approaches

Working within the constraints of the South Wye area we have identified a number of possible elements that could address the problems and objectives of the study. These elements cover many different transportation modes, strategies and interventions, some of which are complimentary or others that provide alternatives. The elements have been grouped into three key approaches which are:

Traffic Max - This approach aims to generate maximum capacity for vehicles within the South Wye area by improving existing junctions or roads.

Sustainable Transport Max - This approach aims to reduce the use of the private car through improvements to public transport, cycle routes and lanes, pedestrian crossings, traffic management, behavioural change activities and small localised improvements.

New Southern Link Road - This approach aims to generate additional capacity with new infrastructure to the south of Hereford to improve existing connections between the A465, A49 and the Rotherwas Estate.

The detail of these elements is now discussed in further detail.



Photomontage illustrating a tree lined boulevard along the A465 at the Great Western Way Overbridge.



Photomontage illustrating segregated cycleway along the A465 at the Great Western Way Overbridge.

Traffic Max Elements

These elements aim to reduce the amount of congestion along the A465.

- Widening of existing A465 to accommodate two lanes in each direction. This element does not reduce the level of traffic, and does not have a significant impact upon the level of congestion. Therefore maintains the level of noise and air quality problems while increasing severance due to the widened highway within the Belmont area.
- Grade separation of the A49/A465 junction. This element would be prohibitively costly and would have significant environmental implications due to the proximity of local properties and the River Wye Special Area of Conservation.
- Removal of traffic signals from the A49/A465 junction and remodelling of junction. This element would have substantial safety implications for both vehicles and pedestrians. The level of congestion would also be expected to increase as a result therefore maintaining the poor levels of noise and air quality.

These elements do not provide sufficient capacity to enable access to new developments such as the HEZ and the encouragement of physical activity by all ages.

Offline New Road Element

A new single carriageway road connecting the B4349, the A465 and the A49. This element is discussed in greater detail on later exhibition boards.

SOUTH WYE TRANSPORT PACKAGE

SUSTAINABLE PACKAGE ELEMENTS

The sustainable transport elements are centred within the Belmont and Holme Lacy Road areas and aim to reduce severance, promote physical activity through the use of walking and cycling for shorter distance trips, reduce accidents by reducing conflicts between pedestrians and vehicles, and reduce congestion through modal shift. Additionally there is a complementary behavioural change element, aimed at maximising awareness to encourage and support use of the improved sustainable travel offer. The example elements that could be developed are:

Bus Priority

- In-bound bus lane between the A465/Abbotsmead Road (Tesco) roundabout and the A49, and bus priority scheme from Hoarwithy Road to the A49 to improve public transport journey times.

Cycling

- In-bound and outbound cycle lanes between the A465/Abbotsmead Road (Tesco) roundabout and the A49 to promote cycle use along the A465;
- Residential cycle schemes including improved access to the Great Western Way from Ethelstan Crescent and Brampton Road,
- Segregated cycle route alongside Marlbrook Road, improved cycle provision on Walnut Tree Avenue, improving links between Belmont and the Enterprise Zone,
- Cycling contraflows on the road adjacent to The Oval and Springfield Avenue and;
- Cycle infrastructure improvements to provide off-road provision, and cycle routes on the remainder of Holme Lacy Road, cycle provision on Hoarwithy Road, conversion of Hinton Road pelican crossing to a toucan crossing, and further Connect 2 connections.



Photomontage illustrating a northbound bus lane on the A465 at junction of Beattie Avenue



Photomontage illustrating a northbound bus lane on the A465 looking south from Great Western Way

Walking

- An improved pedestrian crossing of Belmont Road between Ruckhall Lane and Haywood Lane, and at the A465/Abbotsmead Road (Tesco) roundabout. The aim is to promote more sustainable shorter distance trips through the reduction of severance by making it easier to cross the A465;
- Improvements to the pedestrian environment along Holme Lacy Road to encourage walking including improved crossings, to help improve the local walking environment;
- New crossing on Walnut Tree Avenue and Belmont Road, with signalisation of the junction to increase safe crossing opportunities of the A465 and;
- Kerb build outs and narrowing of residential streets would help improve local conditions for pedestrians;

Safety

- Possible extension of 20mph zones.

Behavioural Change

- Personalised Travel Planning programme for Belmont and the Holme Lacy Road areas, which could be used to make residents aware of transport improvements in the area and encourage more sustainable travel.

Townscape

- Removal of central hatching along the A465 and the introduction of a tree line boulevard along the A465 to improve the townscape character and encourage greater walking and cycling.

Package of Measures Assessment

To assess the success of the potential package approaches a high level qualitative assessment has been undertaken on them, and is summarised within the table on this board. The table also illustrates the assessment of combining the 'Sustainable Transport Max' approach with the 'New Southern Link Road'.

The assessment illustrates that all three approaches do not satisfy all of the study objectives in isolation. The 'Traffic Max' approach does not provide substantial benefit within the South Wye area nor does it satisfy any of the study objectives. Therefore this approach has not been deemed feasible and did not undergo further assessment

The 'Sustainable Max' and the 'New Southern Link Road' contribute to the delivery of the study objectives but do not satisfy all of the objectives in isolation. Therefore the recommendation for the South Wye Transport Package is to combine the 'New Southern Link Road' with elements of the 'Sustainable Transport Max' approach.

KEY

- Does not meet objectives
- Partially meets objectives
- Fully meets objectives

Objectives		Package Approach			
		Traffic Max	Sustainable Transport Max	New Southern Link Road (SLR)	Sustainable Transport Max & New Southern Link Road (SLR)
Economic	Reduce congestion and delay	Traffic along A465 not reduced, therefore no impact upon delay but a reduction in the level of congestion.	Modal shift reduces some existing congestion and delay.	Traffic diverts to use new road and therefore reduces traffic, congestion and delay along the A465.	Modal shift and diversion of traffic onto the new SLR reduces congestion and delay along the A465.
	Enable access, particularly to developments such as the HEZ	Does not provide any new additional links to developments.	Modal shift increases the capacity of some existing linkages into the HEZ but does not unlock the barrier of further development.	Unlocks the barrier to further development of the HEZ.	Unlocks the barrier to further development of the HEZ.
Environmental	Reduce the growth in emissions such as CO2, NOx and PM10s	Does not change the exising traffic flow profile along the A465 so no change.	Modal shift will reduce the growth of emmissions along the A465 and Holme Lacy Road.	Reduction of traffic along the A465 as a result of the new SLR, therefore reducing growth of emissions along the corridor. Some increases of emissions along the A49 and for properties along proposed route corridor.	Reduction of traffic as a result of modal shift and traffic diverting to the new SLR has an overall benefit in reducing the growth in emissions.
	Reduce traffic noise	Does not change the exising traffic flow profile along the A465 so no change.	Modal shift will reduce the amount of traffic noise along the A465 and Holme Lacy Road.	Reduction of traffic along the A465 as a result of the new SLR, therefore reduces traffic noise along the corridor. Some increase in traffic noise for properties along the A49 and the proposed route corridor.	Reduction of traffic as a result of modal shift and traffic diverting to the new SLR has an overall benefit in reducing traffic noise.
Health	Encourage physical activity	Increased severance as a result of widened road would therefore discourage physical activity. May also require the loss of footwars along the A465.	Measures designed to promote increased physical activity.	Reduction of traffic along A465 would lower the perceived severance along the corridor, therefore slightly encouraging physical activity within Belmont.	Measures designed to promote increased physical activity and further benefit along A465 corridor as traffic diverted to new SLR.
	Reduce accidents	Potential reduction in accidents as traffic now displaced over greater area.	Modal shift would will reduce the amount of conflict between vehicles and other modes.	Traffic diverts to new SLR which is built to current design standards. Therefore expected reduction in vehicle accidents.	Traffic diverts to new SLR which is built to current design standards. Therefore expected reduction in vehicle accidents and further modal shift reduces the amount of conflict between vehicles and other modes.

SOUTH WYE TRANSPORT PACKAGE

SUSTAINABLE TRANSPORT OPTION

Sustainable Transport Max Option

The high level qualitative assessment on the previous board illustrated that the provision of the Sustainable Transport Max approach provides sufficient benefits to the study objectives to be considered with all New Southern Link Road options.

The scheme shown schematically on this board indicates the potential elements that could be used in a preferred Sustainable Transport Max option. The scheme includes the inbound bus lane along the A465 as further appraisal has indicated that the element offers the greatest economic benefits, including time savings and greater service reliability for bus users. The bus lane could also be used by bicycles, and improvements to crossing facilities on the A465 will offset any adverse severance impacts due to the widening of the carriageway. The bus lane would require the removal of some residents parking on the A465

The scheme will also be complimented with a Personalised Travel Planning programme for both the Belmont and Holme Lacy Road areas.

KEY

- Proposed Bus & Cycle Way
- Proposed Cycle Way
- A Road
- Pedestrian/cycle crossing Improvement
- Junction improvement
- Existing Cycle Way to be improved
- Rotherwas Industrial Estate





Photomontage illustrating a Northbound bus lane on the A465 at the Great Western Way bridge.



Photomontage illustrating the Westbound bus lane along Holme Lacy Road

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SOUTHERN LINK ROAD OPTIONS

Southern Link Road

The Southern Link Road involves the construction of a new section of road between the A49 Ross Road/Rotherwas Access Road roundabout to the A465 and the B4349 Clehonger Road. A link to Clehonger Road has been included to overcome the current poor visibility of the existing junction with the A465. In total eight options have been developed which are summarised below.

Route Option SC1 - involves the construction of a new roundabout on the A465/B4349 Clehonger Road junction. The road passes through the centre of Grafton Wood and continues westwards over Grafton Lane and Withy Brook, north-west around Merry Hill/Beech Grove and under Haywood Lane, before heading straight to the A465.

Route Option SC2 - involves the construction of a new roundabout on the A465/B4349 Clehonger Road junction. The road passes through the centre of Grafton Wood and continues westwards over Grafton Lane and Withy Brook. Thereafter, it straightens up immediately heading in a north-west direction to the A465.

Route Option SC2A - The alignment is identical to SC2, except that the new road section will pass underneath the railway line.

Route Option SC3 - From the existing A49 roundabout, this option heads north-west to the A465 terminating south-west of the A465/Clehonger Road junction. It crosses a dense wooded area between Grafton Lane and Withy Brook, before crossing underneath the railway line and Merryhill Lane.



Route Option SC4 - follows the same eastern alignment as Option SC3 until Newton Brook, where it curves to the north-west before intersecting the A465 in roughly the same location as Option SC1.

Route Option SC5 - passes through the northern part of Grafton Wood and in a north-westerly direction, crosses the densely wooded area between Grafton Lane and Withy Brook and a site of archaeological importance before turning west to cross underneath the railway line. The route continues through Merry Hill and under Haywood Lane towards the A465.

Route Option SC6 - This option passes to the north of Grafton Wood. It then heads in a north-westerly direction to pass under the railway, across Merryhill Lane before curving around Merry Hill and under Haywood Lane. It crosses Newton Brook between Newton Coppice and Hayleasow Wood. A new link to connect with the B4349 Clehonger Road is located further south-west of the new roundabout.

Route Option SC7 - passes through the northern tip of Grafton Wood but avoids the southern extent of the dense wooded area between Grafton Lane and Withy Brook. It then runs to the south of Merryhill Lane before cutting through Merry Hill and under Haywood Lane. From this location the road heads in a westerly direction to the A465.

All of these options would include a weight restriction on the A465 at the bridge of the Great Western Way, with supporting signage at either end of Belmont Road.

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Option Refinement

Since Autumn 2013, further detailed work and appraisal has been undertaken on the Southern Link Road options outlined on the previous board. During the appraisal process, we carefully consider all the impacts - positive and negative. This enables the council to make an informed decision and this is done by considering the scheme against a standard set of criteria, set out by the Department for Transport.

We consider the impact on the environment and on local communities as well as the safety and journey time benefits of the scheme. The cost of the scheme is also considered so we can make sure we deliver good value for money.

The results of the initial analysis and the appraisal of these options have shown that four of these options do not represent feasible solutions to the transportation problems. These routes have been identified as affecting the ancient woodland of Newton Coppice. The National Planning Policy Framework now identifies ancient woodland as an irreplaceable habitat which is unlikely to be fully mitigated. There are also clear alternatives to avoid this significant environmental constraint.

The summary of the appraisal of these four options is shown in the table on this board.

If you would like more explanation as to why these options have been discarded, please ask a member of staff who will be happy to help.

Appraisal Summary Table

Appraisal Criteria	SC1	SC3	SC4	SC6
ECONOMY				
Business users & transport providers	1	1	1	1
Reliability impact on Business users	1	1	1	1
Regeneration	3	3	3	3
Wider Impacts	2	2	2	2
ENVIRONMENT				
Noise	-3	-3	-3	-3
Air Quality (LOCAL)	-2	-2	-2	-2
Greenhouse gases	-1	-1	-1	-1
Landscape/Townscape	-2	-3	-3	-2
Historic Environment	-1.5	-1.5	-1.5	-1.5
Biodiversity	-3	-3	-3	-3
Water Environment	-1	-1	-1	-1
SOCIAL				
Commuting and Other users	1	1	1	1
Reliability impact on Commuting and Other users	1	1	1	1
Physical activity	-2	-2	-2	-2
Journey quality	2	2	1	1
Accidents	0	0	0	0
Security	1	1	1	1
Access to services	0	0	0	0
Affordability	1	1	1	1
Severance	1	1	1	1
Option and non-use values	0	0	0	0
PUBLIC ACCOUNTS				
Cost to Broad Transport Budget	1	1	1	1
Indirect Tax Revenues	0	0	0	0
Total	**-0.5**	**-1.5**	**-2.5**	**-1.5**

The scores are made up of criteria under the main headings of Economy, Environment, Social and Public Accounts. The Range for the scores is from -3 (Major Adverse), to 0 (Neutral), to +3 (Major Beneficial).

Option Appraisal Summary

Route Option SC1

This option would have negative impacts on the environment. This would include a significant increase in road traffic noise for local properties, plus cause deterioration in air quality in some local routes. This option would also have a major impact on biodiversity, including loss of habitats.

Route Option SC3

This option would have negative impacts on the environment. This would include a significant increase in road traffic noise for local properties, plus cause the deterioration in air quality in some local routes. This option would result in severe damage to key characteristics, including ancient woodland and an area of archaeological importance.

Route Option SC4

This option would have negative impacts on the environment. This would include a significant increase in road traffic noise for local properties, plus cause the deterioration in air quality in some local routes. This option would have the most severe impact on the landscape and biodiversity, as it has the greatest effect on Newton Coppice and Belmont Park due to the alignment at its western end.

Route Option SC6

This option would have negative impacts on the environment. This would include a significant increase in road traffic noise for local properties, plus cause the deterioration in air quality in some local routes. This option would have a moderate impact on the landscape, and a major impact on biodiversity, including woodland habitats.

SOUTH WYE TRANSPORT PACKAGE

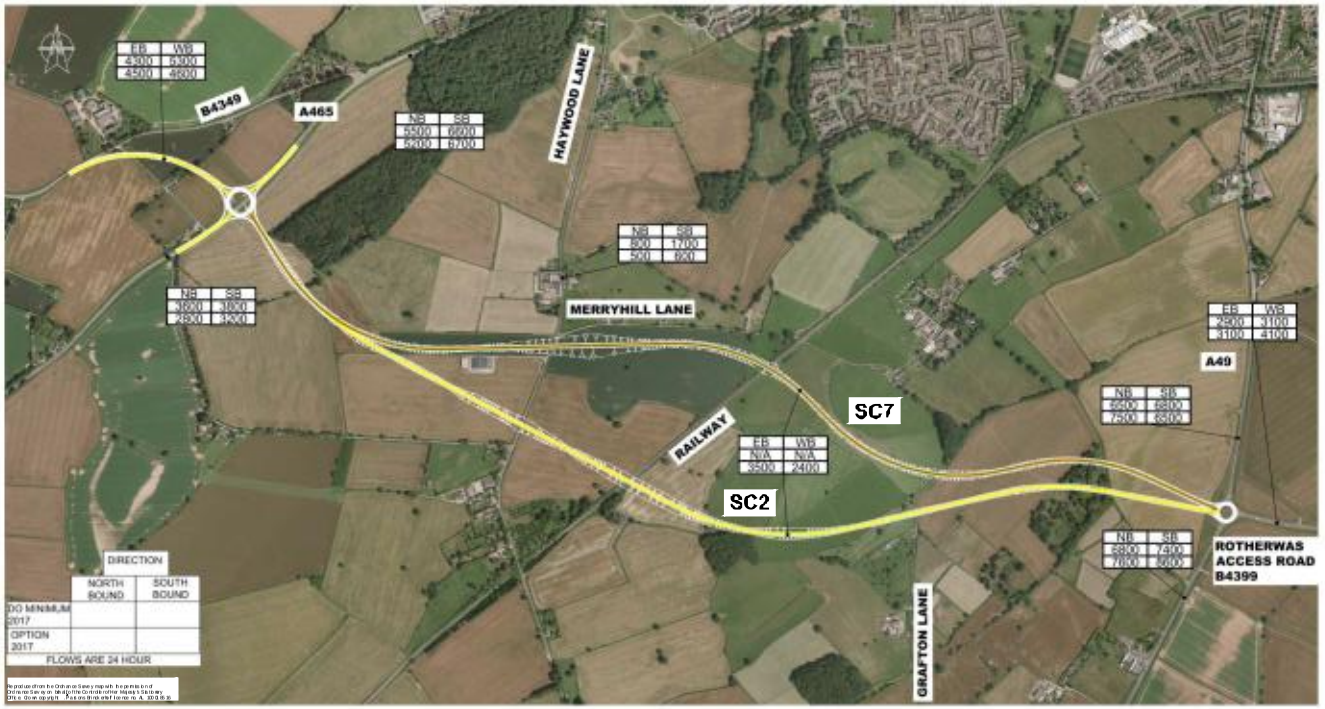
SOUTHERN LINK ROAD
SC2 AND SC7



Photomontage showing Southern Link Road going over the railway line and under Haywood Lane looking north



Photomontage looking West, showing Southern Link Road going under both the railway line and Haywood Lane looking west



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SOUTH WYE TRANSPORT PACKAGE

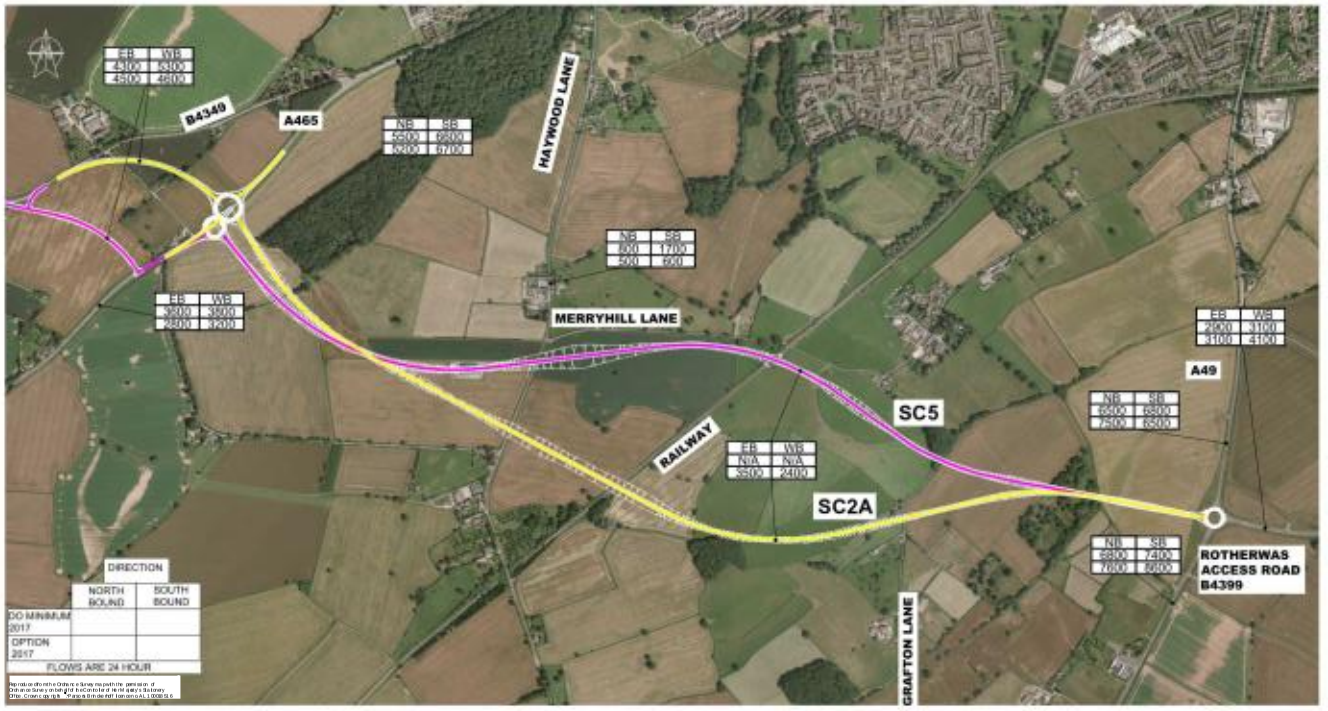
SOUTHERN ROAD OPTIONS SC2A AND SC5



Photomontage showing Southern Link Road going under the railway line and Haywood Lane looking north



Photomontage looking west showing the junction of the Southern Link Road and the A465, with the Clehonger Link



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Results of Appraisal

The same appraisal process undertaken during the option refinement process has been completed on the four remaining feasible options and Sustainable Max.

The summary of the appraisal of these options is shown in the table on this board.

The results of the appraisal show that all of the options provide many benefits to the economy by unlocking barriers to the development of the Hereford Enterprise Zone, and further housing development. They all reduce congestion and improve journey times. There are negative impacts to the environment, as a result of increasing road traffic noise, reducing air quality and impacts to the landscape.

Option Appraisal Summary

Route Option SC2

This option has many benefits to the economy, such as reducing congestion and improving journey times, as well as enhanced accessibility to employment opportunities in the HEZ. There are also some negative impacts to the environment, as a result of increasing road traffic noise, reducing air quality, but limiting the impact on woodland.

Appraisal Summary Table

Appraisal Criteria	SC2	SC2A	SC5	SC7
ECONOMY				
Business users & transport providers	1	1	1	1
Reliability impact on Business users	1	1	1	1
Regeneration	3	3	3	3
Wider Impacts	2	2	2	2
ENVIRONMENT				
Noise	-3	-3	-3	-3
Air Quality (LOCAL)	-2	-2	-2	-2
Greenhouse gases	-1	-1	-1	-1
Landscape/Townscape	-2	-2	-3	-2
Historic Environment	-1.5	-1.5	-1.5	-1.5
Biodiversity	-2	-2	-2	-1.5
Water Environment	-1	-1	-1	-1
SOCIAL				
Commuting and Other users	1	1	1	1
Reliability impact on Commuting and Other users	1	1	1	1
Physical activity	-2	-2	-2	-2
Journey quality	2	2	1	1
Accidents	2	2	2	2
Security	2	2	2	2
Access to services	2	2	2	2
Affordability	1	1	1	1
Severance	1	1	1	1
Option and non-use values	0	0	0	0
PUBLIC ACCOUNTS				
Cost to Broad Transport Budget	2	1	0	0
Indirect Tax Revenues	0	0	0	0
Total	**6.5**	**5.5**	**2.5**	**4**

The scores are made up of criteria under the main headings of Economy, Environment, Social and Public Accounts. The Range for the scores is from -3 (Major Adverse), to 0 (Neutral), to +3 (Major Beneficial).

Route Option SC2A

As with Option SC2, this option has many social and economic benefits to the economy, with a reduction in congestion, improvements to journey times, and an increase in accessibility to employment. Although there are still negative impacts to the environment.

Route Option SC5

This option has many benefits to the economy, and society as a whole. It will reduce congestion and improve journey times, as well as enhance accessibility to employment opportunities. There are some negative impacts to the environment, as a result of increasing road traffic noise, reducing air quality, and a significant impact to the landscape.

Route Option SC7

This option has many benefits, for instance reducing congestion and improving journey reliability, as well as enhanced accessibility to employment. This option has minimal impact on biodiversity and habitats. There are some negative impacts to the environment, such as increasing road traffic noise and reducing air quality. Due to the alignment the road would be subject to a 50mph speed limit.

The resultant appraisal has therefore highlighted that **option SC2 is the best performing option for New Southern Link Road.**

SOUTH WYE TRANSPORT PACKAGE

YOUR VIEWS

Thank you for coming to this Public Consultation Exhibition

How can you help?

You can give your views on the options by returning the questionnaire by 8 August 2014.

We recommend that you direct your questions to the staff at the exhibition. Representatives from Herefordshire Council and their consultants Balfour Beatty Living Places and Parsons Brinckerhoff are available to answer your questions and to explain the options in more detail.

What happens next?

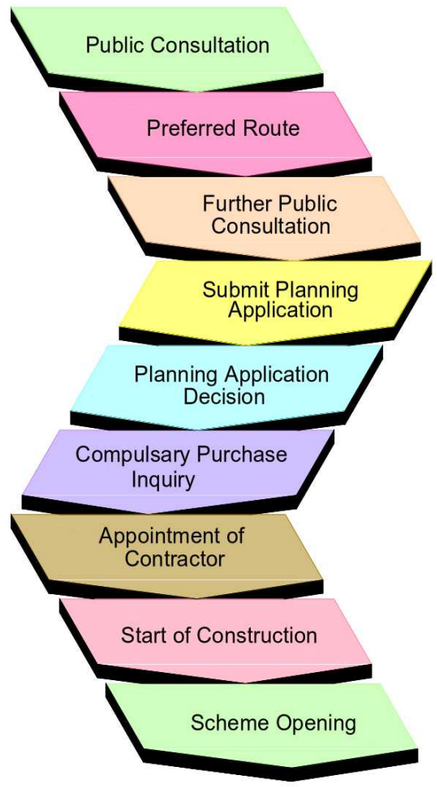
Completed questionnaires and any other comments received in response to this Public Consultation will be considered carefully by Herefordshire Council, Balfour Beatty Living Places and Parsons Brinckerhoff. A decision on a preferred route for the Southern Link Road will be made in early Autumn.

How to respond and to make an enquiry

Contact Herefordshire Council with your feedback or queries by:

- Attending one of the Public Exhibitions at the Three Counties Hotel
- Returning the questionnaire in the prepaid envelope or to the Freepost address
- Writing to FREEPOST: RTHL-BBZH-JATH, Balfour Beatty Living Places, Unit 3, Thorn Business Park, Rotherwas, HEREFORD HR2 6JT

The Procedure Outlined



Access to information

Herefordshire Council will use the questionnaires and any further information from the public to provide evidence for developing ways to improve transport in the South Wye area. The questionnaire will be disposed of securely after it has served these purposes. A summary of the responses to the consultation will be published. A list comprising of names and postal towns (e.g. Mr A N Other, Hereford) of those who have responded will be included. If you do not wish to be identified, even as in the proposed example, you will need to advise us by including a note in your response or by ticking the box on the questionnaire.

Herefordshire Council is subject to the Freedom of Information Act 2000, (FoI) and Environmental Information Regulations (EIRs) which means that this questionnaire may be released in response to a request for information. However, all personal data on your form will be treated in line with our obligations under the Data Protection Act, 1998.

The brochure and supporting documentation is available in alternative formats on request.

Please visit www.herefordshire.gov.uk/south-wye-transport-package for all of the up to date information on the South Wye Transport Package. You can also join us on Facebook at www.facebook.com/HfdsCouncil and Twitter @HfdsCouncil.

Thank you for your time

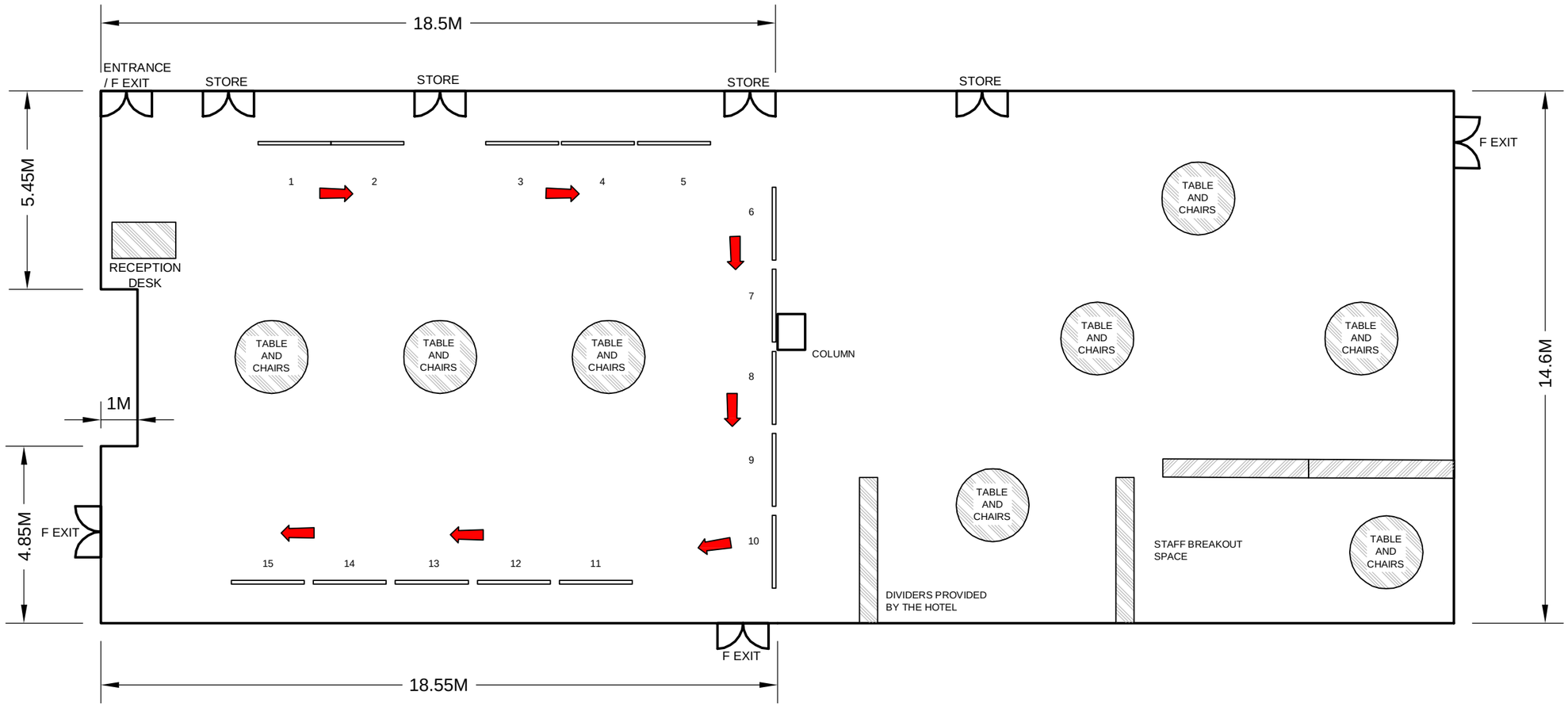
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Appendix E

Layout of Exhibition Panels



NOTES

1. THIS IS A C.A.D. DRAWING AND SHOULD NOT BE AMENDED BY HAND.
2. ALL DIMENSIONS IN METRES UNLESS OTHERWISE STATED.

Rev	Date	Description	By	Chk	App

DRAFT

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Tel: 44-(0)29-2082-7000
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Client: Herefordshire Council

Site/Project: SWTP SOUTHERN LINK ROAD

Title: EXHIBITION PANEL LAYOUT PLAN

Drawn: GS		Checked:	
Designed: CN		Approved:	
Date: 23/06/2014	Scale: 1:200 A3	Sheet: 1 OF 1	
Project Number:	Drawing Number:	Revision:	
3512983B-HHR	002	-	

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Project Number: 3512983B-HHR
Drawing Number: 002
Revision: -

Login: Smith, Geraint
Plot Date: 26/06/2014 13:05:58
File Name: H:\HHI\JOBS\3512983A-HHR Hereford\Task - South Wye Transport Package SWTP\Southern Link Road (SLR)\Acad\Drawings\3512983B-HHR\3512983B-HHR_002.dwg

577

Appendix F

Question 7: Full Breakdown

Total	Issue
26	Support for an alternative bypass of Hereford N-S
17	In support of sustainable transport package
15	In support of SC2A as it affects least people and has the least impact on environment
13	In support of SC2 as it affects least people and has the least impact on environment
12	Do not support bus lanes along the A465
12	Concerned about the cost
10	Support the SLR
9	Do not support a SLR as they do not believe it will work
8	Improvements to Asda roundabout
7	Support for cycle lanes along the A465
6	Congestion on the A465 including parked cars
6	Support for bus lanes along the A465
6	Support for tidal flow lanes along the A465
5	Support park and ride facilities
5	Remove school traffic
5	Impact upon the environment
4	Improvements to footways from Clehonger
4	Improvements to rail infrastructure including new station
4	Unpredictability of journey times
4	In support of SC7 as it affects least people and is the historically planned route
3	Oppose SC2 due to the impact upon the environment
3	Oppose SC5 due to the impact upon the community
3	Oppose SC7 due to the impact upon the community
3	Criticism of panels not showing current sustainable transport infrastructure
3	Lack of awareness of consultation
2	Relieve congestion on the A49
2	Improve the traffic signals city wide
2	Support weight restrictions along the A465
2	Do not support weight restictions along the A465
2	Do not support the SLR
2	Lack of highway maintenance
2	Criticised questionnaire design
2	Want a new route alignment
1	Support for traffic max
1	Support for cycle lanes along Holme Lacy Road
1	Do not support additional park and ride facilities
1	Impact on rural farming
1	Improve Madley/Bridge Sollars road
1	Redirect traffic into Madley

1	Do not support the Clehonger Link
1	Wanted a weekend exhibition
1	Wanted a different exhibition venue
1	Do not rush a decision

Appendix R – Communication and Engagement Plan

Back the Bypass: Unblock, Unlock, Unleash Herefordshire's Future

Hereford Bypass/Western Growth Corridor
Communications and Engagement Plan 2025/26

Introduction

This plan sets out how strategic communications and engagement can support the successful delivery of the Hereford Bypass and realisation of the Western Growth Corridor.

A targeted campaign approach is essential to ensure the Hereford Bypass Communications and Engagement Plan reaches and resonates with the diverse range of stakeholders affected by or influential to the project. Given the complexity and scale of the bypass, a one-size-fits-all strategy would risk diluting key messages and missing critical engagement opportunities. By segmenting audiences - such as residents in impacted areas, strategic decision-makers, environmental groups and potential investors - the campaign can tailor messaging, channels and tactics to address specific concerns, motivations and levels of influence.

This approach will help build trust, secure support and drive advocacy, while also enabling the Council to respond swiftly and effectively to opposition or misinformation. Ultimately, a targeted campaign ensures communications are not only heard but acted upon, supporting the successful delivery of both Phase 1 and the wider growth corridor vision.

Communications and engagement objectives

This plan supports the project's overarching objectives, as follows:

- Secure local support from residents, businesses, stakeholders and investors about Phase 1 construction and benefits, through better informing them and responding to and assuaging their concerns.
- Secure grant funding alternative for financing Phase 1, through lobbying and engagement with strategic stakeholders and decision-makers.
- Generate county-wide, stakeholder and political support for Phase 2, including RIS 4 and other potential funding streams, by setting out and amplifying a compelling case for investment[1].
- Attract inward investment for housing, employment land and infrastructure, through national, international and sector-specific marketing.
- Build a coalition of advocates to back the bypass campaign by amplifying campaign messages across all platforms.

[1] Given the scale and nature of the project, it is likely that Phase 2 will require a blended funding approach, drawing from a variety of sources. The business case should reflect this, rather than relying solely on RIS 4 inclusion

Core narrative

A consistent and compelling message is critical. The following is the emerging "top line" narrative.

> *"The long-awaited Hereford bypass is more than just a road - it's a transformative opportunity to reshape the city, county and region for generations to come. At its heart lies a bold ambition: to unblock congestion in Hereford city, improving journey times and reducing disruption; unlock growth by enabling up to 14,000 new homes, 150 hectares of employment land and thousands of jobs; unleash potential by enhancing regional connectivity, supporting regeneration and improving quality of life."*

See **Annex A: Hereford Bypass narrative** for full version.

Audiences, stakeholders and decision-makers

[redacted]

See **Annex B: Strategic stakeholders and decision-makers table** for the emerging list.

Local stakeholders and audiences

The table (at annex C) sets out key regional and local stakeholders and audiences. Further insight is required to measure and confirm audience attitudes to the bypass, to tailor engagement, including:

[redacted]

See **Annex C: Regional and local stakeholders and audiences table** for the emerging list.

Implementation

As we further develop the plan and map stakeholders, we will adopt a phased approach of implementation. This will start with preparation and pre-campaign activity and will then follow the key milestones of the project.

Preparation (2025)

- Finalise and secure approval on campaign name, narrative and call to action
- Develop a brand identity, “look and feel” and guidelines for the campaign
- Develop campaign website and social media channels
- Create compelling content, including:
    - videos and images
    - interactive maps and fly-throughs
    - infographics
    - core scripts, FAQs and myth-busting explainers
    - events banners
    - brochures and factsheets
    - letters and articles
    - business cards
    - pledge platform and supporter toolkit
    - merchandise, such as pin badges, pens, mugs (TBC)
- Create a supporter network – bringing together people and orgs who support the bypass
- Private briefings with MPs, Group Leaders and other key stakeholders (December)

Phase 1: Southern Link Road (2025–2026)

Some of the key actions will include:

- Announce phase 1 construction contract tender process opening (late October)
- Further strategic engagement and lobbing on financing
- Set-piece media moment – article and/or interview with local media
- Stakeholder roundtables with resident groups, businesses and landowners
- Parish councils engagement
- Community town halls and drop-in sessions

- Run targeted social media campaign to inform residents in phase 1 areas updated and keep them supportive
- Host online community forums and/or Q&As
- Call for sites event for phase 2 (4 December)
- Infrastructure Projects update announcement (December - TBC)

Phase 2: Western Bypass (2026+)

A full implementation plan will be developed, and will include:

- Publish Strategic Outline Business Case with launch event
- Create film and suite of content to bring SOBC to life, showcasing benefits
- Launch “Back the Bypass” campaign
- Launch event for Case for Investment
- Website launch
- Stakeholder roundtables with businesses and landowners
- Distribute policy briefings to ministers, officials and MPs
- Deploy supporter network to lobby their MP
- Launch Full Business Case (June/July)
- Works begin on Phase 1 (December)

See **Annex D: Implementation actions** (Excel document) for owners and tracking progress.

Monitoring & Evaluation

- KPIs: Website traffic, social media engagement, pledges, endorsements.
- Tools: Surveys, sentiment analysis, analytics dashboards.
- Review Cycle: Quarterly, with adaptive messaging.

Further measures and a framework will be developed, including developing baseline and benchmarking data.

Budget and resourcing

A plan for budget and resourcing will be developed including allocation for communications activities, staff capacity and required skills.

In the meantime, a new Bypass Communications Group, chaired by the Service Director of Communications, has been established. Members include the Head of Communications, Digital Manager and Campaigns Manager, and will be augmented with other relevant officers. They will drive forward this plan, working to the project board and steering group.

This will require a whole of council approach, for example teams who “own” the relationship with key stakeholders should lead on delivery of bypass engagement using the messages and tools – and as part of a coordinated effort – under this plan. For example, Economy and Environment Directorate should lead engagement with the business sector stakeholders, while Talk Community will lead on engagement with Parish Councils, set out in annex B.

Governance and decision-making

We will clarify governance structure including:

- Roles and responsibilities
- Messaging sign-off protocols
- Escalation processes

Risk and Issues Management

[redacted]

Annex A: Hereford Bypass narrative

Back the bypass: unblock, unlock, unleash

The long-awaited Hereford bypass is more than just a road - it's a transformative opportunity to reshape the city, county and region for generations to come. At its heart lies a bold ambition: to unblock congestion, unlock growth and unleash the full potential of Herefordshire.

The Hereford Bypass promises to relieve the daily pressures of traffic in the city centre, improving journey times and reducing disruption for residents, businesses and visitors alike. But its impact goes far beyond smoother commutes. It is the key to unlocking up to 14,000 new homes, creating 150 hectares of employment land and enabling the growth of approximately 10,000 new jobs. This is not just infrastructure - it's a catalyst for regeneration, prosperity and opportunity.

Phase one is already in motion. With planning permission secured and land acquisition underway, construction is set to begin by December 2026. This £35 million investment is a cornerstone of the Council Plan and reflects a clear commitment to delivering local priorities that align with national ambitions to rebuild and accelerate infrastructure delivery.

Once complete, this first phase will connect vital industrial sites to the south of the city, removing longstanding barriers to economic development and setting the stage for the transformative second phase around the west of Hereford.

Phase two is likely to cost ten times more than phase one and will need to be financed through a blended funding model that reflects both the scale and strategic importance of the scheme. While inclusion in the Road Investment Strategy 4 (RIS4) remains a priority, the Council will also pursue complementary funding streams such as infrastructure grants and regeneration funds from the government, and potential public-private partnerships. Engagement with central government will be critical to securing multi-source investment. The Strategic Outline Business Case will set out this approach in detail, demonstrating value for money, alignment with national priorities and readiness to deliver.

The full realisation of the bypass as a Western Growth Corridor will bring sweeping benefits. It will energise the local economy by attracting inward investment and creating space for new industries. It will support housing delivery in line with national planning targets, and it will enhance resilience by offering a second crossing over the River Wye - reducing dependence on the A49 and strengthening the transport network.

Congestion relief will be tangible, especially around Greyfriars Bridge and key radial routes. Safety will improve, with fewer collisions in known hotspots. Travel choices will expand, supporting walking, cycling, public transport and driving. Connectivity will be enhanced across western routes, and bus services will become more reliable and attractive.

The bypass will also deliver broader social and environmental benefits. It will reduce delays, pollution, and accident-related costs, while supporting regeneration and placemaking in the city centre. It will help retain talent, improve housing mix, and foster social mobility. Public health will benefit from cleaner air and more active travel options. Communities will enjoy quieter, more cohesive neighbourhoods and heritage assets will be better protected from the impacts of traffic.

Enough of the waiting. Now is the time to act. We invite residents, businesses, investors, and stakeholders to Back the Bypass - to help us unblock congestion, unlock growth and unleash Herefordshire's future.

Annex B: Strategic stakeholders and decision-makers table

Organisation	Name	Role	Insight	Interest	Influence	Score	Relationship Owner
[redacted]							

Organisation	Name	Role	Insight	Interest	Influence	Score	Relationship Owner
[redacted]	[redacted]	[redacted]					
	[redacted]	[redacted]					
	[redacted]	[redacted]					
[redacted]	[redacted]	[redacted]		[redacted]	[redacted]		
	[redacted]	[redacted]		[redacted]	[redacted]		
		[redacted]					
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]		
	[redacted]	[redacted]	[redacted]				
[redacted]		[redacted]					

[Further stakeholders to be added]

Annex C: Regional and local stakeholders and audiences table

Group	Name	Role	Insight	Interest	Influence	Score	Relationship owner
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]		
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]		
	[redacted]	[redacted]	[redacted]				
[redacted]	[redacted]	[redacted]	[redacted]				
	[redacted]	[redacted]	[redacted]				
	[redacted]	[redacted]	[redacted]				
	[redacted]	[redacted]	[redacted]				

Group	Name	Role	Insight	Interest	Influence	Score	Relationship owner

Group	Name	Role	Insight	Interest	Influence	Score	Relationship owner
[redacted]	[redacted]			[redacted]	[redacted]		
	[redacted]						
[redacted]	[redacted]						
	[redacted]						
	[redacted]						
	[redacted]						

[Further audience groups to be added]

Appendix S – Benefits Management and Evaluation Plan

Hereford Western Bypass - Phase One

Benefits Management and Evaluation Plan

Herefordshire County Council

June 2026

Delivering a better world

Quality information

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Revision History

Revision	Revision date	Details	Authorised	Name	Position
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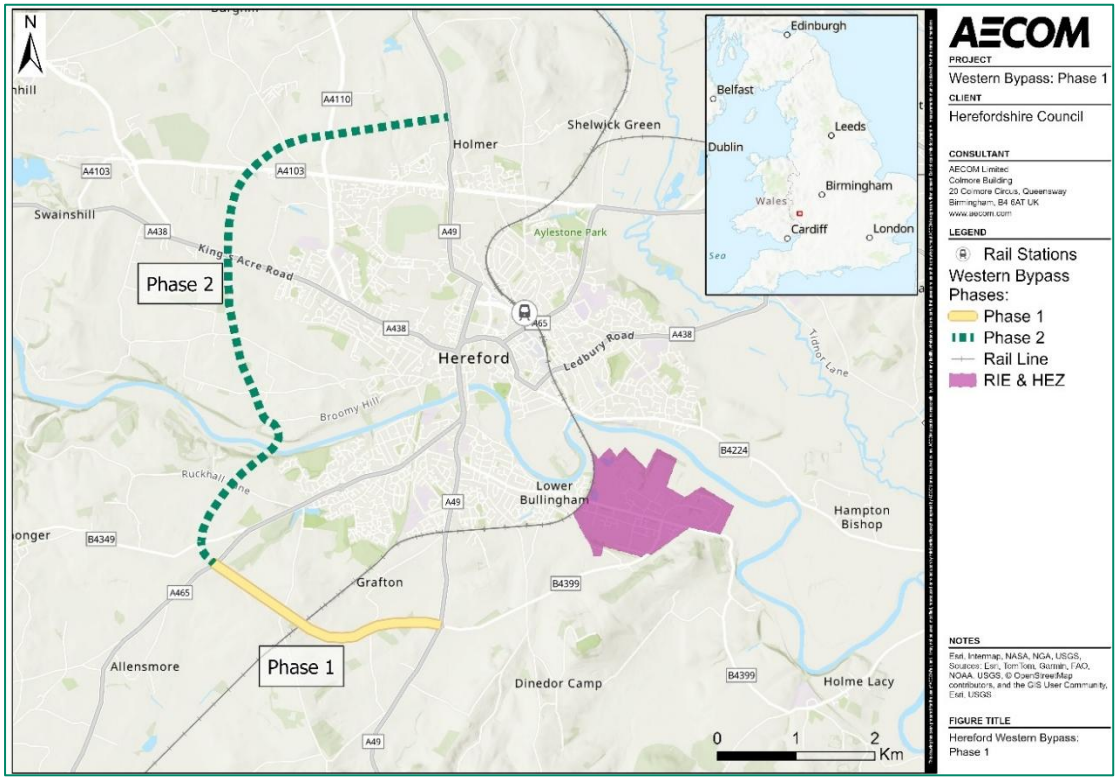
Executive Summary

Scheme Overview

Herefordshire Council are delivering the Hereford Western Bypass, made up of two distinct phases. Phase One forms the southern part of the route section, providing a 3km single carriageway between the A465 and A49, and a key link to Hereford Enterprise Zone and Rotherwas Industrial Estate. Full planning permission is in place for Phase One.

Phase 2 of the bypass is at a less-advanced stage and will connect with Phase One at the A465 junction, providing onward connectivity and routing to the west of the city centre, including a crossing on the River Wye via a viaduct structure, before connecting with the A49 to the north of the city. This BMEP focuses on Phase One and supports the Full Business Case submission.

Hereford Western Bypass



Scheme Objectives and Research Questions

The following 6 objectives have been identified for the scheme:

1) Provide a more direct and reliable route to the HEZ for all users form the south / southwest of Hereford with journey time savings of more than six minutes during the peak periods on the A465, following completion of the Phase One scheme.

2) Relieve residential route pressures in the South Wye area, particularly along the A465 Belmont Road, Holme Lacy Road and Walnut Tree Avenue, by reducing daily traffic flows by up to 25%, following completion of the scheme.

3) Improve road safety across the South Wye Area following completion of the scheme.

4) Reduce air quality and noise impacts from road transport on key receptors across South Wye, particularly in the residential Belmont area following completion of the scheme.

5) Support economic growth and business productivity in Hereford through increased inward investment and reduced travel time.

6) Improve social outcomes across the South Wye area by reducing traffic demand and provision an improved environment, following completion of the scheme.

The following evaluation research questions and sub questions have been developed to inform the design of the proposed scheme evaluation.

Number	Research question	Evaluation
RQ1	What worked well, and what worked less well during delivery of the scheme?	Process evaluation
Q1.1	Was the project programme delivered effectively to time and to budget?	Process evaluation
Q1.2	Were stakeholders effectively engaged?	Process evaluation
Q1.3	Was risk management effective in identifying, mitigating and escalating issues?	Process evaluation
RQ2	Has the scheme had an overall positive impact on improving network performance in the area?	Impact evaluation
Q2.1	Have journey times reduced by six minutes on the A465 Belmont Road, during peak periods, within three years of scheme completion? Has journey time reliability improved?	Impact evaluation
Q2.2	Has there been a change in daily traffic flows on the A465 Belmont Road, within three years of scheme completion? To what extent does this align with the scheme objective of reducing daily traffic flows on the A465 by up to 25%?	Impact evaluation
RQ3	Has the scheme had an overall positive impact towards its safety objectives?	Impact evaluation
Q3.1	Has there been a change in the rate and severity of collisions on the A465 Belmont Road and surrounding area within three years of scheme opening?	Impact evaluation
Q3.2	Has there been a change in the frequency and severity of collisions at identified collision cluster locations within three years of scheme opening?	Impact evaluation
RQ4	Has the scheme had an overall positive impact towards its environmental objectives?	Impact evaluation
Q4.1	Has there been a change in NO_2 levels at monitoring locations across the study area, including within the Hereford AQMA*, relative to pre-construction levels?	Impact evaluation
Q4.2	Has there been a change in noise levels at key receptors, particularly along routes such as the A465 Belmont Road and	Impact Evaluation

Number	Research question	Evaluation
	within Noise Important Areas, relative to pre-construction levels?	
RQ5	Has the scheme had an overall positive impact on the local economy?	Impact evaluation
Q5.1	Does the scheme support employment growth in Hereford?	Impact evaluation
Q5.2	Has there been a change in inward investment in Hereford, particularly within and around the HEZ?	Impact evaluation
Q5.3	Has improved connectivity, including reduced travel times to key employment areas such as the HEZ, contributed to improvements in business productivity in Hereford?	Impact evaluation
RQ6	Has the scheme improved the social outcomes in the South Wye area with key consideration the Belmont area, Walnut Tree Avenue and Holme Lacy Road?	Impact evaluation
Q6.1	Has there been in a change in the level of deprivation across the South Wye area following scheme implementation?	Impact evaluation
Q6.2	Has there been a change in community cohesion within the South Wye area as a result of changes in traffic, congestion, air quality and noise levels following scheme implementation?	Impact evaluation
RQ7	Is the scheme on track to deliver the expected value for money?	VfM evaluation

Evaluation approach

While the latest DfT guidance has been used on Benefits Management and Evaluation has been used to develop this BMEP, a lighter touch approach for the evaluation approach has been set out for this scheme. This aligns with Herefordshire Council's approach to monitoring and evaluation. Should a requirement arise to produce a fully DfT compliant BMEP, this plan will be reviewed and updated accordingly.

Process, impact and value for money evaluations will be undertaken using a combination of qualitative and quantitative data.

The process evaluation will determine whether the scheme was delivered on time and to budget and identify any lessons learned. This will include a mixture of interviews with key personnel alongside a review of the programme, risk register, scheme cost monitoring and stakeholder engagement. Evaluation of the delivered Scheme will be provided within the Year 1 Post-Opening Report.

The impact evaluation will focus on a before and after (baseline vs. 1 and 3 years post construction) comparison using qualitative and quantitative data where appropriate. It will focus on 5 key areas: Traffic, Safety, Environment, Economic and Social using a mixture of primary and secondary data sources. To assess the impact of the scheme, the principles of a Contribution Analysis approach will be used to understand the causal relationships between the Phase One scheme and any observed changes before and after (baseline vs. 1 and 3 years post construction). This will be supplemented by Interrupted Time Series

Analysis/Before and After analysis, using qualitative and quantitative data that is required to be collected to assess the outcomes and impacts identified within the logic map.

The assessment of scheme impacts three years after opening will inform a qualitative view of whether the Scheme is on track to deliver its forecast value for money, comparing each of the evaluated impacts with those set out in the appraisal.

Outcome and Impact Evaluation

Using the Theory of Change approach and logic map developed, the identified outcomes and impacts will be assessed.

- Traffic - all modes: Tom Tom, ATC and MCC data to determine changes in flow, journey times and mode share. **RQ2.1 & RQ2.2**
- Safety: STATS19 data to determine if there has been a reduction in collisions at identified locations. **RQ3.1 & RQ3.2**
- Air Quality: ATC and MCC data alongside air quality / Diffusion tubes to provide indication of change in air quality. **RQ4.1**
- Noise: ATC and MCC data to provide a proxy for likely change in noise levels. **RQ4.2**
- Carbon: ATC and MCC data to provide a proxy for likely change in carbon emissions. **RQ4**
- Economy: Stakeholder interviews and ONS employment data to establish changes to inward investment. **RQ5.1 & RQ5.2**
- Accessibility: Accessibility mapping such as Podaris or the DfT Connectivity Tool to establish change. **RQ5 & RQ6**
- Deprivation: Indices of Multiple Deprivation analysis to determine change. **RQ6.1**
- Cohesion: Combination of all data sources to determine change. **RQ6.2**

Evaluation Programme and Budget

The overall programme for scheme delivery and evaluation is set out in the table below. Costs associated to BMEP activities is to be reviewed and finalised with Herefordshire Council.

Date	Milestone
February 2026	Appointment of PCSA contractor
April 2026	Cabinet decision to agree FBC decision criteria
July 2026	Phase One FBC published
September 2026	Cabinet decision to release construction budget for the scheme
July – November 2026	Baseline data collection undertaken where relevant / applicable
December 2026	Construction of Phase One commences
March 2027	Baseline Report completed
September 2028	Phase One opens to traffic
September 2029 – December 2029	Year 1 post-opening data collection
March 2030	Year 1 post-opening report completed

Date	Milestone
September 2031 - December 2031	Year 3 post-opening data collection
March 2032	Year 3 post-opening report completed

1. Introduction

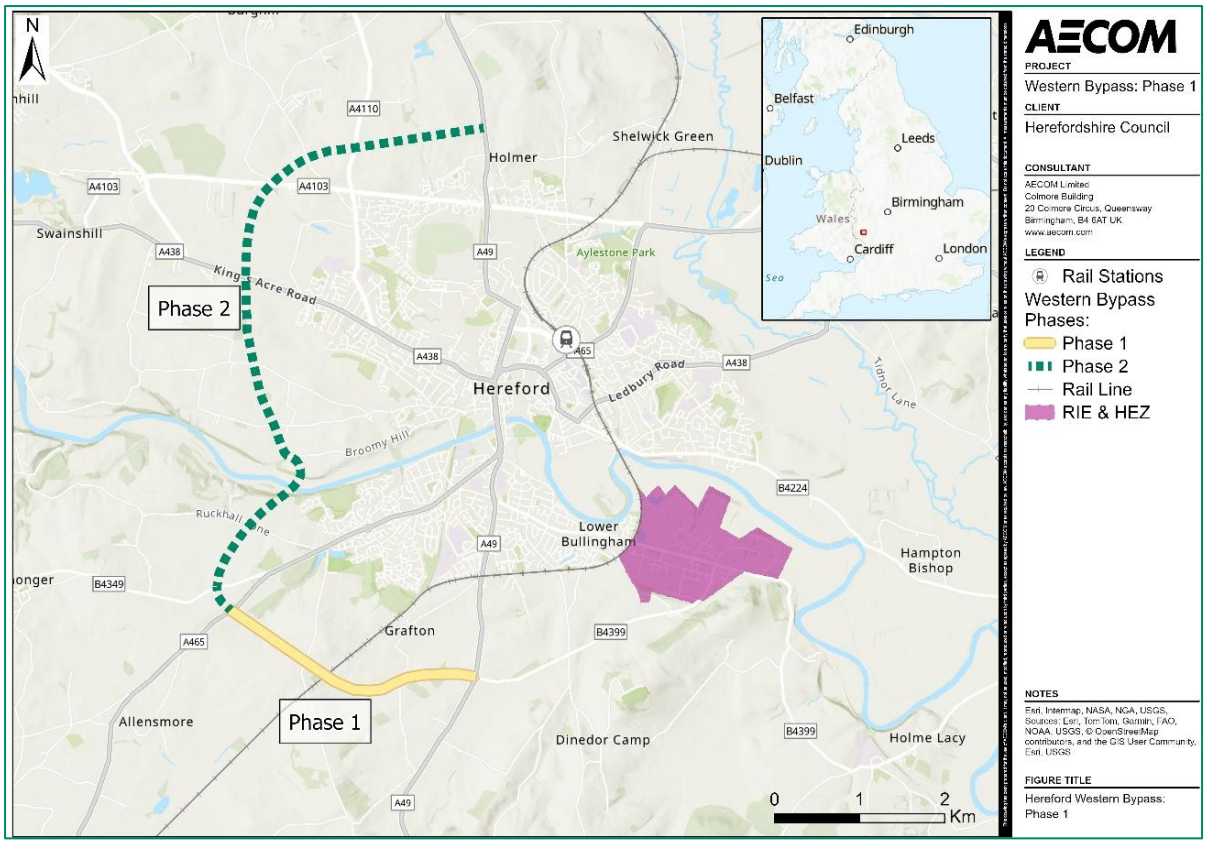
1.1 The Scheme

1.1.1 This is the Benefits Management and Evaluation Plan (BMEP) for the Phase One Hereford Western Bypass scheme being delivered by Herefordshire Council (HC). This document should be read alongside the Full Business Case for the Scheme.

1.1.2 Phase One of the Hereford Western Bypass is located in the South and South-West of Hereford. The alignment is fixed and forms the southern part of the route section, providing a 3km rural all-purpose single carriageway between the A465 and A49, and a key link to Hereford Enterprise Zone and Rotherwas Industrial Estate herein referred to collectively as HEZ. Full planning permission is in place for Phase One. Construction of Phase One is expected to commence in December 2026 and open to traffic in September 2028.

1.1.3 Phase 2 of the bypass is at a less-advanced stage but remains a critical component of the wider scheme, whereby the full strategic and network benefits will only be realised through the completion of both phases. Phase 2 will connect with Phase One at the A465 junction, providing onward connectivity and routing to the west of the city centre, including a crossing on the River Wye via a viaduct structure, before connecting with the A49 to the north of the city. Phase 2 is at the early development stage, requiring business case and option development.

Figure 1-1: Hereford Western Bypass



1.2 Standard Benefits Management and Evaluation

1.2.1 Whilst the latest DfT guidance on Benefits Management and Evaluation has been used to develop this BMEP, a high-level approach to the proposed evaluation activities has been set out. Following submission of the Full Business Case for the

scheme, the proposed evaluation activities will be reviewed in detail with Herefordshire Council and the BMEP will be updated accordingly.

1.2.2 Benefits monitoring and evaluation is undertaken to collect data and evidence before and after a scheme is implemented, analyse the findings from the monitoring, and draw conclusions about the impacts and value for money of a scheme. This will be based on a quantitative and qualitative assessment to investigate whether the monitoring data collected suggests that the ex-ante appraisal values remain valid.

1.2.3 This Phase One Hereford Western Bypass scheme BMEP is structured as follows:

- Section 1: Introduction;
- Section 2: Scheme Background and Context;
- Section 3: Scheme Objectives and Theory of Change;
- Section 4: Benefits Management and Evaluation Objectives Research and Questions;
- Section 5: Data Requirements and Collection Methods;
- Section 6: Resourcing and Governance; and
- Section 7: Project and Dissemination Plan.

2. Scheme Background and Context

2.1 Scheme Background

2.1.1 The proposal for a bypass of Hereford was initially developed over 30 years ago in the early 1990s. Since, options have largely alternated between eastern and western alignments, with key decisions influenced by environmental, economic, and political factors.

2.1.2 The preference for a western bypass came out of study work conducted between 2010-2013 and was included in the adopted Herefordshire Local Plan Core Strategy 2011-2031, as a key element of the long-term Hereford Transport Strategy (HTS). At the same time, the South Wye Transport Package (SWTP) was identified in the Local Transport Plan (LTP) as an important strategy for promoting economic growth within Hereford whilst tackling specific problems in the South Wye area. The SWTP was part of the broader HTS and a key element of the package was the inclusion of a new Southern Link Road (SLR), from the A49 to the A465.

2.1.3 Delivery of the SLR and wider Western Bypass were the preferred options through the 2010s. In May 2015 a planning application for the SLR was submitted and approved in July 2016 (which remains extant). Nominal works commenced in July 2019 to keep the planning permission live. Following the May 2019 Council elections, a decision was taken to pause all new major road schemes in Herefordshire. Between 2020–2021, focus shifted to active travel measures and an Eastern River Crossing. This decision was reversed following the elections in May 2023, with the New Road Strategy for Hereford (2024) recommending that progress should be recommenced with the Western Bypass.

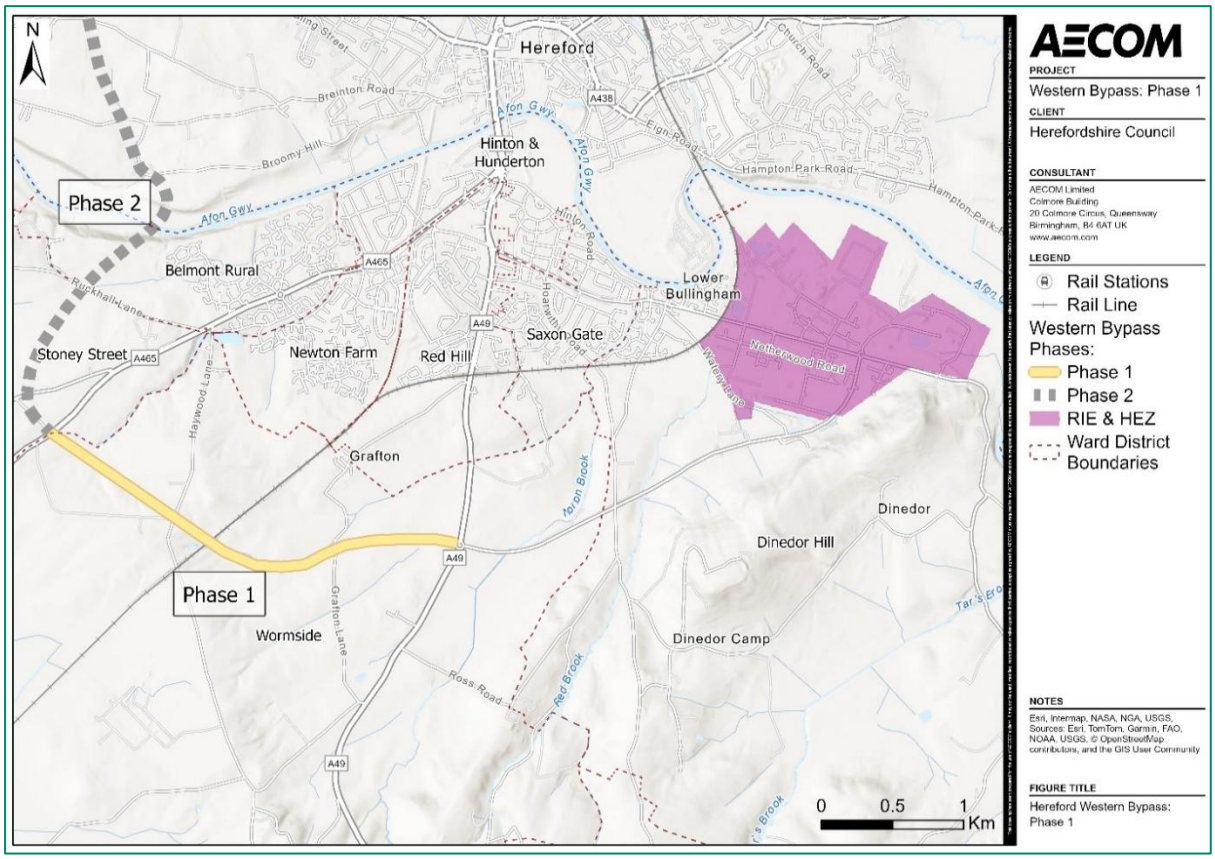
2.1.4 In addition, the update to the National Planning Policy Framework (NPPF), published in December 2024, almost doubled Herefordshire's housing target, leading to an increased focus on growth to the north and west of Hereford. This further emphasised the need for the full bypass to the west of Hereford which will likely have a significant role in unlocking land for housing and employment uses in the city.

2.2 Scheme Description

2.2.1 The scope of Phase One is set out below and presented in Figure 2-1:

- A 3.6 km rural all-purpose single carriageway designed using the DMRB
- Links the A465 and A49 in the South Wye area of Herefordshire
- Design speed of 60mph
- Improved access to Hereford Enterprise Zone (HEZ) for the South and West of the city
- Is a key enabler of delivering the full western bypass.

Figure 2-1: Phase One of the Hereford Bypass



2.3 Scheme Costs

2.3.1 The estimated Scheme construction costs (including costs to date) are set out in the Financial Dimension of the FBC.

2.3.2 Herefordshire Council will be funding the full cost of Phase One. To date, the council has allocated and authorised spend of £10.3m within its capital programme for the development of the scheme to construction, acquisition of land and associated costs. A further £35m has been included within the Council's capital programme for scheme construction. Following review of the Full Business Case, the Cabinet will make a decision to release the £35m construction budget and to award the construction contract[1].

[1] Cabinet Report April 2026

3. Scheme Objectives and Theory of Change

3.1 Scheme Objectives

3.1.1 A series of objectives were identified as part of the SWTP Option Assessment Report (OAR) (2019) for the scheme. These objectives have since been reviewed, taking into consideration the strategic and scheme priorities and have been adapted to relate to Phase One, ensuring they are SMART. The updated objectives for the scheme are set out in Figure 3-1.

Figure 3-1: Scheme Objectives

Objective: 1

Provide a more direct and reliable route to the HEZ for all users form the south / southwest of Hereford with journey time savings of more than six minutes during the peak periods on the A465, following completion of the Phase One scheme.

Objective: 2

- Relieve residential route pressures in the South Wye area, particularly along the A465 Belmont Road, Holme Lacy Road and Walnut Tree Avenue, by reducing daily traffic flows by up to 25%, following completion of the scheme.

Objective: 3

- Improve road safety across the South Wye Area following completion of the scheme.

Objective: 4

- Reduce air quality and noise impacts from road transport on key receptors across South Wye, particularly in the residential Belmont area following completion of the scheme.

Objective: 5

- Support economic growth and business productivity in Hereford through increased inward investment and reduced travel time.

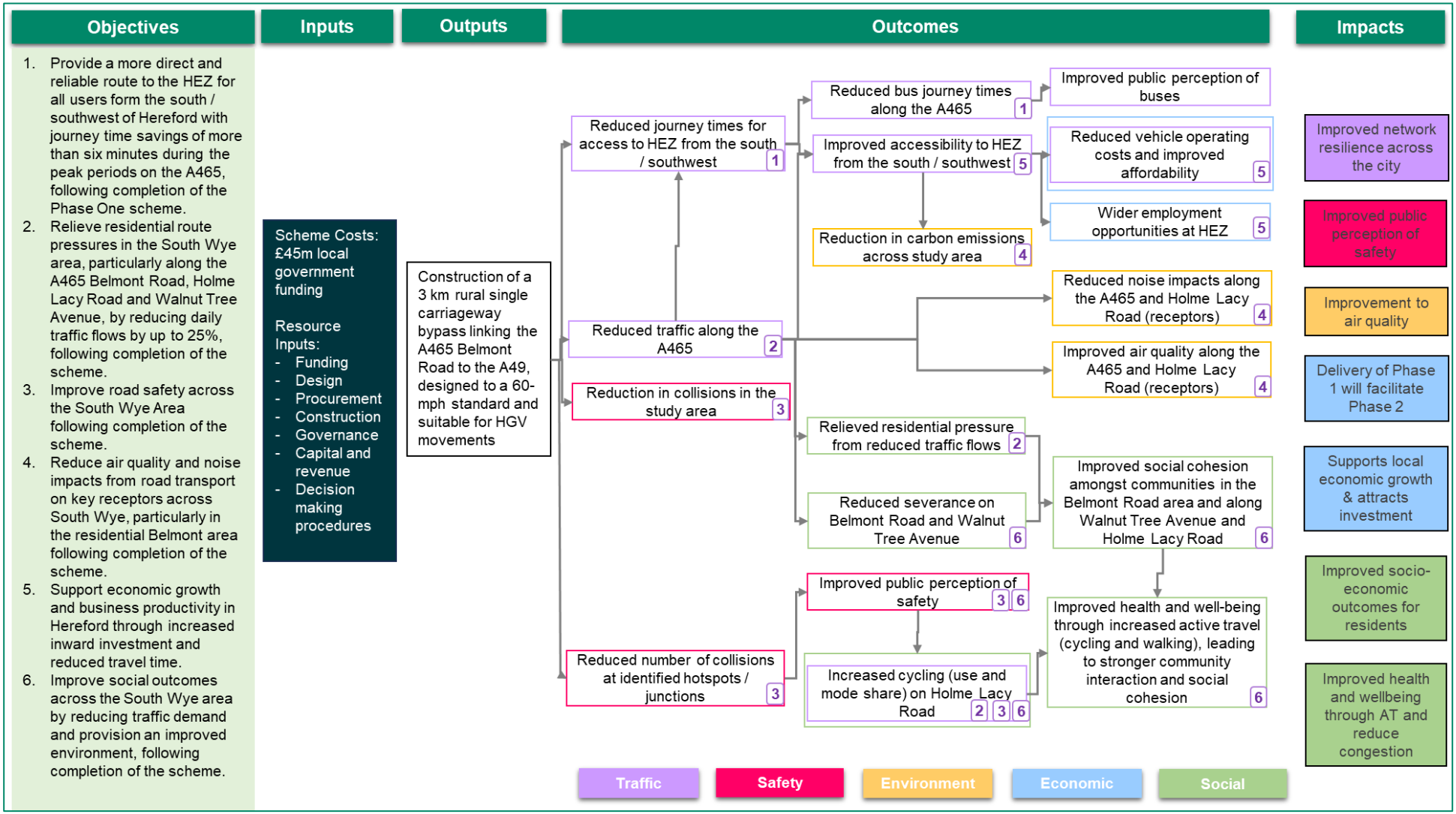
Objective: 6

- Improve social outcomes across the south Way area by reducing traffic demand and provision an improved environment, following completion of the scheme.

3.2 Theory of Change

3.2.1 The theory of change for the scheme can be better understood through presentation of a scheme's causal pathways and can be used to show how desired results and anticipated benefits are expected to be achieved. A logic map for the scheme has been developed and is presented in Figure 3-2 setting out the overall theory of change. In the case of this scheme, journey time benefits and a redistribution of traffic results in various traffic, safety, economic, environment and social benefits are expected across the South Wye area.

Figure 3-2: Phase One Logic Map



4. Benefits Management, Evaluation Objectives and Research Questions

4.1 Identified Benefits

4.1.1 The benefits from Phase One of the bypass are focussed on the urban areas of the city south of the River Wye (known as South Wye). The new road between the A465 and A49/B4399 roundabout will link directly to the Rotherwas Access Road (B4399) providing improved access to the HEZ.

4.1.2 The new road will enable trips from the A465 to reach the A49 and HEZ without having to travel through the existing urban areas of South Wye, reducing traffic volumes, congestion, noise and vehicle emissions along the A465, part of the A49 and Holme Lacy Road providing benefits to the residents who live in these areas through an improved environment, as well as benefits to travellers to the HEZ who will now have a more direct and faster route to their destination.

4.1.3 The case for change is founded on the need to address the challenges in South Wye and improve the operation and resilience of the transport network. The key issues include:

- Traffic congestion and safety concerns along the A465 Belmont Road.
- Environmental considerations such as the need to improve air quality and noise levels.
- A range of socio-economic issues including accessibility public health and deprivation.

4.1.4 The economic assessment (see the Economic Dimension of the FBC) includes an appraisal of all these issues and assessment of the economic benefits of addressing these issues by delivering the Scheme.

4.2 Benefits Management Approach

4.2.1 Benefits Management provides a process to ensure the intended outcomes and impacts of Phase One, as identified in the logic map, are achieved.

4.2.2 The Economic Case (please refer to the Full Business Case for the scheme) has identified the following benefits and disbenefits associated with Phase One which align to the scheme objective.

Benefits

1. Reduce traffic flows on Holme Lacy Road, Walnut Tree Avenue and A465 Belmont Road
2. Reduce journey times along the A465 Belmont Road
3. Improved access to HEZ
4. Reduce traffic noise along Belmont Road, Walnut Tree Avene, Holme Lacy Road and Haywood Lane.
5. Improve air quality in both NO2 and PM2.5 measures by reducing traffic on routes in residential areas of South Wye.

Disbenefits

6. Small increase in severe and fatal accidents

7. Minor noise increases along B4325 between Clehonger and Madley and Bage Pitch Road up to the A438

4.2.3 A series of Benefit Profiles will be developed for each of the identified Benefits to aid the Benefits Management and Realisation process. Each Benefit Profile will focus on the following key information:

- Benefit name
- Benefit description
- Associated scheme objective
- Monetised value
- Baseline
- Unit of Measurement
- Benefit Owners
- Benefit Recipient

4.3 Evaluation Scope

4.3.1 In line with the identified scheme objectives (Figure 3-1), the scheme is intended to provide outcomes across 5 themes:

- **Traffic:** improve network performance along the A465 Belmont Road through a reduction in traffic flows, congestion and journey times.
- **Safety:** improve road safety by reducing the rate and severity of collisions across the South Wye area.
- **Environment:** improve air quality and reduce noise impacts from road transport in residential areas, particularly in the Belmont area.
- **Economic:** support economic growth and business productivity in Hereford through increased inward investment and reduced travel times.
- **Social:** improve social outcomes in the Belmont and Holme lacy Road areas of Hereford by reducing travel demand and providing an improved environment.

4.3.2 For each theme consideration has been given to the forecast improvements and how they will be measured. Table 4-1 provides a summary noting that both a qualitative and quantitative approach is being considered.

Table 4-1: Monitoring Scheme themes

Theme	Forecast Improvement
Traffic	Redistribution of traffic away from the city centre and residential routes onto the Phase One scheme, resulting in reduced congestion, improved journey times and journey time reliability, and increased average speeds across key roads such as the A465 Belmont Road, Walnut Tree Avenue and Holme Lacy Road.
Safety	Reduction in collisions at key junctions and links, including the A49/A465 and A49/ Holme Lacy Road junctions, as a result of traffic redistribution and improved road design, leading to an overall improvement in road safety.
Environment	Reduction in traffic-related environmental impacts through redistribution of traffic, including movements associated with HEZ and, from the A465 Belmont Road and A49 corridors onto the new bypass road. This will result

Theme	Forecast Improvement
	in improved air quality and reduced noise levels along key urban routes, including Noise Important Areas (NIA).
Economic	Improved connectivity to HEZ and surrounding areas will support economic growth and productivity by improving access to employment, particularly for sectors requiring in-person travel. This is expected to boost local GVA, support inward investment, and facilitate planned housing proposals.
Social	Reduction in negative social impacts in the South Wye area, including in more deprived communities, through the redistribution of traffic away from routes such as the A465 Belmont Road, Walnut Tree Avenue and Holme Lacy Road onto the new bypass. This will improve community cohesion, reduce severance, and enhance health, quality of life and better access to employment opportunities at HEZ.

4.4 Research Questions

4.4.0 The BMEP will seek to answer the following questions, which are linked to the Scheme objectives. Table 4-2 identifies a set of overarching questions, with sub-questions where relevant.

Table 4-2: Research Questions

Number	Research question	Category	Evaluation
RQ1	What worked well, and what worked less well during delivery of the scheme?	Scheme build	Process evaluation
Q1.1	Was the project programme delivered effectively, to time and to budget?	Scheme build	Process evaluation
Q1.2	Were stakeholders effectively engaged?	Scheme build	Process evaluation
Q1.3	Was risk management effective in identifying, mitigating and escalating issues?	Scheme build	Process evaluation
RQ2	Has the scheme had an overall positive impact on improving network performance in the area?	Traffic	Impact evaluation
Q2.1	Have journey times reduced by six minutes on the A465 Belmont Road, during peak periods, within three years of scheme completion? Has journey time reliability improved?	Journey times and reliability	Impact evaluation

Number	Research question	Category	Evaluation
Q2.2	Has there been a change in daily traffic flows on the A465 Belmont Road, within three years of scheme completion? To what extent does this align with the scheme objective of reducing daily traffic flows on the A465 by up to 25%?	Traffic flows and reliability	Impact evaluation
RQ3	Has the scheme had an overall positive impact towards its safety objectives?	Safety	Impact evaluation
Q3.1	Has there been a change in the rate and severity of collisions on the A465 Belmont Road and surrounding area within three years of scheme opening?	Collisions	Impact evaluation
Q3.2	Has there been a change in the frequency and severity of collisions at identified collision cluster locations within three years of scheme opening?	Collisions	Impact evaluation
RQ4	Has the scheme had an overall positive impact towards its environmental objectives?	Environment	Impact evaluation
Q4.1	Has there been a change in NO_2 levels at monitoring locations across the study area, including within the Hereford AQMA*, relative to pre-construction levels?	Air quality	Impact evaluation
Q4.2	Has there been a change in noise levels at key receptors, particularly along routes such as the A465 Belmont Road and within Noise Important Areas, relative to pre-construction levels?	Noise	Impact Evaluation
RQ5	Has the scheme had an overall positive impact on the local economy?	Economic	Impact evaluation
Q5.1	Does the scheme support employment growth in Hereford?	Impacts on the local economy	Impact evaluation
Q5.2	Has there been a change in inward investment in	Impacts on the local economy	Impact evaluation

Number	Research question	Category	Evaluation
	Hereford, particularly within and around HEZ?		
Q5.3	Has improved connectivity, including reduced travel times to key employment areas such as HEZ, contributed to improvements in business productivity in Hereford?	Impacts on the local economy	Impact evaluation
RQ6	Has the scheme improved the social outcomes in the South Wye area with key consideration the Belmont area, Walnut Tree Avenue and Holme Lacy Road?	Social	Impact evaluation
Q6.1	Has there been in a change in the level of deprivation across the South Wye area following scheme implementation?	Deprivation	Impact evaluation
Q6.2	Has there been a change in community cohesion within the South Wye area as a result of changes in traffic, congestion, air quality and noise levels following scheme implementation?	Cohesion	Impact evaluation
RQ7	Is the scheme on track to deliver the expected value for money?	Value for money	VfM evaluation

*It is understood that the Hereford AQMA is in the process of being revoked. Only the southern extent of the AQMA falls within the study area. It is still considered worthwhile to collect this data.

4.5 Evaluation Approach

4.5.1 The scheme will be subject to a process / lessons learned, impact and value for money evaluation using a mixed approach combining qualitative and quantitative analysis. The approach will enable a proportionate review of whether outcomes have been achieved as expected using readily available data, where possible alongside primary data where required.

4.5.2 To assess the impact of the scheme, the principles of a Contribution Analysis approach will be used to understand the causal relationships between the Phase One scheme and any observed changes before and after (baseline vs. 1 and 3 years post construction). This will be supplemented by Interrupted Time Series Analysis/Before and After analysis, using qualitative and quantitative data that is required to be collected to assess the outcomes and impacts identified within the logic map.

4.5.3 Various data will be used to support this evaluation approach

- Review of delivery (outputs) as defined in the process evaluation.

- Consideration of wider contextual factors that may impact scheme delivery and subsequent outcomes and impacts.
- Assessment of alternative explanations of observed change, and stakeholder discussion.
- Time series data to test for a causal change in the trend of outcomes following intervention.

4.5.4 A counterfactual assessment will be considered through comparing a Do-Nothing scenario (without the Phase One scheme) versus a Do-Something scenario (with the Phase One scheme) to ascertain the difference the scheme has made. Consideration will be given to how trend data has changed as a result of the scheme, for example the change in journey times and traffic flows on key routes as a result of the scheme versus expected trajectory without the scheme.

4.5.5 To enable the Scheme's benefits to be evaluated, three monitoring and reporting stages are proposed:

- **Baseline** - a baseline assessment will be undertaken to provide a benchmark to assess changes in outcomes and impacts post-scheme opening.
- **Post opening evaluation (one year after)** – The impact of the Scheme will be assessed one year after construction. The one-year post-construction monitoring will provide a first indication of the impact of the Scheme. Evaluation of the delivered Scheme, founded from the Process Evaluation will be provided within the Year 1 Post-Opening Report.
- **Post opening evaluation (three years after)** – the impact of the Scheme will be assessed three years following implementation. The post-implementation monitoring will provide an update to the one-year evaluation and assess changes in key outcomes compared with the initial evaluation, using quantitative and qualitative methods. The value for money assessment will be considered at this stage.

5. Data Requirements and Collection Methods

5.1 Introduction

5.1.1 This section provides an overview of the methodology that will be used to assess each of the evaluation components.

5.2 Input - Scheme Build

5.2.0 Key information and evidence to support a transparent evaluation of the Scheme build process will be collected throughout the delivery process. Table 5-1 provides a summary of the items that will be included within the evaluation of the Scheme build. Information will be documented as part of regular design and progress meetings (fortnightly), Project Board meetings (monthly / highlight report), Risk Workshop (quarterly), Cabinet papers and Gateway Reviews at key milestones.

Table 5-1: Scheme Build Data Requirements

Scheme build metrics	Monitoring details	Data collected
Programme / project plan	Progress against programme and where applicable: The dates key milestones on the project were achieved Changes in programme delivery and milestones and how they were mitigated Causes of programme slippage or change and how risks were managed	Record keeping during construction including work dates and changes to programme Discussions with delivery team, including Project Manager, to identify causes of programme slippage and risk management
Stakeholder management	Effectiveness of stakeholder management activities Stakeholder views	Stakeholder engagement records during construction Discussions with key stakeholders
Risk management	Main risks encountered during Scheme delivery New risks identified after the start of implementation Mitigation procedures and measures Measures successful in mitigation Risks requiring escalation	Construction risk register, identifying new risks developed during Scheme build Recording mitigation procedures Recording of successful mitigation Record keeping of where risks were realised and their impact
Scheme benefits	Changes in causal pathways since the baseline logic mapping Short-term outcomes attributable to the scheme	Update Scheme logic map one year after completion

Scheme build metrics	Monitoring details	Data collected
	Comparison of short-term outcomes with scheme projections Lessons learnt on the relative effectiveness of each Scheme element Comparison of as built vs. planned Scheme at FBC	

5.2.1 Evaluation of the delivered Scheme will be provided within the Year 1 Post-Opening Report. This will provide a detailed comparison of the Scheme at funding approval against the delivered Scheme. The design team will work alongside the construction team to identify and document the outturn deliverables against the planned deliverables. The Herefordshire Council Project Manager will be responsible for ensuring details are readily available and clearly documented for supply for evaluation.

5.3 Output - Delivered Scheme

5.3.1 Monitoring outputs consists of a single element: the assessment of the delivered Scheme. This sets out what has been delivered as part of the Scheme and how it is being used.

5.3.2 Following the delivery of the Scheme, the implemented Scheme outputs will be reviewed, and any changes to the Scheme's design and mitigation measures developed and implemented during construction will be identified. Table 5-2 shows the key output metrics considered.

Table 5-2: Delivered Scheme Data Requirements

Delivered Scheme metrics	Monitoring details	Data collected
Scheme description	Full description of the Scheme Map of the overall scheme	As-built drawings of the Scheme Updated mapping to be undertaken in the vicinity of the Scheme
Design	Details of design changes since Board approval Reason for any changes	Design Change Log to be compiled during detailed design and construction, including rationale for changes Where necessary, discussions with designers and construction leaders to understand reasoning for changes
Mitigation measures (e.g. for	Changes in mitigation measures Reason for any changes	Mitigation Change Log to be compiled during detailed design and construction, including rationale for changes to any mitigation measures

Delivered Scheme metrics	Monitoring details	Data collected
landscape and noise)		Where necessary, discussions with designers and construction leaders to understand reasoning for changes

5.4 Outcomes and Impacts

5.4.0 Table 5-3 sets out the outcome and impact related monitoring requirements, identifying the data needed, the proposed data source and frequency of data collection. For any primary data collection, agreement with Herefordshire Council will be needed on the level and extent of data to be collected.

5.4.1 As the bypass is new infrastructure, baseline data cannot be collected for the route itself prior to implementation. Instead, baseline conditions will be established using data from the existing road network and surrounding study area, focusing on the five themes of Traffic, Safety, Environment, Economic and Social. This will provide a comprehensive reference point against which changes in traffic patterns, safety performance, environmental conditions, and socio-economic outcomes can be assessed once the scheme is operational.

5.5 Area of Influence

5.5.0 The area of influence (AoI) is set out in Figure 5-1. Data will be collected within this study area for the impact evaluation. Route specific data will be collected along identified impacted routes such as the A465 and Holme Lacy Road. The scheme is expected to have impacts in some out outlying villages including Clehonger, Madley and Kingstone. Where impacts are noted in these areas, traffic data will be collected. For wider geographical datasets, such as deprivation data, LSOA level data will be collected across the AoI. Further detail on the data collection requirements is set out in Table 5-3.

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Figure 5-1: Evaluation Area of Influence

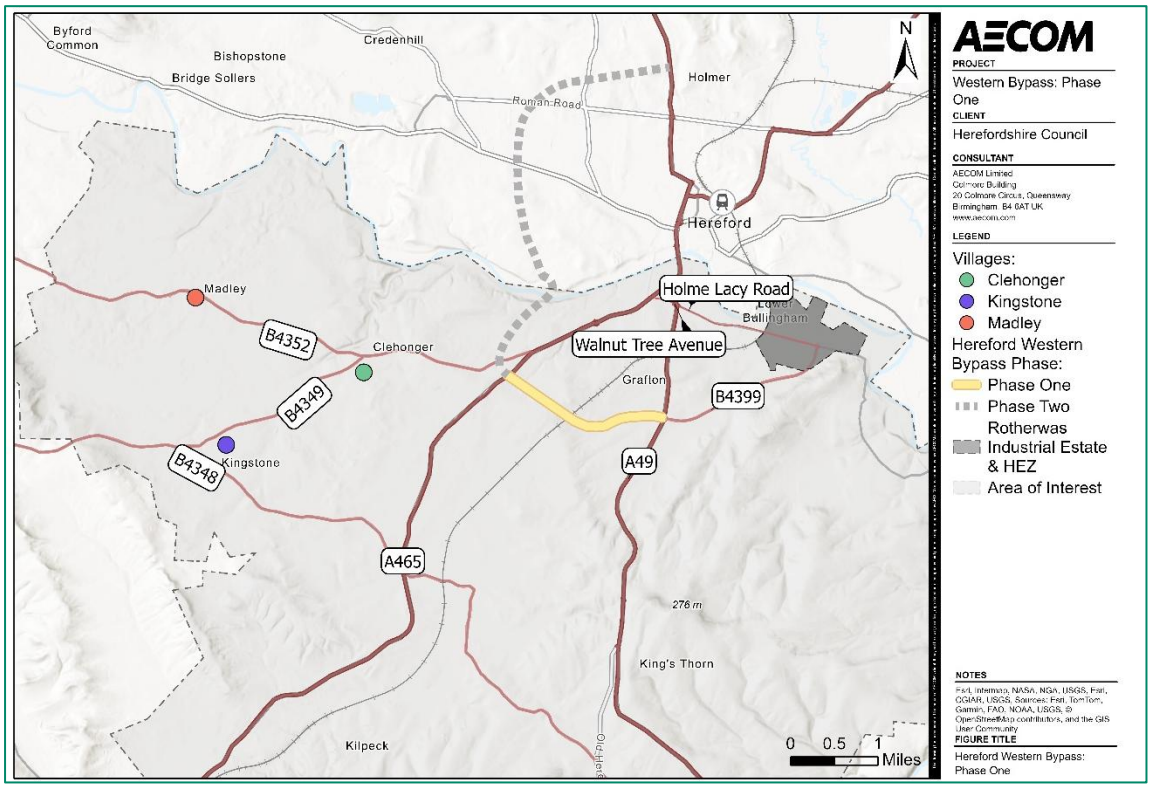


Table 5-3: Outcome Monitoring Data Requirements

Theme	Data Required	Data Source		Link to Research Question	Link to Benefit / Disbenefit
		Primary	Secondary		
Traffic	Vehicle journey times: to determine changes in journey times on the A465	Traffic Survey Data	Drakewell C2-Cloud Traffic Data Bluetooth / Passive Sensors (Trafficmaster) Tom Tom	RQ2.1 & RQ2.2	2
Traffic	Bus journey times: to determine changes in journey times on the A465		Analyse Bus Open Data (ABODS) – Automatic Vehicle Location (AVL)		2
Traffic	Traffic flows: to determine the extent of traffic redistribution on the road network	Traffic Survey Data	Drakewell C2-Cloud Traffic Data DfT Annual Average Daily Traffic data		1
Traffic	Operating costs: to determine changes to vehicle operating costs and affordability	Stakeholder Interviews			3
Traffic	Mode share: to determine whether the Scheme has resulted in changes in travel behaviour, including shifts between car, public transport, walking and cycling.	Traffic Survey Data Cycling & pedestrian counts	Drakewell C2-Cloud Traffic Data		

Theme	Data Required	Data Source		Link to Research Question	Link to Benefit / Disbenefit
		Primary	Secondary		
Safety	Collision Data: to determine whether safer road conditions have been achieved due to improvements in traffic conditions.		STATS19	RQ3.1 & RQ3.2	6
Environment	Air Quality: to determine whether the air quality has improved at key receptors, particularly in the Belmont residential area	Traffic Survey Data	DEFRA Air Quality monitoring data Air quality / Diffusion tubes on Belmont Road and Holme Lacy Road / Ross Road*	RQ4.1	5
Environment	Noise: to determine whether there has been a reduction in noise impacts from road transport at key receptors, particularly in the Belmont residential area	Traffic Survey Data	DEFRA Road Noise Statistics	RQ4.2	4 7
Environment	Carbon: to determine whether the Scheme has resulted in changes to carbon emissions from traffic as a result of changes in traffic flows and vehicle speeds.	Traffic Survey Data	Local monitoring	RQ4	
Economic	Local economy / wider employment opportunities	Stakeholder Interviews	ONS Data – Employment Rates, Planning Applications	RG5.1 & RQ5.2	3

Theme	Data Required	Data Source		Link to Research Question	Link to Benefit / Disbenefit
		Primary	Secondary		
Economic / Social	Accessibility: to determine whether the Scheme has improved access to employment, services and key destinations (such as HEZ) for residents by different transport modes.		Podaris / DfT Connectivity Tool	RQ5 & RQ6	3
Social	Deprivation: to assess whether the impacts of the Scheme vary between areas with different levels of deprivation.	Resident Surveys	Indices of Multiple Deprivation	RQ6.1	
Social	Cohesion: to determine whether changes to traffic, congestion, air quality and noise pollution have impacted community cohesion in the South Wye area.	Resident Surveys	Traffic & Environment data sources	RQ6.2	

*With the potential removal of the AQMA designation in Hereford, HC may remove current monitoring tubes on Belmont Road and Holme Lacy Road / Ross Road. It is recommended that these remain to assess the impacts of Phase One and redistribution of traffic on air quality at these locations.

5.6 Data Collection Methods

5.6.1 The use of primary data sources provides a robust and scheme-specific evidence base for monitoring and evaluation. Primary data can be tailored to capture detailed local conditions, travel behaviours, and user perceptions that are not typically available from secondary sources, thereby enhancing the overall accuracy and relevance of the monitoring and evaluation.

Traffic Surveys

5.6.2 It is recommended that traffic survey data is collected to assess the impact of the scheme within the AoI. This includes on roads intended to benefit from the scheme such as the A465, Holme Lacy Road, Walnut Tree Avenue and the A49 alongside roads in Clehonger, Madley and Kingstone where wider distributional impacts such as noise and air quality impacts of the Phase One scheme have been noted.

5.6.3 Further review and consideration of the traffic survey locations will be undertaken following submission of the FBC and in discussion with Herefordshire Council. The following roads within the AoI should be considered as a minimum.

- A465, Walnut Tree Avenue, Holme Lacy Road, B4399, A49
- Merryhill Terrace and routes south of the Phase One scheme
- B4349 / B4352 Clehonger, B4352 Madley, B4349 / B4348 / Dean Pool Kingstone
- Phase One scheme once opened

5.6.4 Automatic Traffic Counts (ATC), Manual Classified Counts (MCC) and Speed survey data should be collected for all modes including HGVs at Baseline for at least a one-week period, 1 year after and 3 years after.

Stakeholder Interviews

5.6.5 Interviews with key stakeholders are proposed to gauge whether the scheme has impacted the local economy, including vehicle operating costs and affordability. Discussions with businesses at HEZ and the Project Manager will provide insights into whether the scheme has enabled more efficient travel times to the HEZ and supported the growth of the HEZ through inward investment opportunities.

5.6.6 The extent of the interviews, and the interviewees will be discussed and agreed with Herefordshire Council following submission of the FBC.

5.6.7 Retrospective interviews, following the completion of the Phase One is suggested for reporting in the 3 years after report.

Resident Surveys

5.6.8 To understand the impact of scheme on residents in relation to social, economic and environmental objectives, it is recommended that resident surveys are undertaken. These would be focused on the areas most likely to be impacted by the scheme: the Belmont area, along Walnut Tree Avenue and Holme Lacy Road and the outlying villages of Clehonger, Madley and Kingstone.

5.6.9 The extent and content of residential surveys will be discussed with Herefordshire Council but it is considered that the following areas should be covered:

- Impacts of the scheme on traffic, noise and air quality on residents.
- Perceived changes to social cohesion
- Perceived changes to deprivation

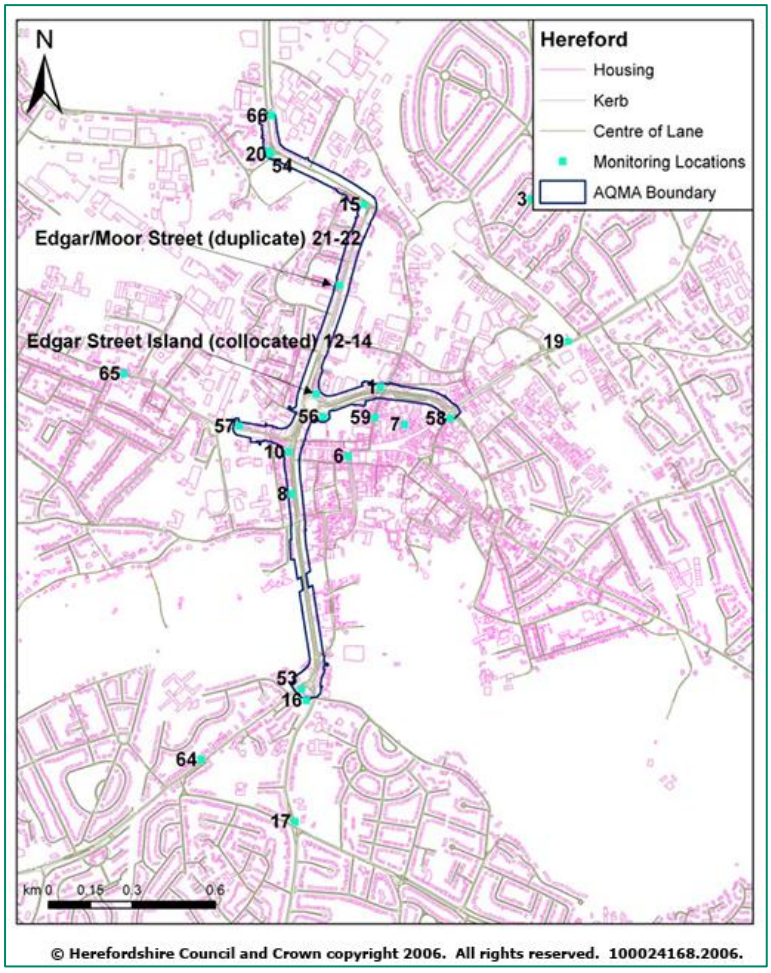
5.6.10 Retrospective surveys, following the completion of the Phase One is suggested for reporting in the 3 years after report.

Air Quality Monitoring

5.6.11 Diffusion tubes are currently located on Belmont Road (site 64) and Holme Lacy Road / Ross Road (site 17) to provide data for the current AQMA as set out in Figure 5-2. There is potential to remove the AQMA designation in Hereford, which may result in the removal of these monitoring sites. It is recommended that the tubes remain to assess the impacts of the Phase One scheme and expected redistribution impacts of traffic on air quality at these locations.

5.6.12 Data should be collected at Baseline, 1 year after and 3 years after. As per guidance, 4 months' worth of data should be collected for each reporting period.

Figure 5-2: Herefordshire AQMA and monitoring locations (Source: Hereford City Air Quality Action Plan[2])



Secondary Data Sources

5.6.13 A range of secondary data sources have been identified. A summary of the proposed data collection approach for each is set out below.

- Podaris / DfT Connectivity Tool – these tools will provide accessibility analysis. The change in accessibility to and from the HEZ pre and post scheme construction is the main area of interest. It is recommended that this is presented at Baseline, 1 year after and 3 years after to determine the level of change.

[2] chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://aqma.defra.gov.uk/action-plans/HC%20AQAP%202008.pdf

- ABODS – this will provide bus specific journey time data. The scheme is proposed to make improvements to bus journey times along the A465. It is proposed that data is reviewed and analysed for a one-week period along the A465 at Baseline, 1 year after and 3 years after to determine the level of change.
- ONS – the collection of various employment related data is proposed, including business births and deaths to gauge local economy status. It is recommended that data is collected annually between the Baseline and 3 years after period to determine any trends and changes as a result of the Phase One scheme.
- IMD – as per the ONS data, if available annual data will be collected between the Baseline and 3 years after period to determine any trends and changes as a result of the Phase One scheme. The data will be collected at LSOA level across the AoI but with specific focus on LSOAs in the Belmont area, Walnut Tree Avenue and Holme Lacy Road.
- STATS19 - as per the ONS and IMD data, annual accident data will be collected between the Baseline and 3 years after period to determine any trends and changes as a result of the Phase One scheme. 5 year data must be collected as minimum to assess accidents. Data will be collected and analysis along all routes within AoI including along Phase One once open to traffic.
- DEFRA – to supplement traffic data collected, where available, data relating to noise and air quality will be collected from DEFRA to determine change.
- Drakewell C2 / TOM TOM / Trafficmaster /AADT– these secondary datasets will be considered if the collection of traffic survey data is not possible.

5.7 Value for Money Assessment

5.7.0 Both a qualitative and quantitative approach to the VfM assessment is recommended. Given benefits of the scheme are unlikely to be realised immediately upon completion it is suggested the VfM assessment undertaken at 3 years after opening. The key requirements of the VfM assessment are set out in Table 5-4.

Table 5-4: Value for Money Data Requirements

	Criteria	Suggested Data
Economy	Minimising the cost of resources used or required (inputs) – spending less	Review of proposed scheme costs / inputs vs. actual scheme costs / inputs. To be identified through the Process Evaluation findings.
Efficiency	The relationship between the output from goods or services and the resources to produce them – spending well	What outputs have been delivered vs. costs compared to Business Case forecasts, and any significant efficiencies made throughout the Project, including during delivery. To be identified through the Process Evaluation findings.
Effectiveness	The relationship between the intended and actual results of public spending (outcomes) – spending wisely	Review of intended outcomes (logic map) vs. delivered outcomes. To be identified through the impact evaluation.
Equity	The extent to which services are available to, and reach all, people that they are intended to –	Review of Equality Impact Assessment, Social and Distributional Impact Assessment &

	spending fairly. Some people may receive differing levels of service for reasons other than differences in their levels of need	Place Based Analysis post build to qualify if scheme has delivered anticipated benefits within the study area. Review of accessibility analysis pre- and post-delivery. To be identified through the impact assessment.

6. Resourcing and Governance

6.1 Introduction

6.1.1 The results of the monitoring and evaluation process will be summarised in three reports: the Baseline Report, Year 1 Post Opening Report; and the Year 3 Post-Opening Report. Detail obtained from the Process Evaluation will be set out in the Year 1 Post Opening Report.

6.2 Resourcing Plan

6.2.1 Resourcing of BMEP related activities is to be reviewed by HC. It is expected that the key activities set out in Table 6-1 will need to be undertaken.

6.2.2 Costs associated with each of the activities is to be reviewed and finalised by HC.

Table 6-1: Resourcing Plan

Activity	Cost
Baseline Data Collection (incl. traffic survey data collection)	TBC
Baseline Report	TBC
Process Data Collection	TBC
Year 1 Data Collection (incl. traffic survey data collection)	TBC
Process Findings and Year 1 Post-Opening Report	TBC
Value for Money Data	TBC
Year 3 Data Collection (incl. traffic survey data collection) 5	TBC
Year 3 Post-Opening Report	TBC
Project Management	TBC

6.3 Project Plan

6.3.1 The key dates and milestones for Phase One delivery are set out in Table 6-2. Construction of the scheme is expected to commence in December 2026 and will follow 21-month delivery programme. The full project programme can be found in the FBC.

Table 6-2: Key Project Milestones

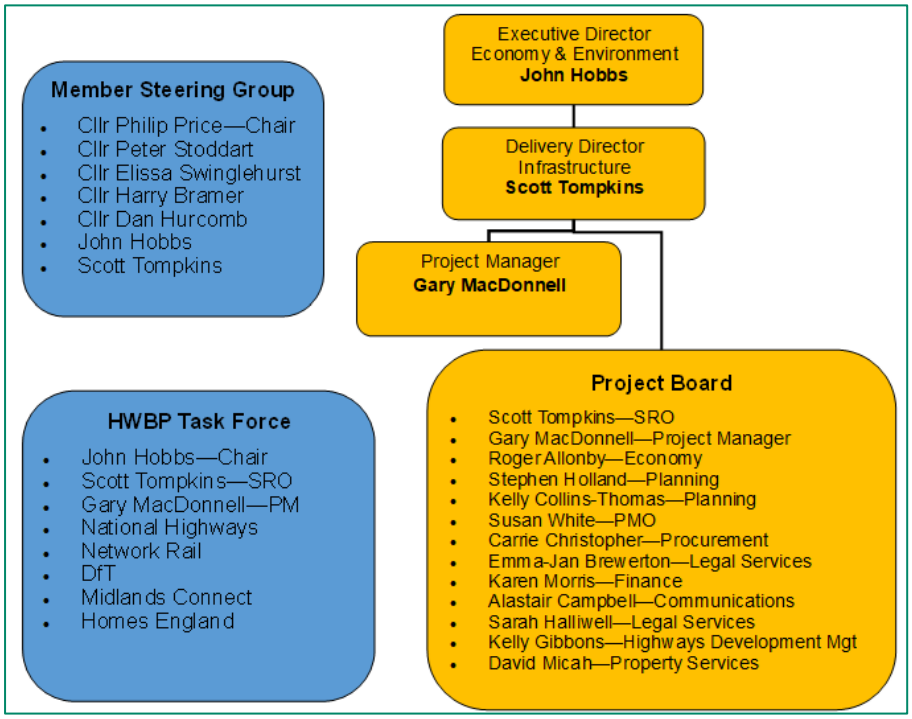
Date	Milestone
February 2026	Appointment of PCSA contractor
April 2026	Cabinet decision to agree FBC decision criteria
July 2026	Phase One FBC published
September 2026	Cabinet decision to release construction budget for the scheme
July – November 2026	Baseline data collection undertaken where relevant / applicable
December 2026	Construction of Phase One commences

Date	Milestone
March 2027	Baseline Report completed
September 2028	Phase One opens to traffic
September 2029 – December 2029	Year 1 post-opening data collection
March 2030	Year 1 post-opening report completed
September 2031 - December 2031	Year 3 post-opening data collection
March 2032	Year 3 post-opening report completed

6.4 Governance Plan

6.4.1 The governance structure for the delivery of the Phase One scheme is set out in Figure 6-1 below. The Project Manager who will have day-to-day responsibility for the process, and it will be overseen by the Senior Responsible Owner and the Scheme's Project Board.

Figure 6-1: Hereford Western Bypass - Phase One - Governance Structure



6.4.2 The primary governance arrangements are carried out through the member led Steering Group and Officer group Project Board.

6.5 Risk Management

6.5.1 Table 6-3 of this BMEP highlights the main risks to monitoring and evaluation and shows how they will be mitigated.

Table 6-3: Risk Register

Risk ID	Risk Description	Likelihood	Impact	Risk Rating	Mitigation Measures	Ownership	Adjusted Likelihood	Adjusted Impact	Adjusted Risk Rating
1	Availability and cost of monitoring data	M	H	H	BMEP clearly identifies data sources. Preparation before Scheme construction commences to identify individual sources of data and data storage. Consideration of survey scope, stakeholder engagement to ensure the process for non-publicly available data collection is confirmed and agreed at an early stage, working in partnership with relevant stakeholders. Make best use of available existing/ongoing monitoring data and prioritise data collection most useful for the evaluation and a proportionate approach to data collection.	HC / Scheme contractor	L	L	L
2	Quality of monitoring data	L	M	M	Publicly available data will have been 'cleaned' before it is published. Other data will be checked and cleaned either by the providing organisation or by the evaluation team.	HC / Scheme contractor	L	L	L
3	Data storage	L	M	M	Data will be stored on an identified server and accessible file location to ensure it is available to M&E staff, ensuring resilience	HC / Scheme contractor	L	L	L

Risk ID	Risk Description	Likelihood	Impact	Risk Rating	Mitigation Measures	Ownership	Adjusted Likelihood	Adjusted Impact	Adjusted Risk Rating
					over time in the event of staff or sub-contractor changes.				
5	Staff turnover and loss of scheme knowledge	H	M	H	Systems will be set up to ensure there is effective management of M&E data. To manage the impact of staff turnover, a comprehensive and detailed handover process will take place so that incoming staff understand the Scheme's benefits and the monitoring and evaluation process.	HC	M	M	M
6	M&E capability within HC	L	M	M	HC will appoint a suitably qualified consultant to develop the outputs identified in this BMEP. The sub-contractor will work with HC to specify data collection, review, and management, and lead the development of the BMEP outputs	HC / Sub-contractor	L	L	L
7	Competing interests lessen the focus on M&E	M	M	M	HC's appointed consultant will lead the M&E process, working with HC who will be responsible for delivering the BMEP outputs.	HC	L	L	L

6.6 Quality Assurance

6.6.1 For the monitoring and evaluation exercise to add value, the findings must be accurate, reliable and uncompromised. The evaluation must be independent, inclusive, robust and transparent.

6.6.2 There may be pressures on the evaluation project timescales and / or resources. Should such a situation occur, it is preferable to reduce the scope of the evaluation rather than compromise the quality of the evaluation.

6.6.3 It is anticipated that BMEP related activities will be outsourced to a consultancy, where a nominated Project Manager will oversee delivery. The Project Manager will ensure consistency in data collection, the methodology used, reporting and the interpretation of findings.

6.6.4 Quality control is the responsibility of the BMEP Project Manager with inputs from HC as required. Quality assurance procedures will be implemented throughout the evaluation programme, enabling an early response to any problems encountered.

6.6.5 The consultant that is appointed to undertake the BMEP will be required to hold, as appropriate, relevant QA certificates. This will provide HC with confidence that the Quality Management Systems (QMS) and processes operated by the consultant meet the required standards.

6.6.6 The BMEP is a key part of the overall scheme delivery, it should be undertaken within a quality management system which is aligned with that operated by HC.

6.6.7 Changes to the scope and delivery of the BMEP outputs can be raised by all parties, including the sub-contractor, who will be expected to advise of any potential changes to scope that could add value to the scheme or HC. HC will be responsible for authorising any request for changes in the evaluation approach, programme, or budget. HC should be advised of the impacts of all potential changes to stakeholders, end users, suppliers, and the outturn scheme quality by the BMEP Project Manager.

7. Project and Dissemination Plan

7.1 Introduction

7.1.1 This section provides a summary of the delivery plan for the BMEP including:

- Project plan and timeframe for data collection; and
- Reporting of monitoring and evaluation findings.

7.2 Project Plan

7.2.1 The BMEP project plan and timeframe for data collection is shown in Table 7-1. As discussed above, the Scheme will be subject to monitoring reviews one and three years post scheme completion, including both data collection and reporting.

Table 7-1: Project Plan

Date	Milestone
July – November 2026	Baseline data collection undertaken where relevant / applicable
December 2026	Scheme construction begins
March 2027	Baseline Report completed
September 2028	Scheme construction ends
September 2029 – December 2029	Year 1 post-opening data collection
March 2030	Year 1 post-opening report completed
September 2031 – December 2031	Year 3 post-opening data collection
March 2032	Year 3 post-opening report completed

7.3 Reporting

7.3.1 Monitoring and evaluation findings will be reported in three separate documents:

- **Baseline Report:** This report will detail the existing conditions for the specified metrics.
- **Year 1 post-opening report:** This report will assess the impact of the Scheme on the metrics based on data collected one year after implementation.
- **Year 3 post-opening report:** This report will assess the impact of the Scheme on the metrics based on data collected three years after implementation.

7.3.2 The analysis will determine whether the Scheme is achieving its intended impacts and outcomes and thus delivering its forecast benefits.

7.4 Dissemination Plan

7.4.1 All specified BMEP outputs will be publicly available.

7.4.2 A dedicated communications team, drawing upon expertise in communications, public relations, media relations, and transport planning from HC, will be

established. This team will be tasked with achieving communication objectives and timely dissemination of information to relevant stakeholders through appropriate channels. Regular progress updates, including monitoring and evaluation of the scheme, will be incorporated into communications overseen by the Programme Coordination Manager.

Herefordshire Council

Title: Work Programme 2026-27

Meeting: **Connected Communities Scrutiny Committee**

Meeting date: **Monday 20 July 2026**

Report by: **Statutory Scrutiny Officer**

Classification

Open

Report purpose

The report:

- Provides the committee with a draft work programme for the committee, for approval.
- Provides the committee with a copy of the council's forward plan of key decisions to assist the committee in deciding its programme of work.
- Lists the recommendations made by the committee since January 2025, and any responses to these recommendations.

Background

1. A fundamental part of good scrutiny is planning and agreeing a programme of work for the committee to undertake. A well-considered work programme:
    a. identifies priorities for the committee's work that align with corporate and partnership priorities, as well as reflecting community concern;
    b. ensures that each identified topic has clear objectives that focus the committee's work;
    c. creates a timetable for the committee's programme of work so that the committee carry out its work at the optimal time; and
    d. provides officers and partners with requirements for evidence that will support the committee in providing evidence-based scrutiny.

Meeting objectives

2. To agree the committee's work programme.

3. To note the work programmes of Herefordshire Council's other scrutiny committees.

Report information

4. The most recent work programme was published July 2026 and is attached as Appendix 1.

5. Attached as Appendix 2 to this report is the council's most recently published forward plan of key decisions.

Further information on the subject of this report is available from
Danial Webb, Statutory Scrutiny Officer, email: danial.webb@herefordshire.gov.uk

6. Appendix 3 is a list of all recommendations made by the committee in 2025 and 2026.

Consultees

7. To prepare this work programme, the committee chairs have met with officers of the council to identify potential priority areas of work for the committee. These priority areas have been scheduled within the work programme to ensure the committee considers topics when it is most useful to do so. A draft of this work programme has then been circulated to the council's corporate leadership team and other key senior directors, alongside committee chairs, for further comment and refinement.

Appendices

Appendix 1 – Scrutiny Work Programme July 2026
Appendix 2 – Herefordshire Council Forward Plan 03 July 2026
Appendix 3 – Recommendations made by Connected Communities Scrutiny Committee in 2025 and 2026.

Background papers and resources

None

Herefordshire Council

APPENDIX 1

SCRUTINY WORK PROGRAMME

July 2026 – March 2027

Below are the work programmes of Herefordshire Council's five scrutiny committees and their six task and finish groups.

Work programmes are subject to change, with revised programmes agreed at the end of formal committee meetings.

Please note that no meetings will be scheduled after March 2027 until after the 2027 Council elections have concluded.

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Committee work programme

Committee Meeting

22 July 2026 report deadline 14 July 2026 pre meeting lines of enquiry planning 17 July 2026

Topic and Objectives	Evidence required	Attendees*
Families First Programme • Scrutinise changes to services and the support offer for families as part of the Families First reforms. • Scrutinise early outcomes from the implementation of service changes.	• Officer report	• **Dawn Knight, Service Manager Early Help** • Lindsay MacHardy, Public Health Principal • *Core members of the steering group*
Early Help Task and Finish Group • Review group findings and recommendations	• Final group report	• **Chair, Children and Young People Scrutiny Committee**
Work programme • Review work programme	• Draft work programme	• **Statutory Scrutiny Officer**

Committee Meeting

6 October 2026 report deadline 28 September 2026 pre meeting lines of enquiry planning 2 October 2026

Topic and Objectives	Evidence required	Attendees*
Alternative provision • Review of capital programme relating to alternative provision • Overview of existing provision	• Officer report	• **Liz Farr** • Louise Tanner, Head of Learning and Achievement • Hilary Jones, Head of Additional Needs • Jane Morse - Commissioning

Topic and Objectives	Evidence required	Attendees*
Youth Strategy	• Draft strategy	• **Tina Russell** • **Hereford Rural Media** • **Will Lindsey HVOSS** • **Lindsay McHardy**
Work programme • Review work programme	• Draft work programme	• **Statutory Scrutiny Officer**

Topics for possible future scrutiny

- Included in the programme
- Participation strategy
- Housing
- School place planning
- Fostering (generally)
- Welfare and Education Bill (ref to SEND reforms)

Early help task and finish group

Terms of reference

Background

Herefordshire's Early Help offer includes both universal and targeted services aimed at supporting children, young people, and families before statutory intervention is required. The offer includes:

- **Universal services**: Provided largely through Talk Community, voluntary and community organisations, schools, health, and public health-funded initiatives.
- **Targeted early help**: Led by the Early Help team within Children's Services, working directly with families who require structured support.

Key developments in this area in recent years include:

- Integration of Early Help into wider Children's Services through locality models.
- Introduction of Families First and Lead Practitioner roles.
- Recruitment of two new children's-focused community development workers within Talk Community.
- Partnership commissioning (such as with the PCC) to support local early intervention initiatives.

To build on these developments, work is underway to identify and address weaknesses in current practice, including:

- Persistent confusion around distinctions between universal and targeted Early Help.
- Limited public visibility of the Early Help offer and recent developments.
- Variability in provision and access across different localities.
- Pressure on schools to deliver Early Help without sufficient funding or infrastructure.
- Need for improved coordination between statutory and non-statutory partners.

Purpose

The group therefore aims to provide a constructive and collaborative space to:

- Recognise strengths in current Early Help provision.
- Identify good practice across different communities.
- Highlight gaps or inconsistencies in provision and the work in place to address them.

Scope of Inquiry:

In recognition of the broad and varied nature of early help available in Herefordshire, the group intends to carry out two distinct but closely interdependent streams of work:

- **Targeted Early Help and Families First**
  - Understanding the Families First implementation.
  - Exploring the role of lead practitioners.
  - Clarifying the role of schools and multi-agency collaboration.
- **Community and Universal Offer**
  - Mapping and showcasing local Early Help initiatives.
  - Exploring partnerships with Talk Community hubs, voluntary groups, parish and town councils.
  - Engagement around youth activities, access barriers (transport), and local innovation.

Work Programme

The group will determine its programme of work to meet the above objectives. This programme will include:

- Local Appreciative Inquiry events in Hereford City Ross, and Leominster, supported by Talk Community and Children's Services.
- Case studies
- Meeting with families and professionals, individually and in focus groups

Work programme

Targeted early help and Families First

- Recognise strengths in current Early Help provision.
- Identify good practice across different communities.
- Highlight gaps or inconsistencies in provision and the work in place to address them.

Guide:

Not completed and overdue	Partially completed and overdue	On track	Completed

Objective	Evidence required	Responsible officer	Date
Understand targeted early help - rationale and performance	• Overview of programme briefing note ○ Thresholds of need ○ Current performance management ○ Current programme of activity	Simon Cann	November 2025
Overview of current Families First programme and targeted early help	• Meeting with service managers ○ Victoria Leader ○ Dawn Knight	Simon Cann	15 Dec 2026, 3pm
Update on implementation of Families First programme and targeted early help	• Meeting with service managers ○ Dawn Knight	Simon Cann	14 or 19 May 2026
Support for young carers, no wrong door	• Meeting with young carers ○ Jane Marshall – South – Ross and VL, John Burgess, Susan Brace, Niall Crawford	Simon Cann	2 Mar 2026, 3pm
Appraise locality-based targeted early help	• Meeting with a locality team ○ Victoria Roe – North ○ Jane Marshall – South – Ross ○ Chantelle Bennett – Central	Simon Cann	16 Jan 2025, 3pm

Objective	Evidence required	Responsible officer	Date
	○ Tracey Spencer – Central		
Working with schools	• Meeting with schools ○ Neil Crawford	Simon Cann	21 Jan 2026, 3pm
Commissioned targeted early help services	• Meeting with Venture – commissioned service ○ Hilary Thomas hilary.thomas@vennture.org	Simon Cann	27 Feb 2026, 1pm

Community and Universal Offer

- Mapping and showcasing local Early Help initiatives.
- Exploring partnerships with Talk Community hubs, voluntary groups, parish and town councils.
- Engagement around youth activities, access barriers (transport), and local innovation.

Topic	Evidence required	Responsible officer	Date
Overview of local early help initiatives	Early help marketplace – Ross-on-Wye	Danial Webb	13 Oct 2025
Overview of local early help initiatives	Early help marketplace - Hereford	Danial Webb	17 Nov 2025
Overview of local early help initiatives	Early help marketplace - Leominster	Danial Webb	3 Dec 2025
Understand how midwives support young parents to be.	• Meeting with midwives • Emily Strange (named safeguarding midwife) • Sian Jenkins (community Midwife manager)	Simon Cann	20 Mar 2026
The role of school nurses	• Meeting with school nurses ○ emma.dewar@wvt.nhs.uk ○ Wendy.Long@wvt.nhs.uk ○ Nikki.Lawley@wvt.nhs.uk	Simon Cann	8 May 2026
The role of health visitors	• Meeting with health visitors ○ Lyndsay McHardy, Julia Stephens -0-19 Strat.	Simon Cann	17 Mar 2026

Topic	Evidence required	Responsible officer	Date
	○ Hannah Bannister-White • "Best Start in Life" strategy		
Youth clubs overview	• Overview of youth and sports clubs in Herefordshire • Visit to youth club • Meeting with youth club attendees • HVOSS Will Lindesay	Simon Cann	9 April 2026
Talk Community and co-ordination of support for universal community services	• Overview community support carried out by Talk Community. • Nikki Stroud, Emily Lowe, Michelle Trussler, Abigail Allcock	Simon Cann	21 April 2026

Report to Cabinet

Topic	Evidence required	Responsible officer	Date
Draft final report	Learning from above meetings		July 26
Agree final report	Draft report	Task and Finish Group	22 July 26
Present to Cabinet	Final report	Toni Fagan	July 26

Connected Communities Scrutiny Committee

Committee work programme

Committee Meeting

7 July 2026 report deadline 29 June 2026 pre meeting lines of enquiry planning 2 July 2026

Topic and Objectives	Evidence required	Attendees*
Year of delivery – capital projects • Mid-year review of capital projects taking place in 2026. • Scrutinise project budgets.	• Council capital programme • Individual programme progress reports • Capital delivery programme	• **Service Director, Economy and Growth** • Director of Resources
Work programme • Review work programme	• Draft work programme	• **Statutory Scrutiny Officer**

Committee Meeting

20 July 2026 report deadline 10 July 2026 pre meeting lines of enquiry planning 16 July 2026

Topic and Objectives	Evidence required	Attendees*
Hereford Bypass Phase One – full business case • Scrutinise the full business case to ensure it provides Cabinet with sufficient information to make an informed decision on Hereford Bypass Phase One, having regard to the assessment criteria.	• Hereford Bypass Phase One full business case. • Assessment criteria for the full business case.	• **Delivery Director, Infrastructure** • **Representative AECOM** • **Expert Witness** • **Bypass Phase One Project Manager**
Public participation in planning task and finish group • Verbal update from the group chair	• Verbal update	• None

Topic and Objectives	Evidence required	Attendees*
Work programme • Review work programme	• Draft work programme	• **Statutory Scrutiny Officer**

Committee Meeting
22 September 2026 report deadline 14 September 2026 pre meeting lines of enquiry planning TBC 2026

Topic and Objectives	Evidence required	Attendees*
UK Shared Prosperity Fund • Review of projects funded • Examine future funding opportunities	• TBC	• **Service Director, Economy and Growth**
Public participation in planning task and finish group • Review final report • Agree report recommendations	• Final report	• **Statutory Scrutiny Officer**
Work programme • Review work programme	• Draft work programme	• **Statutory Scrutiny Officer**

Committee Meeting
27 January 2027 report deadline 19 January 2027 pre meeting lines of enquiry planning TBC

Topic and Objectives	Evidence required	Attendees*
Year of delivery – capital projects • End of year review of capital projects taking place in 2026.	• Council capital programme • Individual programme progress reports	• **To be determined**

*The Corporate Director, Economy and Environment, Cabinet Member, Economy and Growth, Cabinet Member, Community Services and Assets, Cabinet Member, Roads and Regulatory Services, and Cabinet Member, Transport and Infrastructure, all have a standing invitation to the meeting.

Placemaking and Public Participation task and finish group

Terms of reference

Background

Herefordshire is entering a significant period of growth and change. Delivering new housing, infrastructure, and services must strengthen local communities and reflect the county's distinctive rural character.

Research shows that while public involvement in planning is vital, engagement often remains procedural rather than meaningful. Many residents feel disconnected from decision-making, uncertain about how to participate, or unconvinced that their input makes a difference.

The Planning and Compulsory Purchase Act 2004 requires every local planning authority such as Herefordshire to publish a Statement of Community Involvement. The Levelling-up and Regeneration Act 2023 and resultant secondary legislation is likely to place greater emphasis on this statement with a proposed requirement for a local planning authority Community Involvement Scheme. This provides a timely opportunity to modernise Herefordshire's existing Statement of Community Involvement (January 2022), ensuring it reflects Herefordshire Council's 2024–2028 priorities for economic growth and community development.

This task and finish group will explore how Herefordshire can plan with its communities, ensuring that growth, infrastructure and environment evolve together in a fair, transparent, and creative way. It will then make recommendations to underpin the Council's new statutory engagement framework.

The aim is to move beyond statutory minimum consultation and create a culture in which residents look forward to new development as something they have helped to shape. Growth with, not to, communities.

Purpose

To identify and recommend practical, evidence-based measures for making community engagement in planning and placemaking more inclusive, accessible, and effective across Herefordshire. The group will:

- Examine best practice and innovative approaches to public participation.
- Advise on the update and replacement of the Statement of Community Involvement (2022) with a new Community Involvement Scheme (2026).
- Ensure that community voice and cultural engagement sit at the heart of the county's future planning system.

Objectives

- To understand current legislation and good practice in community involvement and evaluate how residents currently engage with planning in Herefordshire and identify barriers to participation.
- Review and learn from good practice in community engagement in other local authorities and with housing providers.
- Inform and help draft the replacement of the Statement of Community Involvement (2022) with a new Community Involvement Scheme (2026)
- Make recommendations to the Connected Communities Scrutiny Committee and Cabinet to deliver the above.

Scope

The task and finish group will focus on how communities are involved in shaping growth, not on what is built or where sites are allocated. It will not duplicate the work of the Housing Development Working Group or the technical drafting of the Local Plan.

Membership and Governance

- 5–7 elected members of Herefordshire Council (no Cabinet members).
- Up to two co-opted members with relevant expertise or community experience.
- Supported by officers from Democratic Services, Economy and Environment, and Communications.
- Reports through the Connected Communities Scrutiny Committee, which will submit recommendations to Cabinet for formal response.

Expected Outputs

- A final report setting out
    - practical recommendations for improving public participation in planning and placemaking.
    - A proposed structure and content outline for Herefordshire's new Community Involvement Scheme (2026), replacing the 2022 Statement.
    - Case studies and prototypes demonstrating innovative engagement methods suitable for rural and market-town contexts.

Success Measures

- At least five examples of national or local best practice reviewed.
- Two or more new engagement methods agreed or trialled.
- Clear, costed recommendations adopted within the 2026 Community Involvement Scheme.
- Cabinet adoption of group recommendations into council policy.

WORK PROGRAMME

Guide:

Not completed and overdue	Partially completed and overdue	On track	Completed

Objective To understand current legislation and good practice in community involvement and evaluate how residents currently engage with planning in Herefordshire and identify barriers to participation.

Objectives	Evidence required	Responsible officer	Date
Understand current legislation and good practice in community involvement	• Overview of The Planning and Compulsory Purchase Act 2004 • Overview of The Levelling-up and Regeneration Act 2023 • Good practice guidance		November 2025
Evaluate how residents currently engage with planning in Herefordshire.	• Herefordshire Council Statement of Community Involvement. • Interviews with housing associations and council planning officers.		November 2025
Identify current barriers to participation.	• Interviews with housing association, community groups and council planning officers.		November 2025
GROUP MEETING		**Henry Merricks Murgatroyd**	**November 2025**

Objective Review and learn from good practice in community engagement in other local authorities and with housing providers.

Objectives	Evidence required	Responsible officer	Date
Examine requirements for new Community Involvement Scheme	• Draft regulation and statutory guidance		December 2025

Objectives	Evidence required	Responsible officer	Date
Identify good practice in other local authorities	• Literature review • Site visit (if useful)		January 2026
Identify creative engagement methods.	• Desktop search ideas such as including digital tools, easy-read and visual materials, short videos, and cultural or media partnerships.		January 2026
GROUP MEETING			**February 2025**

Objective Inform and help draft the replacement of the Statement of Community Involvement (2022) with a new Community Involvement Scheme.

This section of the work of the task and finish group is paused due to legislative changes that will replace the Community Involvement Scheme.

Objectives	Evidence required	Responsible officer	Date
Work with officers to set new parameters and scope for the Community Involvement Scheme	• Draft Community Involvement Scheme	TBA	March 2026
Ensure inclusivity by improving reach to rural residents, younger people, working families, and under-represented communities.	• Draft Community Involvement Scheme	TBA	April 2026
Recommend resourcing and governance arrangements to support sustained, meaningful participation.	• Meeting with planning officers in a 'good' local planning authority • Draft recommendations		May 2026
GROUP MEETING			May 2026

Objective Make recommendations to the Connected Communities Scrutiny Committee and Cabinet

Objectives	**Evidence required**	**Responsible officer**	**Date**
Draft report to committee	• Draft report		September 2026
Draft report and recommendations to Cabinet (if required)	• Final report		October 2026

Environment and Sustainability Scrutiny Committee

Committee work programme

Committee Meeting
21 September 2026 report deadline 11 September 2026 pre meeting lines of enquiry planning 17 September 2026

Topic and Objectives	Evidence required	Attendees*
Transformation of the economy and environment directorate • Understand the transformed leadership structure and how it is performing currently, in particular where responsibility for delivering on the council's environmental priorities and targets, including net zero. • Has embedding a commercial mindset impacted on the delivery of these environmental priorities and targets. • Has transformation impacted on the overall resource dedicated to the environmental side of the directorate. • Explore the case for a more distinct operational area for environmental matters under the Corporate Director.	• Officer report • List of environmental projects currently undertaken by Herefordshire Council.	• **John Hobbs, Corporate Director Environment and Economy**
Buses and passenger services task and finish group • To receive the final report from the group and consider their recommendations, including testing the evidence on which they are based. • To agree a set of recommendations to go forward from the committee to the executive.	• Final report	• **Cllr Justine Peberdy, Chair - buses and passenger services task and finish group**
Flooding spotlight review – terms of reference • To agree the terms of reference for a proposed spotlight review to scrutinise flood risk management and flood emergency responses.	• Spotlight review terms of reference	• **Statutory Scrutiny Officer**

*The Corporate Director, Economy and Environment and Cabinet Member, Environment, both have a standing invitation to the meeting.

Committee Meeting

2 December 2026 report deadline 24 November 2026 pre meeting lines of enquiry planning 27 November 2026

Topic and Objectives	Evidence required	Attendees*
Rail Strategy • Objectives to be agreed.	• Evidence to be agreed	• John Hobbs • Ffion Horton • Roger Allonby • David Land
Herefordshire Council Carbon Management Plan • Objectives to be agreed. • Council-installed solar panels	• Carbon Management Plan • Cabinet paper (if available)	• Richard Vaughan • Daniel Lenain

Prospective spotlight review

March 2027

Topic and Objectives	Evidence required	Attendees*
Flooding and flood risk management • Terms of reference to be agreed.	• Evidence to be agreed	• John Hobbs • Other TBC

Bus and passenger services task and finish group

Work programme

Guide:

Not completed and overdue	Partially completed and overdue	On track	Completed

Objective	Activity or information needed	Carried out by	Timeline
Initial review meeting		**Task and Finish Group**	**July 2025**
Create a central information repository	Setup Teams library and chat space	Simon Cann, Danial Webb	September 2025

Review Herefordshire Council's current powers and responsibilities.	Compile and provide overview of
	• Existing legislation in England and Wales
	  ○ Local Transport Act 2008
	  ○ Transport Act 2000
	  ○ Bus Service Act 2017
	  ○ Bus Services (No. 2) Bill
	  ○ Public Service Vehicle Regulations.
	• Overview of who is responsible for local transport in England (Commons library)
	• Any allied statutory guidance
	• Bus operator legislation and guidance.
	• How these apply in Herefordshire.
		Simon Cann, David Land, Craig Lewis, Natalie Amos, task and finish group	Sep-Oct 2025

Objective	Activity or information needed	Carried out by	Timeline

Review current passenger transport operations in Herefordshire and how they meet current and future need.	• Previous council bus service reviews (c. 2019)
	• For both commercial and community operators
	  ○ Routes and frequency
	  ○ Passenger numbers
	  ○ Subsidy
	• Home to school transport
	  ○ Current services provided
	  ○ Current providers
	• SEND transport
	• Adult Social Care Passenger transport
		Simon Cann, David Land, Craig Lewis, Natalie Amos	Sep-Oct 2025

Current local authority and regional funding	2025-2026 and medium-term funding • subsidised routes • community transport • other transport funding provided by the local authority	Simon Cann, David Land, Craig Lewis, Natalie Amos	Sep-Oct 2025
Review Meeting		**Task and Finish Group**	**21 October 2025**
Overview of current BSIP funding	Summary of • National Bus Strategy • Herefordshire Bus Service Improvement Plan 2024 Briefing on • Allocation of the £3.2m BSIP grant (2025–26) (£1.3m capital, £1.9m revenue) e.g., shelters, passenger experience, supported services • Progress in delivering funded projects and services • Their contribution to improved services Site visit to any BSIP-related capital project	Simon Cann, David Land, Craig Lewis, Natalie Amos	Nov-Dec 2025
Assess Enhanced Partnership performance	• Understand how the current enhanced partnership timetabling meets the objectives of the partnership.	Simon Cann, David Land, Craig Lewis,	Nov-Dec 2025

Objective	Activity or information needed	Carried out by	Timeline
	• Identify ways to apply learning from the group to new ways of meeting the objectives of the enhanced partnership.	Natalie Amos, task and finish group	
Combining bus services with other transport services	Desktop research • Current rail services and how they align with bus services Group meeting • Network Rail or other responsible authority	Simon Cann, David Land, Craig Lewis, Natalie Amos	Nov-Dec 2025
Explore cross-border and cross-county transport	Map and list of current cross-border services to include • Frequency • Operator • Funding (if applicable) Examples from other local authorities • See previous work looking at other local authorities • Identify opportunities for any cross-border service support	Simon Cann, David Land, Craig Lewis, Natalie Amos	Nov-Dec 2025
Review Meeting		**Task and Finish Group**	**11 December 2025**
Community Transport	Site visits to community transport providers. Attendance at bus service forum. Overview brief of Services in Herefordshire, to include: • Current services, routes and frequencies • Cost • Funding	Simon Cann, David Land, Craig Lewis, Natalie Amos	Jan-Mar 2026
Home to school and other resident transport	Overview brief of home to school services in Herefordshire, to include: • Current services, routes and frequencies • Cost and funding	Simon Cann, David Land, Craig Lewis, Natalie Amos	March 2026

Objective	Activity or information needed	Carried out by	Timeline
	Meeting with Home to school co-ordinator Meeting with Transformation team		
Review Meeting		**Task and Finish Group**	**26 March 2026**

Examine how other rural local authorities provide sustainable services.	Internet research – what do they do in other rural local authorities?
	Suggested workstreams:
	• Demand Responsive transport
	  ○ YorBus, CallConnect
	  ○ Worcestershire on Demand | Worcestershire County Council
	  ○ The Robin (your bookable bus) | Gloucestershire County Council
	• Use of powers of funding
	  ○ Use of enhanced partnerships – Oxfordshire, Cornwall
	  ○ Branding
	• Integrating transport and social care
	  ○ Community transport
	  ○ The role of third sector organisations
	Site Visit
	• Shropshire DRT – Shrewsbury
	• Social care focused visit
		Simon Cann, David Land, Craig Lewis, Natalie Amos	June 2026

Bus franchising	Overview of Bus Services Bill Overview of approach taken by other local authorities Meeting with consultants or another local authority • What are the barriers to franchising in rural areas? • Is this an opportunity for Herefordshire to pursue? • Are there partnership opportunities with other local authorities?	Simon Cann, David Land, Craig Lewis, Natalie Amos	June 2026
Review Meeting		**Task and Finish Group**	**June/July 2026**

Objective	Activity or information needed	Carried out by	Timeline
Draft report and recommendations	• Draft final report • Draft recommendations	Simon Cann, David Land, Craig Lewis, Natalie Amos	September 2026
Present report to Environment and Sustainability Scrutiny Committee		**Task and Finish Group**	**September 2026**

Health Care and Wellbeing Scrutiny Committee

Committee work programme

Committee Meeting

27 July 2026 report deadline 17 July 2026 pre meeting lines of enquiry planning 23 July 2026

Topic and Objectives	Evidence required	Attendees*
Joint Strategic Needs Assessment • Review work to develop a new joint strategic needs assessment for Herefordshire.	• Joint Strategic Needs Assessment	**Zoe Clifford, Director of Public Health** **Charlotte Worthy, Lead Public Health Intelligence Analyst**
Adult Mental Health Acute Inpatient and Rehabilitation Services • an update on the progress of the Adult Mental Health Rehabilitation Redesign and Acute Inpatient Improvement Programme	• Update report	**Herefordshire And Worcestershire Health and Care NHS Trust**
Adult Social Care budget outturn • Scrutinise financial outturn against budget • Scrutinise performance against the performance management framework	• Quarterly budget outturn and performance monitoring	**Hilary Hall, Corporate Director, Community Wellbeing**
Work programme • Review work programme	• Draft work programme	**Statutory Scrutiny Officer**

Committee Meeting
14 September 2026 report deadline 4 September 2026 pre meeting lines of enquiry planning 10 September 2026

Topic and Objectives	Evidence required	Attendees*
Right Care Right Place • Update on work to deliver acute community mental health support in Herefordshire.	• Evidence to be agreed	**Gareth Morris, West Mercia Police** **Zoe Clifford, Director of Public Health**
Meeting the demand for adult social care task and finish group • Agree draft report and recommendations	• Final task and finish group report	**Chair, task and finish group**
Adult Social Care budget outturn • Scrutinise financial outturn against budget savings plans	• Quarterly budget outturn and performance monitoring	**Hilary Hall, Corporate Director, Community Wellbeing**
Work programme • Review work programme	• Draft work programme	**Statutory Scrutiny Officer**

Committee Meeting
14 December 2026 report deadline 4 December 2026 pre meeting lines of enquiry planning December 2026

Topic and Objectives	• Evidence required	Attendees*
Shaping neighbourhood health • Analyse how the health partnership identifies health needs in communities. • Scrutinise provision of current and future neighbourhood health services.	• 2Neighbourhood health bid • Taurus Out of Hours GP service • Worcestershire Council papers	**Zoe Clifford, Director of Public Health**
Adult Social Care budget outturn • Scrutinise financial outturn against budget savings plans	• Quarterly budget outturn and performance monitoring	**Hilary Hall, Corporate Director, Community Wellbeing**
Work programme • Review work programme	• Draft work programme	**Statutory Scrutiny Officer**

*The Corporate Director, Community Wellbeing and Cabinet Member Adults, Health and Wellbeing, both have a standing invitation to the meeting.

Meeting the demand for adult social care task and finish group

Work programme

Guide:

Not completed and overdue	Partially completed and overdue	On track	Completed

Objective To understand the extent of demand for adult social care services provided or commissioned in Herefordshire, and the likely change over time.

Objectives	Evidence required	Responsible officer	Date
Understand Herefordshire's demographics and future demographic change	Demographic information • *Understanding Herefordshire* demographic data • *Future population of Herefordshire* report • Joint Strategic Needs Assessment report	Charlotte Worthy/Herefordshire Research team	Dec 25-Jan 26

Understand the demand for adult social care in Herefordshire	• *Market Position Statement*
	• *Market Sustainability Plan*
	• Current rates of demand for adult social care
	  ○ Type of demand (domiciliary, residential, nursing)
	  ○ Duration
	  ○ Change over time
		Zakia Loughead	Dec 25-Jan 26

Compare demographic change and demand for adult social care compared to other local authorities	• Desktop research comparison with 'statistical neighbours'	Danial Webb/Henry Merricks-Murgatroyd	Dec 25-Jan 26
GROUP MEETING		**Henry Merricks-Murgatroyd**	**26 February 2026**

Objective To explore the drivers of increased demand for adult social care, and the capacity of the local authority and other care providers to meet it.

Objectives	Evidence required	People to speak with	Date
Increased complexity of demand from an ageing population	Site visit – supported housing provider Site visit – third sector organisation working with older adults		Feb-Mar 26
The nature of funding for social care	Briefing on social care funding	Zakia Loughead ASC finance team	Feb-Mar 26
The size and structure of the social care market in Herefordshire	Overview of social care market Meeting with care providers	Zakia Loughead	Feb-Mar 26
Lack of housing growth, and flatlining tax base	• Interview with Cabinet portfolio holders		Feb-Mar 26
GROUP MEETING		**Henry Merricks-Murgatroyd**	**22 April 2026**

Objective To identify strategies and work carried out by Herefordshire Council and partners such as housing associations and other organisations reduce demand for social care services, or to increase revenue to pay for services.

Objectives	Evidence required	People to speak with	Date
Assistive technology	Visit to Technology Enabled Care Services (TECS) Team	TBC	May-Jun 26
Community based universal and targeted services	Meeting with Talk Community Meeting with third sector organisation Meeting with other community team in another local authority	Emily Lowe – Talk Community	May-Jun 26

Objectives	Evidence required	People to speak with	Date
Market shaping and support	Meeting – service director Meeting – care providers' network	Commissioning	May-Jun 26
Supported living	Meeting – director for housing support Visit to supported housing	Hayley Crane A supported housing provider	May-Jun 26
In-house services and the role of Hoople	Case study – Essex Meeting with Hoople		May-Jun 26
GROUP MEETING		**Henry Merricks-Murgatroyd**	**July 2026**

Objective To make recommendations to the executive on steps that should be taken to reduce service demand and to increase revenue.

Objectives	Evidence required	People to speak with	Date
Write draft report and recommendations	Draft report and recommendations	Task and finish group	August 2026
Agree draft report and recommendations with committee	Draft report and recommendations	Task and finish group	September 2026

Scrutiny Management Board

Committee work programme

Committee Meeting

3 July 2026 report deadline 25 June 2026 member briefing 22 June 2026 pre meeting lines of enquiry planning 30 June 2026

Topic and objective	Evidence required	Attendees
Adult Social Care • Scrutinise the recent CQC inspection report on adult social care. • Further scrutinise the council's budget and its plan for service transformation in light of budget pressures and the inspection findings.	• Herefordshire Council CQC local authority assessment • Herefordshire Council CQC improvement plan 2026-27 • Adult Social Care Demand Task and Finish Group interim report • Community Wellbeing 2026-27 budget position statement • 2025-26 revenue outturn • 2025-26 savings outturn • 2025-26 capital outturn	**Hilary Hall, Corporate Director Community Wellbeing** **Rachael Sanders, Director of Finance**
Dedicated Schools Grant High Needs Block Management Plan • Review the draft management plan	• Management Plan	**Rachael Sanders, Director of Finance** **Liz Farr, Service Director, Education**
Work programme • Review work programme	• Draft work programme	**Statutory Scrutiny Officer**

Committee Meeting

September 2026 report deadline TBC 2026 member briefing TBC pre meeting lines of enquiry planning TBC

Topic and objective	Evidence required	Attendees
Inequalities task and finish group final report • Agree final report	• Final report	**Statutory Scrutiny Officer**
Commercialisation task and finish group final report • Agree final report	• Final report	**Statutory Scrutiny Officer**
Annual review of effectiveness • Agree final report	• Scrutiny annual review	**Statutory Scrutiny Officer**
Hoople spotlight review terms of reference	• Terms of reference	**Statutory Scrutiny Officer**
Work programme • Review work programme	• Draft work programme	**Statutory Scrutiny Officer**

Committee Meeting

1 December 2026 report deadline 23 November 2026 member briefing 24 November 2026 pre meeting lines of enquiry planning 27 November 2026

Topic and objective	Evidence required	Attendees
Work programme • Review work programme	• Draft work programme	**Statutory Scrutiny Officer**

Long list of potential topics

- Social Value in procurement
- Working with the voluntary sector and others to help deliver services
- Review of the workforce strategy
- Supplier risk management
- Emergency Planning
- Medium-Term Financial Strategy

HEREFORDSHIRE COUNCIL FORWARD PLAN

This document, known as the Forward Plan, sets out the decisions which are expected to be taken during the period covered by the Plan by either Cabinet as a whole, or by individual Cabinet Members. The Plan is updated regularly and is available on the Herefordshire Council website (www.herefordshire.gov.uk) and from Council Offices. This edition supersedes all previous editions.

The council must give at least 28 days' notice of key decisions to be taken. A key decision is one which results in the council incurring expenditure or making savings of £500,000 or more, and/or is likely to be significant in terms of the strategic nature of the decision or its impact, for better or worse, on the amenity of the community or quality of service provided by the council to a significant number of people living or working in the locality affected.

Current cabinet members are listed below. For more information and links papers for Cabinet meetings please visit https://councillors.herefordshire.gov.uk/mgCommitteeDetails.aspx?ID=251

Councillor Jonathan Lester	Corporate Strategy and Budget (Leader of the Council)
Councillor Elissa Swinglehurst	Culture and Environment (Deputy Leader of the Council)
Councillor Carole Gandy	Adults, Health and Wellbeing
Councillor Ivan Powell	Children and Young People
Councillor Harry Bramer	Community Services and Assets
Councillor Graham Biggs	Economy and Growth
Councillor Pete Stoddart	Finance and Corporate Services
Councillor Barry Durkin	Roads and Regulatory Services
Councillor Philip Price	Transport and Infrastructure
Councillor Dan Hurcomb	Local Engagement & Community Resilience

Documents submitted in relation to each decision will be a formal report, which may include one or more appendices. Reports will usually be made available on the council website at least 5 clear working days before the date of the decision. Occasionally it will be necessary to exempt part or all of a decision report from publication due to the nature of the decision, for example if it relates to the commercial or business affairs of the council. Other documents may be submitted in advance of the decision being taken and will also be published on the website unless exempt.

To request a copy of a decision report or related documents please contact governancesupportteam@herefordshire.gov.uk or telephone 01432 261699.

Report title and purpose	Decision Maker and Due date	Lead officer and lead cabinet member	Directorate	Notice of decision first published / ID	Issue Type and exemptions

FORWARD PLAN FOR 3 July 2026 ONWARDS

The following information is provided for each entry in the Forward Plan:

Heading	Contains
Report title and purpose	A summary of the proposal
Decision Maker and Due date	Who will take the decision and the date the decision is expected to be made
Lead cabinet member and officer contact(s)	The cabinet member with responsibility for this decision and the officers producing the decision report.
Directorate	The directorate of the council responsible for the decision.
Date uploaded onto plan	The date the decision was first uploaded and the notice period started for key decisions.
Decision type, exemptions and urgency	Whether the decision is a Key or Non-Key decision, if the report is expected to be fully open, partly exempt or fully exempt and if urgency procedures are being followed.

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Decisions to be taken by Cabinet at a formal meeting are listed first, ordered by date, and include both Key and Non-Key decisions. Decisions to be taken by individual Cabinet Members are then listed, grouped by portfolio area and sorted by date. These include Key and Non-Key decisions.

Report title and purpose	Decision Maker and Due date	Lead cabinet member and officer contact(s)	Directorate	Date uploaded onto plan	Decision Type, exemptions and urgency
Cabinet decisions by date (Key and Non-key listed)					
Big Economic Plan Delivery Plan (previously known as the Big Economic Plan) To consider and approve the Big Economic Delivery Plan	Cabinet 30 July 2026	Cabinet member economy and growth Nadine Kinsey, Economic Development Manager nkinsey@herefordshire.gov.uk	Economy and Environment	26 June 2026	**KEY** Open
Children's Services Statutory Direction The Secretary of State issued Herefordshire Council with a statutory direction and appointed a Commissioner for Children's Services following the inadequate judgement of its children's services in July 22. Following the inspection of children's services in November 25 which saw a judgement of Good in all areas with Outstanding in leadership the commissioner has now completed their final report. That report makes a recommendation to the Secretary of State that the statutory direction is lifted.	Cabinet 30 July 2026	Cabinet member children and young people Diane Kennett, Executive Assistant To Management Board Diane.Kennett@herefordshire.gov.uk Tel: 01432 383744	Children and Young People	26 June 2026	**Non Key** Open

Report title and purpose	Decision Maker and Due date	Lead cabinet member and officer contact(s)	Directorate	Date uploaded onto plan	Decision Type, exemptions and urgency
Corporate Peer Challenge Progress Review To receive the report on the outcome of the Local Government Association Corporate Peer Challenge Progress Review, held on 28 May 2026, and to endorse the continued delivery of the council's action plan in response to the original recommendations.	Cabinet 30 July 2026	Cabinet member corporate strategy and budget Hilary Hall, Corporate Director Community Wellbeing, Caroline Marshall, Executive Support Officer Hilary.Hall@herefordshire.gov.uk, caroline.marshall3@herefordshire.gov.uk Tel: 01432 260249	Corporate Support Centre	26 June 2026	**Non Key** Open
CQC Assessment report and Improvement plan The purpose of this report is to present Cabinet with the outcome of the Care Quality Commission (CQC) Assessment and to approve Herefordshire's CQC Assurance improvement plan 2026-27	Cabinet 30 July 2026	Cabinet member adults, health and wellbeing Emma Evans, Head of Service Transformation & Improvement, Hilary Hall, Corporate Director Community Wellbeing Emma.Evans@herefordshire.gov.uk, Hilary.Hall@herefordshire.gov.uk Tel: 01432 260460,	Community Wellbeing	26 June 2026	**KEY** Open

Report title and purpose	Decision Maker and Due date	Lead cabinet member and officer contact(s)	Directorate	Date uploaded onto plan	Decision Type, exemptions and urgency
Food Waste Collection Implementation To approve the implementation of the food waste collection scheme	Cabinet 30 July 2026	Cabinet member culture and Environment Sabrina Entwistle, Project Manager- Waster Services, Nicola Percival, Waste Services Manager sabrina.entwistle@herefordshire.gov.uk, npercival@herefordshire.gov.uk Tel: 01432 260991	Economy and Environment	26 June 2026	**KEY** Part exempt
Herefordshire County Business Improvement District (HCBID) - Second Term Ballot To agree to vote in favour of the Herefordshire County Business Improvement District (HCBID) for the second, five year term (2026 – 2031).	Cabinet 30 July 2026	Cabinet member economy and growth Nadine Kinsey, Economic Development Manager nkinsey@herefordshire.gov.uk	Economy and Environment	26 June 2026	**KEY** Open

Report title and purpose	Decision Maker and Due date	Lead cabinet member and officer contact(s)	Directorate	Date uploaded onto plan	Decision Type, exemptions and urgency
Herefordshire Parking Strategy 2026 - 2041 (formerly non key) The purpose of this report is to seek Cabinet approval for the adoption of a new Parking Strategy for Herefordshire. This report presents the new Parking Strategy, which sets out the Council's long-term vision, principles and priorities for parking across Herefordshire. The strategy is intended to guide decision-making, investment, and operational practice for both on-street and off-street parking, ensuring that parking plays a supportive role within the wider transport network rather than operating in isolation. The strategy has been developed to align with the Local Transport Plan, the Council Plan and other relevant corporate and place-based priorities. It recognises the role parking plays in supporting town centres, tourism, freight and servicing, enabling access for disabled users and residents, and creating safe and attractive public spaces. It also reflects the increasing importance of integrating parking with sustainable travel choices, technological innovation, and efficient asset management.	Cabinet 30 July 2026	Cabinet member roads and regulatory services Ffion Horton, Transport Planning Services Manager ffion.horton@herefordshire.gov.uk	Economy and Environment	26 June 2026	**KEY** Open

Report title and purpose	Decision Maker and Due date	Lead cabinet member and officer contact(s)	Directorate	Date uploaded onto plan	Decision Type, exemptions and urgency
Hereford Bypass Phase One – Assessment Report To seek approval from Cabinet to award the construction contract to the preferred bidder and authorise spending against the capital budget to construct Phase One of the Hereford Bypass.	Cabinet 10 September 2026	Cabinet member transport and infrastructure Scott Tompkins, Delivery Director - Infrastructure scott.tompkins@herefordshire.gov.uk	Economy and Environment	26 June 2026	**KEY** Open
Q1 Performance Report To review performance for Quarter 1 (Q1) 2026/27 and to report the performance position across the council for this period.	Cabinet 24 September 2026	Cabinet member finance and corporate services Jessica Karia, Head of Corporate Performance and Intelligence jessica.karia@herefordshire.gov.uk Tel: 01432 260976	Corporate Support Centre	NEW ITEM	**Non Key** Open
To re-commission the home care framework in Herefordshire To approve the re-commissioning of the council's home care framework, called Services In Your Home (SIYH), in Herefordshire. The new SIYH framework needs to be operational by 1 May 2027.	Cabinet 24 September 2026	Cabinet member adults, health and wellbeing Sharon Amery, Senior Commissioning Officer sharon.amery2@herefordshire.gov.uk Tel: 01432 383734	Community Wellbeing	26 June 2026	**KEY** Open

Report title and purpose	Decision Maker and Due date	Lead cabinet member and officer contact(s)	Directorate	Date uploaded onto plan	Decision Type, exemptions and urgency
Travel Plan Strategy The purpose of this report is to seek Cabinet approval for an updated Travel Plan process for Herefordshire. The updated approach sets out a clearer, more consistent and outcome-focused process for the development, implementation and monitoring of travel plans across new developments, existing organisations and key trip-generating sites.	Cabinet 24 September 2026	Cabinet member transport and infrastructure Ffion Horton, Transport Planning Services Manager ffion.horton@herefordshire.gov.uk	Economy and Environment	26 June 2026	**KEY** Open
Update on the Phase 2 Phosphate Mitigation Schemes To provide Cabinet with an update regarding the Phosphate Mitigation Wetland schemes	Cabinet 24 September 2026	Cabinet member culture and Environment Roger Allonby, Service Director Economy and Growth, Gemma Dando, Chief Operating Officer, Scott Tompkins, Delivery Director - Infrastructure, Susan White, Programme Manager Roger.Allonby@herefordshire.gov.uk, gemma.dando@herefordshire.gov.uk, scott.tompkins@herefordshire.gov.uk, Susan.White2@herefordshire.gov.uk Tel: 01432 260330, , , Tel: 01432 260070	Economy and Environment	26 June 2026	**Non Key** Open

Report title and purpose	Decision Maker and Due date	Lead cabinet member and officer contact(s)	Directorate	Date uploaded onto plan	Decision Type, exemptions and urgency
Recommissioning of Drugs & Alcohol Recovery Services To obtain approval to recommission drug and alcohol recovery services in Herefordshire for an initial five-year period (2028–2033), with the option to extend the contract by a further two years. (2033–2035).	Cabinet 17 December 2026	Cabinet member adults, health and wellbeing Natalie Johnson-Stanley, Public Health Lead - Substance Misuse / Tobacco Natalie.Johnson-Stanley@herefordshire.gov.uk Tel: 01432 383230	Community Wellbeing	26 June 2026	**KEY** Open
Cabinet Member Decisions (Key and Non Key decisions)					
Portfolio: adults, health and wellbeing					
Proposed Model for Community Activities and rationalisation of Day Centre Provision This report seeks a decision from the Cabinet Member of Adults, Health and Wellbeing on proposals for change to community activities and day centres for working age and older adults with Care Act eligible needs.	Cabinet member adults, health and wellbeing 9 July 2026	Cabinet member adults, health and wellbeing Hannah Offord, Commissioning Manager hannah.offord@herefordshire.gov.uk Tel: 01432 260180	Community Wellbeing	26 June 2026	**KEY** Open

Report title and purpose	Decision Maker and Due date	Lead cabinet member and officer contact(s)	Directorate	Date uploaded onto plan	Decision Type, exemptions and urgency
To extend the council's current commissioned home care framework To approve an extension to the council's current commissioned home care framework for up to six months from 31 October 2026 to 30 April 2027.	Cabinet member adults, health and wellbeing 21 July 2026	Cabinet member adults, health and wellbeing Helen Davies, Commissioning Manager helen.davies3@herefordshire.gov.uk	Community Wellbeing	26 June 2026	**KEY** Open
Domestic Abuse Commissioning - 2026 To approve the recommissioning of domestic abuse services, via a competitive tendering process, commencing.	Cabinet member adults, health and wellbeing 31 July 2026	Cabinet member adults, health and wellbeing Wendy Dyer, Commissioning Officer Communities Wendy.Dyer@herefordshire.gov.uk Tel: 01432 261673	Community Wellbeing	26 June 2026	**KEY** Open

Report title and purpose	Decision Maker and Due date	Lead cabinet member and officer contact(s)	Directorate	Date uploaded onto plan	Decision Type, exemptions and urgency
Herefordshire Care Home Partnerships Framework To approve the procurement of a new multi provider partnership framework for the provision of care home placements and related services. The Council is looking to formalise partnership arrangements for a minimum of 500-550 placements across all providers. Estimated value of up to £320m across the framework term (maximum of 8 years).	Cabinet member adults, health and wellbeing Before 31 July 2026	Cabinet member adults, health and wellbeing Ros Murphy, Commissioning Manager, Community Wellbeing ros.murphy@herefordshire.gov.uk	Community Wellbeing	26 June 2026	**KEY** Open
Procurement of Sensory Impairment Service To approve the re-procurement of the Sensory Impairment Service for Herefordshire	Cabinet member adults, health and wellbeing 14 August 2026	Cabinet member adults, health and wellbeing John Burgess, Senior Commissioning Officer John.Burgess3@herefordshire.gov.uk	Community Wellbeing	26 June 2026	**KEY** Open

Report title and purpose	Decision Maker and Due date	Lead cabinet member and officer contact(s)	Directorate	Date uploaded onto plan	Decision Type, exemptions and urgency
Herefordshire Adult Social Care Prevention Strategy The purpose of the report is to approve the 2026-2036 Herefordshire Adult Social Care Prevention Strategy	Cabinet member adults, health and wellbeing 30 November 2026	Cabinet member adults, health and wellbeing David Collyer, Acting Consultant in Public Health: General Practitioner david.collyer2@herefordshire.gov.uk	Community Wellbeing	26 June 2026	**KEY** Open
Portfolio: children and young people					
Recommissioning of Children's Rights & Advocacy and Independent Visitors Services To approve the decision to recommissioning of Children's Rights & Advocacy and Independent Visitors Services	Cabinet member children and young people Before 31 July 2026	Cabinet member children and young people Ellie Jenkins, Commissioning Officer, All Age Mental Health / Wellbeing, Karen Stanton, Corporate Grant Lead - Corporate Support ellie.jenkins@herefordshire.gov.uk, kstanton@herefordshire.gov.uk Tel: 01432 260463	Children and Young People	26 June 2026	**KEY** Open
Portfolio: community services and assets					

Report title and purpose	Decision Maker and Due date	Lead cabinet member and officer contact(s)	Directorate	Date uploaded onto plan	Decision Type, exemptions and urgency
Establish a new Alternative Provision Centre capital spend To approve the spend of the capital allocation to establish a new Alternative Provision Centre	Cabinet member community services and assets 30 July 2026	Cabinet member community services and assets Quentin Mee, Head of Educational Development Quentin.Mee@herefordshire.gov.uk	Children and Young People	26 June 2026	**KEY** Open
Relocation of Herefordshire Pupil Referral Units Capital Spend To approve the spend of the capital allocation to relocate Herefordshire Pupil Referral Units onto a single site.	Cabinet member community services and assets 30 July 2026	Cabinet member community services and assets Quentin Mee, Head of Educational Development Quentin.Mee@herefordshire.gov.uk	Children and Young People	26 June 2026	**KEY** Open

Report title and purpose	Decision Maker and Due date	Lead cabinet member and officer contact(s)	Directorate	Date uploaded onto plan	Decision Type, exemptions and urgency
High Needs Provision Capital Grant spend To approve the spend of the High Needs Provision Capital Grant to extend our inclusion offer in mainstream schools and increase places for children with Special Educational Needs and Disabilities (SEND)	Cabinet member community services and assets 31 July 2026	Cabinet member community services and assets Quentin Mee, Head of Educational Development Quentin.Mee@herefordshire.gov.uk	Children and Young People	NEW ITEM	**KEY** Open
Portfolio: economy and growth					
Portfolio: environment					
Adoption of Herefordshire Local Nature Recovery Strategy To formally adopt the Herefordshire Local Nature Recovery Strategy and accept associated government grant for delivery.	Cabinet member culture and Environment 31 July 2026	Cabinet member culture and Environment Mandy Neill, Senior Landscape Officer, Richard Vaughan, Sustainability and Climate Change Manager mandy.neill@herefordshire.gov.uk, Richard.Vaughan@herefordshire.gov.uk Tel: 01432 260192	Economy and Environment	26 June 2026	**KEY** Open

Report title and purpose	Decision Maker and Due date	Lead cabinet member and officer contact(s)	Directorate	Date uploaded onto plan	Decision Type, exemptions and urgency
Portfolio: finance and corporate services					
Public Notices To approve a contract via a direct award process for the placing of public notices in newspapers circulating within Herefordshire.	Cabinet member finance and corporate services 29 July 2026	Cabinet member finance and corporate services Ed Bradford, Major Contracts Programme Director Edward.Bradford@herefordshire.gov.uk Tel: 01432 260786	Economy and Environment	26 June 2026	**KEY** Open
Portfolio: local engagement and community resilience					
Portfolio: roads and regulatory services					
National Parking Platform (NPP) To agree to join the NPP to provide multiple options of cashless parking providers for all council pay and display car parks and on-street.	Cabinet member roads and regulatory services Before 13 July 2026	Cabinet member roads and regulatory services Michael Barnes, Parking Services Manager michael.barnes@herefordshire.gov.uk	Economy and Environment	26 June 2026	**KEY** Open

Report title and purpose	Decision Maker and Due date	Lead cabinet member and officer contact(s)	Directorate	Date uploaded onto plan	Decision Type, exemptions and urgency
Portfolio: transport and infrastructure					
Active Travel Capital Fund 2026/27 This report is to confirm the work that will be delivered with the Active Travel Capital Fund that Herefordshire Council have received for 2026/27 financial year	Cabinet member transport and infrastructure 17 July 2026	Cabinet member transport and infrastructure Ffion Horton, Transport Planning Services Manager ffion.horton@herefordshire.gov.uk	Economy and Environment	26 June 2026	**Non Key** Open

Herefordshire Council

APPENDIX 3

Recommendations made By Connected Communities Scrutiny Committee in 2025 and 2026

15 January 2025			
Local Transport Plan			
No.	**Recommendation**	**Accepted/Rejected**	**Response**
1	As per a previous recommendation from Connected Communities Scrutiny Committee, environmental protection and enhancement needs to be better reflected throughout the high-level Local Transport Plan objectives and throughout its priorities for the transport network. This should reflect and align with our climate and ecological emergency declaration.	Accepted	Throughout the LTP there is strong focus on the need to support and focus on the way the plan can align and support the environmental protection of the county. There are five core objectives listed in the LTP, one being “Tackling climate change and protecting and enhancing the natural and built environment. By creating a transport system that offers viable low emission options for most journeys and influences travel behaviours and decisions.” The plan identifies actions needed to be taken to achieve this objective • Reduce the amount of traffic travelling through the city centre. • Transition to less polluting types of propulsion through o Providing more Electric Vehicle charging points. o Roll out zero emission buses in Hereford city. • Support transition of freight to sustainable modes in the city centre. Within the plan there are also Action Plans for Hereford City and the Rural areas/Market Towns within these there are 11 objectives to support the Council Plan priorities – • Work towards reducing county and council carbon emissions, aiming for net zero by 2030/31 and work with partners and communities to make the county more resilient to the effects of climate change.

			• Expand and maintain the transport infrastructure in a sustainable way and improve connectivity across the county. Decarbonising maintenance Production of a Low Carbon Procurement Strategy Decarbonising maintenance Develop an approach to considering carbon in scheme design Decarbonising maintenance Reduce carbon emissions from street lighting Decarbonising maintenance Upgrade and enhance traffic signals Transition to lower emission fuels Increased provision of public Electric Vehicle chargers Transition to lower emission fuels Promote the use of peer-to-peer charging networks Transition to lower emission fuels Regular update of Electric Vehicle Charging Strategy Digital Access Promote online services and digital accessibility Transition to lower emission fuels Promotion of peer-to-peer charging networks Transition to lower emission fuels Delivery of LEVI funded on street charge points in all market towns Transition to lower emission fuels Delivery of EV charge points in council car parks
2	The Local Transport Plan team to work with other rural local transport plan teams in England, as well as our neighbouring authorities, to build on best practice and an alliance of rural local transport plans to strengthen the case for rural transport to the government.	Accepted	Since the Scrutiny meeting the council has filled the Transport Planning Service Manager post with an officer from a neighbouring rural authority and the remaining posts for the team are team are to be progressed through recruitment. There continues to be close links to neighbouring councils and other rural councils remains strong

3	To provide the committee with a consultation strategy for the local transport plan, to include a timeline for the consultation and a list of consultees.	Accepted	Cllr O'Driscoll has been liaised with regarding the planned consultation for the LTP and future cabinet/full council meetings. Officers were not aware of the requirement to return to scrutiny prior to the consultation.
4	To ensure that any active travel projects are 'shovel-ready' for any funding that becomes available.	Accepted	Once the plan has been fully adopted it is anticipated that several priority projects will be identified and progressed through concept design, if funding is available. Progressing schemes to the colloquially referenced 'shovel ready' stage requires substantial external funding to be sought. .
Market Towns Investment Plans			
No.	**Recommendation**	**Accepted/Rejected**	**Response**
1	Herefordshire Council to: Recognise that the market town investment plans are living documents with projects that are regularly reviewed and updated.	Accepted	Agreed
2	Herefordshire Council to: Work with town councils to review annually the list of projects in each of the market towns' investment plans.	Accepted	Agreed
3	Herefordshire Council to: Ensure regular communications between the council and Herefordshire's market towns.	Accepted	Agreed
4	Herefordshire Council to: Encourage town councils to engage with their rural hinterlands on their ambitions, thus strengthening the understanding and loyalty to their local service centre.	Accepted	Agreed

12 March 2025			
Highways Winter Maintenance			
No.	**Recommendation**	**Accepted/Rejected**	**Response**
1	Review and update the primary and secondary routes on the gritting network.	Accepted	Officers will complete a review of the gritting network and present their findings to the Cabinet Member for Roads and

			Regulatory Services. It is likely that any changes, if required, would not come into effect until the 2026/27 winter season.
2	Undertake an audit of the number and location of local authority-owned grit bins.	Accepted	Officers will discuss with Balfour Beatty Living Places as to how an audit can be undertaken of grit bins as they re-filled as part of the normal preparations ahead of the winter season.
3	Carry out comprehensive publicity to demonstrate the value and effectiveness of the commissioned professional weather services resulting from accurate forecasting.	Accepted	Officers will arrane for such publicity as part of the communications plan for the 2025/26 winter season.
Update on recommendations made by the Connected Communities Scrutiny Committee			
No.	**Recommendation**	**Accepted/Rejected**	**Response**
1	Ensures that the statutory scrutiny officer drafts a cross-scrutiny committee protocol, to ensure timely responses with faster escalation as required to outstanding recommendations.	Rejected	Rather than draft a protocol, the scrutiny team have instead focussed on supporting officers to draft recommendations. There are currently no overdue responses to recommendations.

3 June 2025			
Cultural Strategy 2019-29			
No.	**Recommendation**	**Accepted/Rejected**	**Response**
1	Herefordshire Council formally endorses the renewed Cultural Strategy 2025-2029 and the key findings of the 5th Sector report.	Accepted	Agreed, with clarification. Cabinet Member / Cabinet recognises the Cultural Strategy 2025–2029 and the 5th Sector report as externally led, sector-produced documents, developed through extensive engagement with cultural partners. In this context, endorsement means formal Council recognition of the strategy and report as valuable frameworks that can guide collaborative working, influence internal policy, and support external funding bids. Endorsement does not imply a commitment to deliver or fund every recommendation but

			confirms the Council's willingness to support and align with the shared vision set out.
2	Herefordshire Council to support Herefordshire Cultural Partnership to produce an implementation plan to deliver the renewed Cultural Strategy 2025-29.	Accepted	Agreed, with clarification. Cabinet Member / Cabinet supports the development of an implementation plan to take forward the Cultural Strategy and recognises the importance of clear next steps and shared accountability. However, the Cultural Strategy is an Herefordshire Cultural Partnership-led (HCP) document, and it is appropriate that responsibility for the implementation plan also sits with the Cultural Partnership. The Council is willing to engage in the development of the plan, offer officer input, and help ensure alignment with council policy and delivery where appropriate.
3	Herefordshire Council ensures there is a dedicated officer to work with the partnership to produce and deliver the strategy's implementation plan.	Accepted	Partly agreed. Cabinet Member / Cabinet recognises the importance of officer capacity to support delivery of the Cultural Strategy and remains committed to contributing to its success. However, decisions regarding staffing and resource allocation are operational matters and sit outside the remit of Scrutiny Committee recommendations. Cabinet Member / Cabinet will review current capacity as part of wider workforce planning, including consideration of how best to support partnership working and strategy implementation across culture.
4	Herefordshire Council to ensure the updated Cultural Strategy 2025-29 is reflected in economic development and health and social care service delivery, including the evolving Talk Community network.	Accepted	Agreed in principle. Cabinet Member / Cabinet recognises the value of embedding cultural priorities across wider council activity and will encourage further alignment where appropriate. Officers will explore opportunities to reflect the Cultural Strategy within

			relevant service areas, including Economic Development, Public Health, and Talk Community. Recognising that integration will be dependent on respective service plans, capacity, and strategic fit.
5	Herefordshire Council highlight the Cultural Strategy 2025-29 to town and parish councils and encourage engagement and support for local initiatives.	Accepted	Agreed in principle. The Council recognises the importance of local engagement and welcomes opportunities for town and parish councils to support cultural activity. A targeted communication campaign could help raise awareness of the strategy and encourage participation at a community level. The Cabinet Member may wish to lead this as part of their engagement role.
6	Herefordshire Council assist with the development and promotion of co-working and creative hub spaces for creatives to access shared resources and facilities to support development of new culture-based businesses in Herefordshire.	Accepted	Agreed in principle The Cabinet Member / Cabinet supports the principle of co-working and creative hubs as valuable enablers of growth within the cultural and creative sectors. While the Council is not positioned to lead or fund such development directly, it is committed to working alongside the Economic Development team and external partners to identify opportunities, share information, and advocate for creative workspace provision where appropriate. This includes aligning with regeneration plans and the wider ambitions of the cultural and economic strategies.
Local Transport Plan			
No.	**Recommendation**	**Accepted/Rejected**	**Response**
1	That the draft Local Transport Plan is reviewed to ensure alignment with existing council plans and strategies.	Partly agreed	Partly agreed – ongoing review of alignment to future council plans and strategies
2	That the Local Transport Plan gives particular consideration to the needs of children and young people	Partly agreed	Partly agreed, the plan does consider the needs of all the transport users of the county therefore it is rejected that the plan would require amendment. However the engagement of the children and young people has been recognised by

			Officers and as discussed at scrutiny ways of engaging with them has been identified as an ongoing piece of work for all Transport Planning work and that is outside the LTP as regular engagement and support would give greater benefits to them rather than just focus on the LTP document
3	The duration of the Local Transport Plan is kept in alignment with the Local Plan and Transport Strategy to which it applies - namely 2016-2031.	Rejected	Reject, this does not provide any benefit to the county and would incur significant costs to the council to create a new plan in 6 years. The alignment of the Local Plan with the Local Transport Plan is not required by legislation nor is it a formal recommendation by government. As advised by officers at the meeting; throughout the development of the Local Plan there will be a continued review of the projects and recommendations needed in the Local Transport Plan which may result in a review and update of the LTP.
4	Herefordshire Council work to increase the number of residents taking part in the Local Transport Plan consultation as a matter of urgency, extending the consultation deadline to 30 June to all members of the public.	Accepted	Agreed, the public consultation will be extended until the 30 June.
5	The policy wording of the Local Transport Plan is tightened to ensure that it is meaningful and capable of being applied.	Rejected	Rejected – It is important to acknowledge that severity of wording is subjective however it is felt that the wording of the LTP does allow it to be meaningfully applied
6	The Local Transport Plan recognises the full extent of existing new developments, for example Ledbury, and the infrastructure improvements necessary to accommodate this.	Partly agreed	Partly agreed – while the LTP will be fundamental in the development and decision making around infrastructure of new developments when a planning application is applied for, it is not a mechanism to resolve existing issues caused by previously built developments. However, as the new Local Plan is developed existing highway issues will be identified and recognised where any new development is recommended.
7	The Local Transport Plan should include targets for the implementation of active travel measures.	Agreed	Agreed

8	The Local Transport Plan recognises the inability of the power grid network to meet the needs of fast EV charging point.	Rejected	Rejected – the LTP is a transport policy document it is not an energy infrastructure plan and deviation into energy provision could over complicate and dilute the primary focus of the LTP which is transport. Officers developing and managing the LTP do not have access to detailed, real-time data on grid capacity or future demand forecasts to make such statements. Additionally, the LTP is a 16-year plan meaning such statement may quickly become outdated and inaccurate.

8 July 2025			
Gully Cleansing			
No.	**Recommendation**	**Accepted/Rejected**	**Response**
1	To provide the committee with an update on the current mapping operation and to provide a date by which the mapping will be completed.	Accepted	Asset data was collected by Town and Parish Councils through the 2024/25 drainage grant, which has now concluded. Mapping of drainage assets continues on a day-to-day basis through the existing arrangement with Balfour Beatty Living Places and will carry on through the new Public Realm Contract, via Herefordshire Council officers and also the new provider from June 2026. It is not possible at this time to provide a date for when all mapping will be completed.
2	To consider early adoption of the upgraded mapping software before the new contract comes into force in June 2026.	Accepted	A basic interim solution is in use on our website at www.herefordshire.gov.uk/flooding-2/flood-management/3#gulliesmap. The upgraded mapping software has been included in the requirements for the new contract, which we expect to be mobilised from late January/February 2026. Once the mapping software is in place we will begin the process of adding known assets based on existing knowledge and data collected by Town and Parish Councils through the 2024/25 drainage grant.

3	To provide an update on the new maintenance schedule that anticipates heavier rainfall across the county with an expected publication date.	Accepted	Balfour Beatty Living Places is expanding its drainage service to include a more comprehensive programmed cleanse of all gullies on A, B, and C roads. This represents the pre-emptive element of our drainage works and complements the existing reactive gully cleaning service, which responds to issues identified through inspections or defect reporting. It also sits alongside our network rehabilitation service, which addresses gullies and drainage systems requiring more substantial intervention following inspections or reactive works. The new Public Realm Contract will see the creation of an annual cleansing programme become the responsibility of Herefordshire Council, which will then be issued to the new provider to complete. The service will also move to a risk-based approach, ensuring that those areas identified as being at risk from existing datasets or previous events are subject to more frequent cleansing.
4	To provide an update on the £2 million flood resilience grant.	Accepted	A PGC meeting is scheduled for 4 September to consider how the additional £2,055,000 investment in flood risk mitigation is proposed to be allocated. We intend to distribute the funding in line with the principles outlined in Herefordshire's Local Flood Risk Management Strategy, focusing on scheme delivery, scheme development, community support, and the use of technology.

9 September 2025			
Local Walking and Cycling Infrastructure Plan			
No.	**Recommendation**	**Accepted/Rejected**	**Response**
1	Ensure that the performance indicators monitoring the success of the Local Transport Plan include indicators showing reduced collisions, reduced emissions, and greater take up of walking and cycling as a mode of transport.	Accepted	Agreed – officers will review the current LTP KPI's that relate to the LCWIP and include additional measures as indicated above

2	Ensure that any targets in the Local Cycling and Walking Infrastructure Plan are Specific, Measurable, Agreed (or Achievable), Realistic, and Time Bound.	Accepted	Agreed – officer will review the document and ensure that the targets are given measures as prescribed above
3	Publish the Local Cycling and Walking Infrastructure Plan implementation plan, prioritisation list and programme of work by the end of 2025.	Accepted	Agreed – the current stage of work for the project is prioritising the list of projects that have been identified pre and post consultation. Once this has been completed and once the external funding provided to us has been announced this autumn the programme of work will be completed and will be returned to Scrutiny Committee for review.

17 February 2026			
Tourism in Herefordshire			
No.	**Recommendation**	**Accepted/Rejected**	**Response**
1	Herefordshire Council recognises the considerable positive impact the Herefordshire Destination Business Improvement District (DBID) has had on development of the tourism offer and should ensure council departments support the Destination Management Plan through planning, regulatory services, transport, and highways.	Accepted	Herefordshire council already recognises the positive impact of the Herefordshire BID, the relevant council departments fed into the development of the Destination Management Plan. We will ensure that the Destination Management Plan is considered when all new relevant council policies are developed and services delivered.
2	Welcomes the council leader's view that Herefordshire Council will support the DBID ballot and recommends that the council supports the ballot publicly when it takes place, and that Herefordshire Council continues to engage politically during the DBID ballot process.	Accepted	Agreed - Herefordshire council already recognises the positive impact of the Herefordshire BID, the relevant council departments fed into the development of the Destination Management Plan. We will ensure that the Destination Management Plan is considered when all new relevant council policies are developed and services delivered.
3	Herefordshire Council develops a contingency plan should the DBID ballot not be successful.	Accepted	The next Herefordshire BID ballot is due to take place in October 2026. The council is already working with BID officers to prepare for the next ballot. An in public

			governance decision (in accordance with the council's constitution) will be taken by Cabinet Member for Economy and Growth prior to ballot to confirm the council's support for, and intention to vote in favour of, the BID.
4	Herefordshire Council lobbies Government to support business development, including tourism, outside of metropolitan areas.	Partially Accepted	Should the Herefordshire BID be unsuccessful, future support for the tourism and independent retail sector will be considered alongside all other support for priority local sectors. Business support services are already provided through the Herefordshire Growth Hub. Any further support will be dependent on the availability of government or other funding support available in future years, and the council should therefore look to outsource this work.

15 April 2026			
Herefordshire Parking Strategy 2026-2041			
No.	**Recommendation**	**Accepted/Rejected**	**Response**
1	Include a section explaining why Herefordshire Council charges for parking.	Accepted	The draft strategy will be updated to add a section on why the council charge for parking
2	Engage specifically with enforcement officers as part of the strategy development.	Accepted	The draft strategy has been developed through an officers' working group that included Civil Enforcement Officers (CEO's), management and operational staff.
3	Engage as soon as possible with town and parish councils to help shape the local approach.	Accepted	As part of the formal consultation on the strategy town and parish councils will be engaged so they can help shape the policy
4	Provide evidence of the modal shift arising from the strategy.	Partly Accepted	As part of the cabinet paper there will be clear KPI's identified to monitor the success of the scheme; it may not be possible for the modal shift to be directly attributable to this strategy however, if possible, this will be monitored and recorded
5	Ensure the strategy makes clear that the option to pay for parking using cash will remain for all council-provided parking.	Accepted	Draft policy currently states that cash payments are not being removed

15 April 2026 (continued)			
Tourism in Herefordshire			
No.	**Recommendation**	**Accepted/Rejected**	**Response**
1	Move from pass/fail assessments to scored or graded assessments, to ensure more granularity in traffic outcomes, safety outcomes, land acquisition, carbon reduction, woodland mitigation, biodiversity net gain, construction price, social value, affordability, and value for money.	Accepted	This recommendation has been accepted resulting in the criteria being redrafted for the final cabinet report. The criteria have now been organised against the Five Case Models as set out by the Department for Transport. The criteria have been expended from 21 to 41 and now include more qualitative and quantitative criteria as well as requirements that need to be in place before moving to the construction phase.
2	Widen the criteria for measuring social value to include the distribution of impacts on people in Herefordshire.	Accepted	The recommendation has been accepted resulting in an additional qualitative criteria covering a summary of the overall social benefits the scheme will deliver. This will be reported in a benefits distribution table and has been included in the revised Cabinet paper.
3	Ensure clearer reporting of project risks, assumptions and uncertainty.	Accepted	This recommendation has been accepted resulting in changes to the criteria so that they now include more about the key risks including the financial risks.
4	Ensure the report to Cabinet incorporates high/medium/low growth risk scenarios.	Accepted	This recommendation has been accepted resulting in changes to the Full Business Case that will be published in June so that it includes modelling information showing low, medium and high growth scenarios.

7 July 2026			
Year of Delivery - Capital Projects			
No.	**Recommendation**	**Accepted/Rejected**	**Response**
1	That the executive reviews the council's current arrangements for developing cost estimates for major capital projects before projects proceed to approval stages.		*response due by 9 September 2026*
2	That the council explores the provision of a marshal to manage bus manoeuvres in the transport hub.		*response due by 9 September 2026*
3	That the council consider an incubation hub as part of the development of phase 2 of Ross Business Park.		*response due by 9 September 2026*
4	That the council provide more regular public updates on the progress on the revised redevelopments of Shire Hall and the Hereford Museum and Art Gallery.		*response due by 9 September 2026*