

Chapter 8 – Management Dimension



A38 Bromsgrove Route Enhancement Programme

March 2023

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8. Management Dimension

The Project Management Dimension sets out how Worcestershire County Council (WCC) proposes to deliver Phase 3 the A38 Bromsgrove Route Enhancement Programme (BREP) package. It explains:

- The capability and capacity of WCC to deliver the scheme, drawing on evidence from other similar projects.
- The way in which the programme complements other schemes.
- Arrangements for project governance, including organisational structure and allocation of roles and decision-making powers.
- The project programme, which has been carefully planned to ensure that it is realistic and deliverable and aligns with the MRN guidance and process.
- The process being used to ensure that all the necessary assurance and approvals are obtained in a timely and efficient manner, and associated reporting.
- The strategy for effective communication and stakeholder management.
- The strategy and approach adopted to ensure effective risk management.

8.1 Background

The A38 in Bromsgrove is an important corridor on the Major Road Network (MRN). It acts as a key strategic link, providing access to the Strategic Road Network (SRN), as well as offering an important local function as an eastern bypass to Bromsgrove town centre and providing access to housing, services and employment frontages.

WCC is delivering a major upgrade of the A38 corridor between M5 Junction 4 to the north and the junction of A38 with B4094 Worcester Road to the south, which is approximately 7.5 miles (12 km) long. This Full Business Case (FBC) seeks funding to deliver Phase 3 of the major upgrade of the A38 corridor between M42 Junction 1 to the north and the junction of A38 with B4094 Worcester Road to the south, which is approximately 3.8 miles (6.1 km) long. This corridor forms part of the strategic north south spine through Worcestershire, connecting Worcester, Droitwich, Bromsgrove to Birmingham to the North and Gloucester and Bristol to the south as an alternative to the M5 route. The study area is shown in Figure 8.1.

The A38 corridor is a multi-functional route serving a range of users which contributes to the problems and issues. The key characteristics are:

- The route performs a range of different functions, including as a link to the SRN, a corridor to bypass Bromsgrove town centre, a distributor road for journeys that have an origin and/or destination in Bromsgrove and a local access route for residents and businesses that have direct frontages on to the corridor.
- The corridor comprises sections with differing speed limits, levels of frontage and access points in addition to varying levels of pedestrian and cyclist provision. In addition, the driving experience along the route varies due to the differing land uses along sections of the A38 from residential, open field to employment and retail.
- The two features of the A38 corridor outlined above, combined with high levels of car dependency across Bromsgrove, result in substantial congestion.

The A38 BREP comprises a package of schemes delivering targeted improvements to junctions and significant enhancement of facilities for active modes.

Figure 8.1 – Scheme location



This situation is projected to worsen in the future as new housing and employment planned for the local area are delivered. The planned growth in housing will increase the demand for travel. The following points summarise the planned developments in the area:

- The Bromsgrove District Plan (adopted in 2017) includes major residential development sites around the edge of Bromsgrove, with Perryfields Road and Whitford Road being particularly relevant to the A38. Smaller residential allocations are also found in surrounding areas. In total the Local Plan identifies a need for 7,000 dwellings and 28 Hectares of employment land in the period 2011-2030. However, the adopted Local Plan only allocated land for 4,700 dwellings to 2023, noting that allocating land for the remaining 2,300 homes would be subject to a Green Belt review as part of a Local Plan Review. Subject to the ongoing Local Plan review, the scheme may further support delivery of additional homes and employment land.
- The Local Plan Review will also identify development allocations for growth beyond 2030 and in its Issues and Options consultation put forward various scenarios. The consultation documents published in September 2019 proposed that the new Plan will have a likely start date of 2023 and an end date of 2040. Over this period the Plan will be required to provide for at least 6,443 dwellings and up to 90 Hectares of employment land.
- Within close proximity of the A38 corridor area there are significant cross-boundary allocations within the adopted Local Plan for Redditch. This includes an additional 3,400 dwellings (and 5.5 hectares of employment land) on the border with Redditch but located within Bromsgrove District, to meet Redditch's housing need, as identified in their own Local Plan. The allocation at Foxlydiate is particularly relevant to the A38.

- In addition, there are further allocations within the Redditch Local Plan (and sited within Redditch itself). Around 3,000 dwellings and 27.5 hectares of employment land are to be accommodated within Redditch Borough.

Table 3.34 of the Strategic Dimension shows key development sites in the vicinity of the A38 identified within the adopted Local Plans. The quantum of proposed development (housing and employment) within the adopted Local Plans requires enhancements to transport infrastructure, including the A38. Whilst no individual development site currently has planning conditions that restrict development in advance of delivery of the A38 schemes, there are planning linkages between the A38 BREP and the delivery of allocations identified in adopted Local Plans, and this is reflected in the requirement for S106 contributions to the BREP scheme. The A38 in its current form is a key constraint to additional future development allocations through the Local Plan review process. Therefore, in summary, the A38 BREP supports the delivery of 5310 homes and 13.45 Hectares of employment land based on the current plan. Subject to the ongoing Local Plan review, the scheme may further support delivery of additional homes.

To effectively support the future development of Bromsgrove and to deliver economic growth, significant improvements are required to the corridor itself, supported by targeted improvements for other modes.

The scheme for which funding is sought through this MRN bid is an important part of the overall approach to transport in Bromsgrove. It will support ongoing work that is aiming to enhance both the major and local road network, as well as encouraging walking, cycling and the use of public transport.

8.2 Introduction

The wider A38 BREP corridor enhancement is being delivered in four phases, these phases are presented in Figure 8.2 and described below:

- Phase 1 (funded by Worcestershire Local Enterprise Partnership (WLEP), Greater Birmingham and Solihull Local Enterprise Partnership (GBSLEP) and National Highways' Growth and Housing Fund (GHF)), provided for capacity upgrades at M5 Junction 4, M42 Junction 1 (completed in 2020/21) and the Barley Mow Lane junction with the A38 (completed in 2019). The works are included in the Do Minimum scenario for the A38 BREP Phase 3, as these have now been completed on site.
- Phase 2 comprised of the early delivery elements (also referred to as Schemes 2a, 2b and 4) of the BREP package presented at both the Strategic Outline Case (SOC) and Outline Business Case (OBC) stages. The early delivery schemes have been delivered early using WLEP local contribution funding to take advantage of the local funding availability. These works are an important part of the overall BREP scheme, contributing to the improvement of active mode facilities on the corridor.
 - Scheme 2a: An active travel corridor on the A38 between Charford Road and Harvington Road that includes a 3m wide cycleway and 2m wide segregated pedestrian / cycle facility provision of connection to Harvington Road.
 - Scheme 2b: An active travel corridor providing connection between the A38 and Scheme 2A to South Bromsgrove High School, it includes the provision of a 3m wide shared cycle path and footpath.
 - Scheme 4 is a signal toucan crossing of A448 to east of Fordhouse Road, to provide connectivity between Blackwood Road (Heart of Worcestershire College) and Regents Park Road and Fordhouse Road, and tie into Scheme E, Scheme 3 and Scheme 9.

Phase 2 schemes have been developed as part of the overall strategic active mode upgrade as part of the A38 BREP package. The FBC will continue adopting the same approach presented in the OBC submission in relation to these schemes: they form part of Phase 3 Do Minimum scenario, and their economic and financial impacts are reported as a sensitivity test in the Economic Dimension. It should be noted that the Phase 2 package offered a High Value for Money to taxpayers.

- Phase 3 includes three active mode, two local public transport and six hybrid highway capacity and active travel improvement schemes which were included in the OBC submission:
 - Three active mode improvement schemes, namely Schemes 3, 6 and 9.
 - Two local public transport improvement schemes which have not changed compared to the OBC stage. Local public transport improvements, notated as Scheme 7 (provision of upgrades to 9 bus stops including provision of physical infrastructure/shelters and wind turbines/solar panels powered Real Time Information (RTI) screens; and Scheme 8 which includes the provision of select vehicle detection at New Road and Charford Road junctions to support buses in crossing the A38 corridor, on the primary routes between the Town Centre and Bromsgrove Rail Station (Scheme 8 will be delivered at the same time as Schemes C and D).
 - Six hybrid schemes containing highways capacity and active travel improvements which were included in the OBC submission. These are Schemes: C to F and parts of Schemes A and B (only limited elements of the latter two schemes have been moved to Phase 4).
- Phase 4 includes schemes that were originally included in the OBC stage but have now been moved to Phase 4. This was due to increased inflation experienced in 2022, resulting in increased scheme costs. Phase 4 includes the following schemes:
 - Three highways improvement schemes: Scheme G and the complementary remaining parts of Schemes A and B that have been removed from OBC stage.
 - Two active mode improvement schemes, namely Schemes 1 and 5.

Phase 4 schemes (See Figure 8.2) have been removed from all aspects of this bid and will be progressed once alternative funding sources are secured hence will be subject to a separate business case.

Figure 8.2 presents the phasing of the A38 corridor improvements, while Figure 8.3 provides an overview of the highway, active mode and public transport elements of the A38 BREP scheme, and Figure 8.4 presents the locations of the new Shelters and RTI interventions included in Scheme 7.

Figure 8.2 – A38 corridor improvement phasing

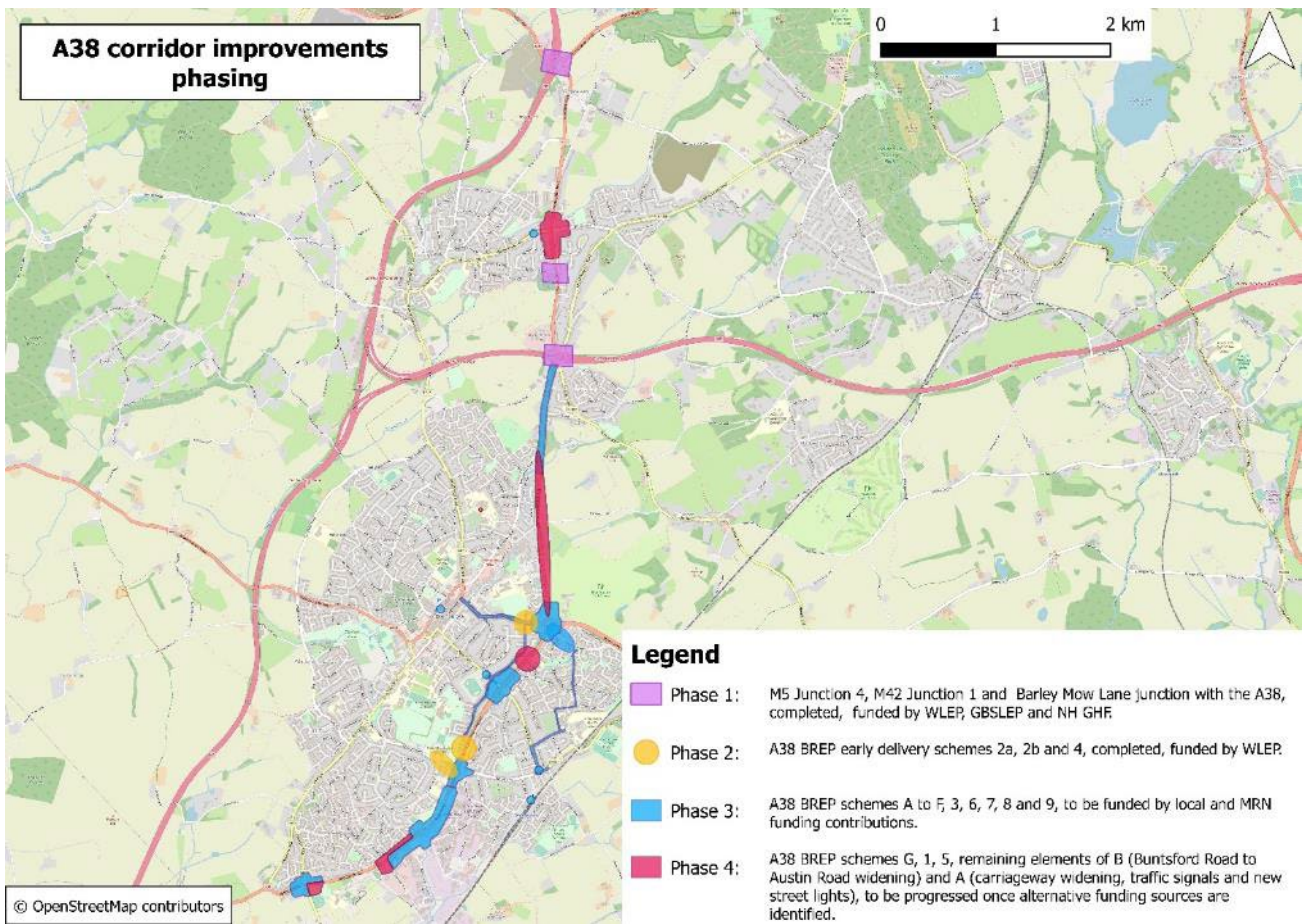


Figure 8.3 – Highway, active mode and public transport schemes included in Phases 2 and 3

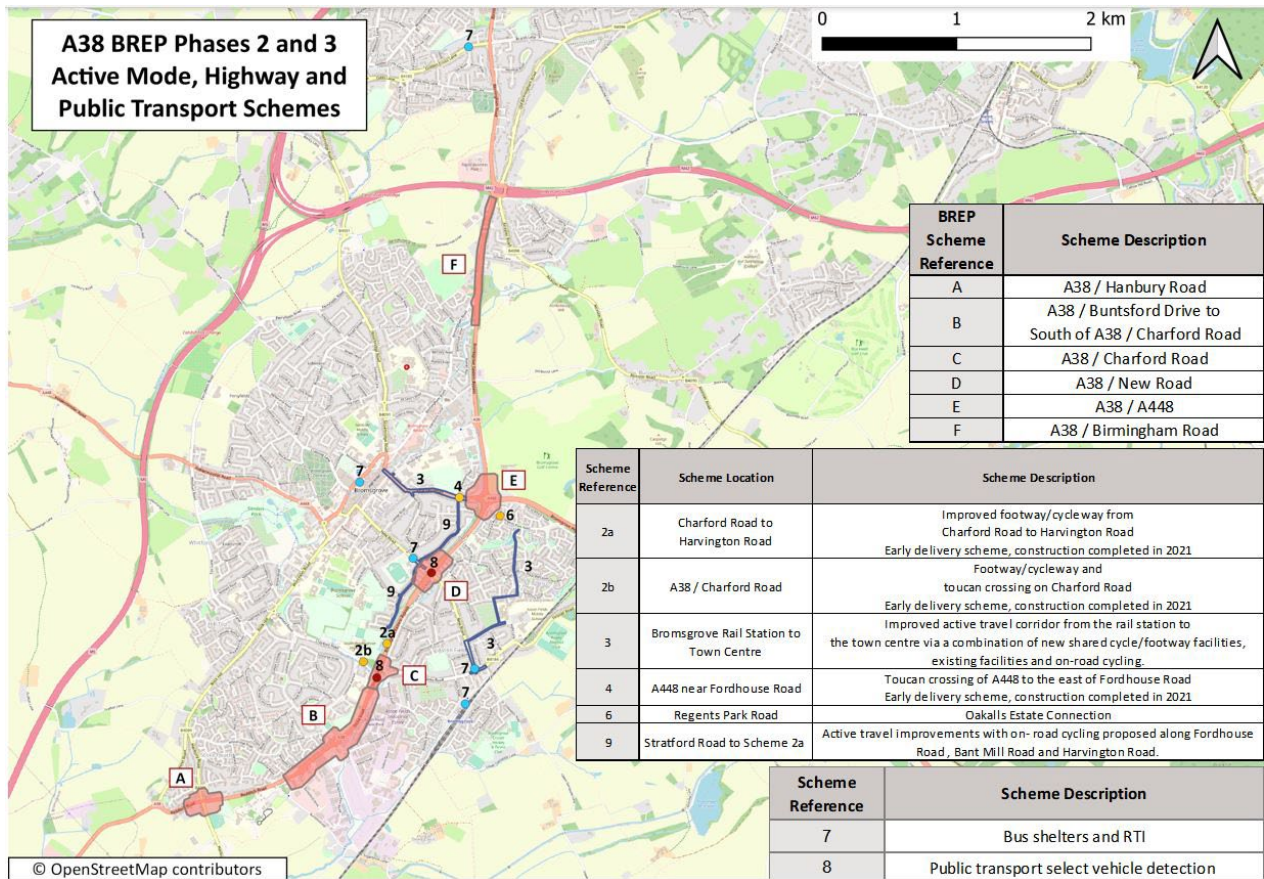
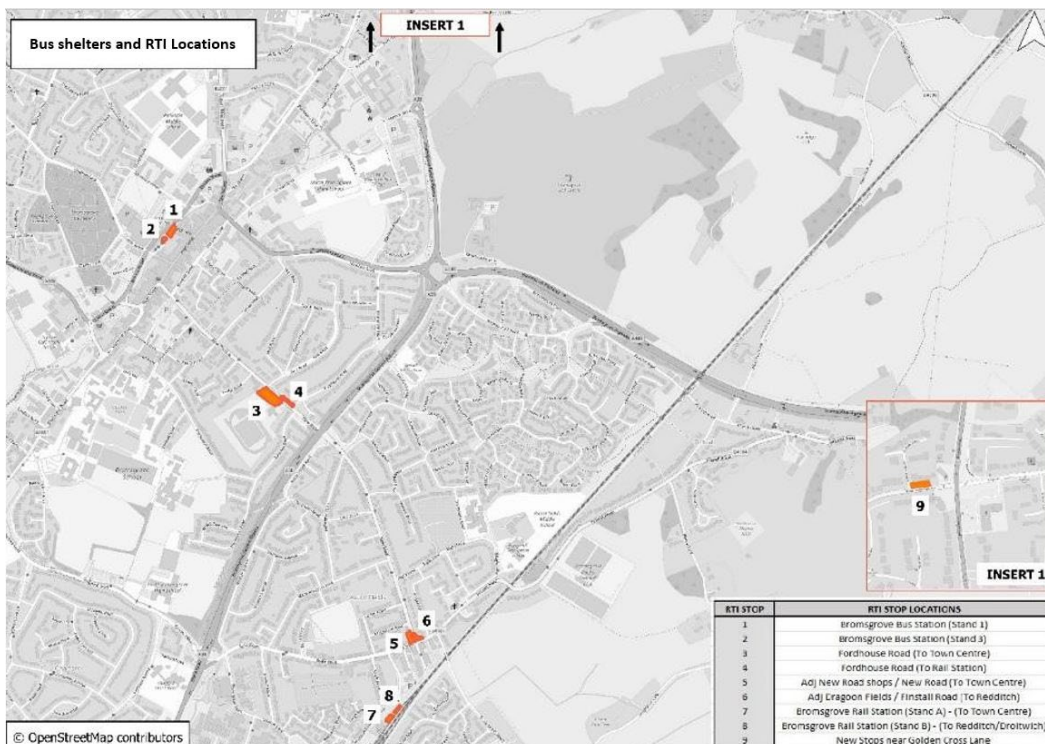


Figure 8.4 – Scheme 7/ Shelters and RTIS stop locations



8.3 Objectives

Section 3.4 of the Strategic Dimension sets out the Specific, Measurable, Achievable, Relevant and Time-bound (SMART) objectives, the supporting rationale and the expected strategic benefits and outputs. It identifies how inputs, outputs, outcomes and impacts are interlinked within the proposed scheme.

Phase 3 of the A38 BREP is anticipated to have a beneficial impact on transport users and the surrounding area through meeting the following scheme objectives:

- Reduce congestion and transport costs.
- Maximise the efficiency of the road network.
- Increased journey time reliability.
- Support the delivery of housing and employment growth as outlined in the Bromsgrove District Plan and the Redditch Local Plan.
- Improve connectivity for pedestrians and cyclists on and across the A38 corridor, including to Bromsgrove Rail Station.

8.4 Evidence of Similar Projects

WCC has considerable experience of delivering major schemes similar in complexity to the A38 BREP. WCC aims for:

- Delivering major transport schemes on-time and on budget.
- Successfully obtaining consents for major infrastructure schemes and packages.
- Internal resourcing and governance requirements for major schemes and packages.
- Developing and maintaining good working relationships with key partners and stakeholders.
- Delivering schemes and packages via a suite of term contracts.

Examples of similar schemes successfully implemented in the last five years by WCC include the following schemes, by carrying forward the project team and governance structure already in place, this A38 BREP Phase 3 bid benefits from an established process, with a clear process for assurance and approvals:

- A38 Phase 1 works to junctions of the A38 with M5 J4, M42 J1 (completed on site in early 2021) and Barley Mow Lane (completed in 2019).
- National Productivity Investment Fund (NPIF) – works continue to enhance nine walking and cycling routes across Bromsgrove.
- The Worcester A4440 Southern Link Road (SLR), phases 1, 2, and 3 which have delivered dualling and significant capacity improvements to roundabouts on the A4440 between Ketch and Whittington, completed to programme. Construction of this scheme followed a successful business case submission to DfT following a similar process to this MRN bid.
- SLR Phase 4 – This £62m scheme is now open for the public. Key elements are complete on site, including dualling of the A4440 Temeside Way, widening of the existing cycleway along the Temeside Way, new Powick Viaduct, new Carrington Bridge over the River Severn and new walking and cycling bridge over Hams Way.
- Kidderminster Rail Station Building – this £5m construction project successfully delivered a new glass-fronted enhanced station building, which opened in June 2020.

- Worcestershire Parkway Rail Station – this high-profile project delivered the county’s first new rail station for over 100 years and opened in February 2020. The project has won several awards for civil engineering including West Midlands top civil engineering project for 2020.

Additionally, in previous years WCC successfully delivered the following schemes, which have all contributed towards significant experience of delivering high-profile transport interventions:

- The Hoobrook Link Road (Phase 2) in the South Kidderminster Enterprise Park. The £16m scheme included completing a link road to the south of the town centre, with a new bridge over the Staffordshire and Worcestershire Canal and River Stour. The scheme was completed in summer of 2016.
- The Worcester Transport Strategy (Phase 1) (WTS) Major Scheme. This scheme comprised of a series of improvements to the network (walking, cycling, public transport and vehicular improvements) in and around the city of Worcester, including improvements to key corridors into Worcester city centre. The £19.65m package of work were successfully delivered in a timely manner and to budget.
- Multi-Modal Corridor Enhancement Schemes, along two key radial corridors in Worcester (both implemented in 2010/11):
 - Newtown Road Corridor funded through LTP2 & Section 106 contributions.
 - Bromyard Road Corridor funded through Communities Infrastructure Funding Round 2 (CIF2).

These projects were complex and demanding in nature, thus requiring established ways of working with partners and stakeholders to be established. The processes and working practices that contributed to the successful delivery of these projects, as well as the lessons learnt during their delivery, will be used to the benefit of Phase 3 of the A38 BREP scheme.

8.5 Relationship to Other Projects

The schemes proposed through this MRN bid complement a range of work recently implemented in the Bromsgrove area to enhance the A38 corridor, including:

- A38 Phase 1 Improvements

Works north of the M42 to the Barley Mow Lane junction of the A38 were completed on site in 2019. This complement Phases 2 and 3 of the A38 BREP package by:

- A new right turn lane into Barley Mow Lane within the existing road width.
- Moving the signalised pedestrian crossing further north to allow for the right turn lane.
- Slight relocation of the bus stops.

Phase 1 also included works to M5 Junction 4 and M42 Junction 1 were completed in early 2021. This complements A38 BREP package by supporting access to the SRN through:

- Widening of the A38 northbound approach to the M5 roundabout. Two lanes have been provided from around 100 metres in advance of the existing stop line, increasing to three lanes for the last 35 metres.
- Widening of the A38 southbound away from Junction 4 to 2 lanes, merging back to the existing single lane prior to Lydiate Ash Road.
- The repositioning of the footway to accommodate the southbound widening.

- National Productivity Investment Fund (NPIF) – WCC was successful in securing funding for improvements to walking and cycling infrastructure on nine radial routes across Bromsgrove, including three routes that cross the A38 corridor. These works have been delivered. The A38 BREP proposals for walking and cycling link with, and address gaps in, the NPIF routes, contributing to an overall network of routes across Bromsgrove.
- WLEP funded early delivery elements of A38 BREP (Phase 2) – three walking and cycling enhancements from the overall A38 BREP package (namely Schemes 2a, 2b and 4) have been taken forward for early delivery funded by WLEP. Works began on site in early 2021, following a business case process endorsed by WLEP in late 2020. These schemes have been completed in autumn 2021 (Figure 8.5, Figure 8.6 and Figure 8.7) and they still form part of the local contribution towards the overall A38 BREP package.
- Bromsgrove Rail Station – the relocated and upgraded station for Bromsgrove opened in 2016. Since then, a key aspiration for WCC has been to improve walking and cycling routes to the station. The A38 BREP walking and cycling schemes, together with the NPIF improvements, help to enhance routes to the station.
- Bromsgrove on Demand - WCC have piloted a Worcestershire on Demand (WoD) initiative in Bromsgrove 'Bromsgrove on Demand (BOD)'. This was operated with two vehicles, with capacity for 14 passengers and one wheelchair user and is funded by WCC. This provides a travel option from the town centre to Bromsgrove Rail Station and other key destinations, determined by the passengers. WCC have evaluated the results of the pilot and have now launched this as a fully live service. WCC will be looking at how to integrate Demand Responsive Transport (DRT) service information into RTI displays and associated infrastructure recognising the importance of new and innovative Smart Hubs at critical interchange points which would allow connection with the strategic corridor routes. These interchange points would provide a location for DRT pickup and provide a booking system (through 10" interactive screens) that allow full accessibility to all residents. DRT is included in future planning of Worcestershire's Strategic Passenger Transport Network as it provides an appropriate alternative to other forms of transport. By improving flexibility based on passenger requirements, WCC believes this will increase the overall positive perception of public transport.

Figure 8.5 – Early delivery Scheme 2a, part of A38 BREP Phase 2 (dated 26/09/2021)*



* A photo of the new pedestrian cycle bridge over the Sugar Brook, adjacent to the A38 which forms part of the delivered Scheme 2a.



* An ariel view of scheme 2a segregated pedestrian / cycle route parallel to A38.

Figure 8.6 – Early delivery Scheme 2b, part of A38 BREP Phase 2 (dated 26/09/2021)*



* An ariel photo of scheme 2b with cycle / pedestrian link and new Toucan Crossing up to A38.



* An ariel photo of scheme 2b with cycle / pedestrian link and new Toucan Crossing connecting A38 to South Bromsgrove High School.

Figure 8.7 - Early delivery Scheme 4, part of A38 BREP Phase 2 (dated 14/04/2021)



* An ariel photo of scheme 4 showing construction of Toucan crossing of Stratford Road creating part of a parallel cycle route to A38.

8.6 Project Dependencies

Physical project constraints are described in the Strategic Dimension. In the Management Dimension the relationship and third-party and other projects dependencies are described.

There are a number of decisions and deliverables that are required from other parties in order for Phase 3 of the A38 BREP schemes to progress. These dependencies require permissions and/or legal processes in order to allow the project to progress. These issues are detailed in Table 8.1 below.

Table 8.1 – Project dependencies

Dependency	Issue	Strategy
Funding availability/securing DfT MRN funding	<p>Insufficient scheme funding may prevent the scheme progressing.</p> <p>Increased scheme cost due to extreme inflation experienced in 2022. DfT funding remain as approved for the OBC stage.</p>	<p>Ongoing liaison with DfT as the main funding partner and the provision of the Quarterly Monitoring Report (QMR).</p> <p>The business case has been developed in line with guidance and feedback from DfT.</p> <p>Due to extreme inflation experienced in 2022, resulting in increased scheme cost, the OBC scheme has been phased into Phases 3 and 4, with Phase 3 elements being the basis of this FBC. This approach has been endorsed by the Project Board and the Cabinet on the 8th December 2022, and has been communicated to DfT.</p>
Funding availability/securing local contribution	<p>S106 required as a source of local contribution.</p> <p>If anticipated housing development does not come forward this would delay receipt of S106 funding and would result in a funding gap.</p>	<p>Local contribution has been secured through section 106 and WLEP contributions.</p> <p>Cabinet approval was gained in 2020 to forward fund S106 contributions.</p> <p>WLEP funding, used to progress the business case and also to deliver the Phase 2 early delivery elements of BREP (delivered during 2020/21 in line with Local Growth Fund (LGF) deadlines) are a key source of local contribution. WCC has previously sought guidance from DfT to ensure that WLEP funding spent can be counted as local contribution. DfT advised that this would be permitted. This approach has been highlighted in the OBC submission, which the FBC continues to adopt.</p>
Permitted Development rights	<p>A Screening Opinion has confirmed (in 2020) that works do not require EIA and it is anticipated that these can be delivered as Permitted Development (PD).</p>	<p>Ongoing liaison with Planning Authority/WCC Development Management and with Worcestershire Regulatory Services.</p> <p>An updated Screening Opinion has been sought during the preparation of the FBC based on the updated traffic model output and the latest designs and has reconfirmed in February 2023 the PD rights as the previous 2020 screening decision.</p>
Planning permission	<p>Scheme 5 (provision of a replacement footbridge) will require planning permission.</p>	<p>Scheme 5 has been moved to Phase 4 (not part of this FBC), however, a planning permission has been secured.</p>
Land ownership	<p>Areas of third-party land are required to deliver Schemes B, C, 3 and 6.</p>	<p>Land required for Schemes B and C is expected to be secured by agreement with the relevant landowners and negotiations are still underway, however, WCC has proceeded to make "The Worcestershire County Council A38</p>

Dependency	Issue	Strategy
		<p>Bromsgrove Route Enhancement Programme Compulsory Purchase Order 2023”. The Order was sealed on 2nd March 2023. In accordance with statutory requirements, Notice of the making of the Order was published in a local newspaper (The Bromsgrove Standard) on 3rd March and 10th March 2023 (refer to section 8.12.4 for details).</p> <p>Bromsgrove District Council has agreed to dedicate to WCC the land required for Schemes 3 and 6.</p>
<p>Successful procurement of contractor</p>	<p>Unsuccessful procurement would result in additional cost, programme delay and risk.</p>	<p>Main works tender with early contractor involvement procurement has resulted in several contractors competing to deliver Schemes A to F, 8 and 6. A preferred contractor is identified, and this FBC is based on the tender returns received.</p> <p>In addition, the Infrastructure Engineering Term Contract (IETC) framework will be used to deliver Schemes 3 and 9.</p> <p>The results of both have been subject to negotiations between WCC and the potential contractors in order to discuss the increased costs due to inflation experienced in 2022 and to reflect the reduced scope due to the phasing of the OBC schemes into Phases 3 and 4, with Phase 3 elements being the basis of this FBC. WCC has received quotes from the Public Transport Department supply chain for the construction of Scheme 7.</p>
<p>Construction phasing</p>	<p>Construction of different elements of the scheme might interact with other schemes construction timeline causing unacceptable disruption on the road network.</p>	<p>Ongoing engagement with WCC as Highways Authority to minimise the impacts through carefully considered construction phasing of different elements of the scheme and the interaction with other schemes construction timeline in order to reduce the impact on the A38 and the wider network.</p> <p>WCC has discussed and agreed the construction programmes received from the preferred contractors, however contractors will be obliged to apply for WCC approval (as the Highways Authority) of their traffic management plans prior to the start of construction.</p>

8.7 Project Governance, Organisation Structure and Roles

The project management for Phase 3 of the A38 BREP is based on the WCC Directorate of Economy and Infrastructure's Project Operating Model (POM) which is a PRINCE2 based project delivery framework. The POM is characterised by a clear governance process which provides a clearly defined structure and a robust gateway review process which controls each stage of project development.

The specific governance and organisational structure for this project has been tailored to meet the requirements of the scheme and its component projects. Project management procedures have been implemented to address the following key areas:

- Project organisation and responsibilities - involved parties and their roles.
- Presentation of project – deliverables, division into work units and time plan.
- Project planning and control – technical approval, progress measurement and monitoring.
- Communications plan – meetings, decisions & action logs, highlight reports and open issues log.

Specific attention has been given to governance, to provide a well-defined structure and clear roles. Table 8.2 shows the key project roles.

Table 8.2 – Key project roles

Member	Key roles and responsibilities	Resourced
WCC Cabinet	Overall responsibility	Yes
Project Board	Design and financial approval	Yes
WCC	Project management	Yes
Consultant - [REDACTED]	Design of Schemes A to F and Scheme 6 and business case development	Yes
IETC Consultant (Schemes 3 and 9) - [REDACTED]	Design and scheme development	Yes
IETC framework Contractor (Schemes 3 and 9) – [REDACTED]	Construction	Yes
Contractor (Schemes A to F, 6 and 8) - [REDACTED]	Construction	Yes
WCC Public Transport Department supply chain (Schemes 7) - [REDACTED]	Design and construction	Yes

8.7.1 WCC Cabinet

WCC's Cabinet, made up of the members shown in Table 8.3, has ultimate authority for the project. The Cabinet is responsible for most day-to-day Council decisions. The Leader of the Council, Councillor Simon Geraghty, appoints councillors to the Cabinet and these Cabinet Members have specific areas of responsibility; there are currently nine members of the Cabinet.

Table 8.3 – Members of WCC Cabinet (as of February 2023)

Member	Responsibility
Simon Geraghty	Leader of the Council, with responsibility for Finance
Mike Rouse	Cabinet Member for Highways and Transport
Adrian Hardman	Cabinet Member for Adult Services
Marcus Hart	Deputy Leader and Cabinet Member for Communities
Richard Morris	Cabinet Member for Environment
Marc Bayliss	Cabinet Member with Responsibility for this infrastructure programme.
Andy Roberts	Cabinet Member for Children and Families
Karen May	Cabinet Member for Health and Wellbeing
Adam Kent	Cabinet Member for Corporate Services and Communication
Tracey Onslow	Cabinet Member for Education

Further details of the Worcestershire County Council Cabinet can be found at the WCC website.

8.7.2 Project Board

The Project Board comprises officers that hold the responsibility for the delivery of Phase 3 of the A38 BREP. The Board is well established, having played an active role in developing and securing funding and the delivery of Phase 1 schemes, overseeing the development and delivery of the Phase 2 early delivery walking and cycling schemes (WLEP funded, construction is now completed) and the development of this business case through SOC, OBC and now the FBC stages. The Project Board will continue to oversee project delivery and implementation and will have a key role in terms of governance, accountability and decision making.

Project Board members are from a wide delivery team and play an active role in a number of scheme elements, including risk workshops, package sifting and public consultation. The group meets regularly throughout the life of the project, including at key milestones. Project Board meetings are arranged to coincide with key decision points in terms of procurement, design and financial approval. Membership of the Board is detailed in Table 8.4.

Table 8.4 – Membership of the Project Board.

Member	Title	Role
	WCC/Assistant Director for Economy, Major Projects and Waste	Senior Responsible Officer (Project Delivery)
	WCC/Head of Planning and Transport Planning	Senior Responsible Officer (Project Conception & Business Case)
	WCC/Transport Policy and Strategy Team Leader	Planning and Development Control
	WCC/Programme and Commissioning Manager	Project Commissioner (design & delivery)
	WCC/Senior Transport Planner	Business Case Lead
	WCC/Project Manager	WCC Client Project Manager
	WCC/FBC Project Manager	WCC FBC Project Manager
	Bromsgrove District Council & Redditch Borough Council/Planning Policy Manager	District Council Representative
	WCC/Deputy Chief Finance Officer / Business Partner	Finance Lead
	Senior Estates Surveyor	Land Negotiation and CPO
	WCC Communications Lead for Major Projects	Project Communications and Reputation Management

8.7.3 Senior Responsible Officer (SRO)

██████████ is the Senior Responsible Officer (SRO) for the project conception and business case preparation stage. ██████████ role is to lead the management and delivery teams and to provide the interface with the WCC Cabinet.

██████████ has been involved in the project for some time and took over as SRO from ██████████ (who was SRO at the time of the SOC) in late 2020.

As SRO, ██████████ is responsible for:

- Reporting to and receiving feedback from the Project Board.
- Ensuring the appropriate resources, project management and technical expertise are in place for the project.
- Making decisions and approving changes within agreed tolerances or seeking authorisation if required.
- Monitoring and evaluating project progress against milestones and assess outcomes.
- Providing guidance, support and direction to the Project Manager and project team.

As indicated also in the OBC submission, the SRO role will pass to [REDACTED] once the FBC is approved by DfT, who will oversee the project through the delivery and implementation stage. [REDACTED] have undertaken similar roles on previous successful projects and bring strong experience in both project development and scheme delivery. [REDACTED] has overseen the successful delivery of the A38 BREP Phases 1 and 2 schemes.

8.7.4 Project Manager

WCC's current consultant [REDACTED] Project Management team will continue to be engaged to complete close out of the FBC submission and integration of new build supplier. Additionally, they will also continue in the role of designer until the project is delivered. However, a decision will be made regarding any wider use of [REDACTED] on the programme once the procurement of the Council's new professional services contract is complete. The WCC Project Management Office continues to support the project.

[REDACTED] involvement will continue as FBC Project Manager (PM) until DfT funding is secured which will provide continuity in all aspects of the scheme and business case development.

As the project progresses into the delivery stage, the Client Project Manager (PM) role will pass from [REDACTED] (WCC FBC Project Manager) to [REDACTED] who will lead the management of delivery teams, providing an interface between the various approval boards and delivery teams, in accordance with the WCC Project Operating Model.

The project will be managed in accordance with PRINCE2 principles with set tolerances, as agreed by the Project Board. The Client PM leads the work of project teams and are members of the Project Board.

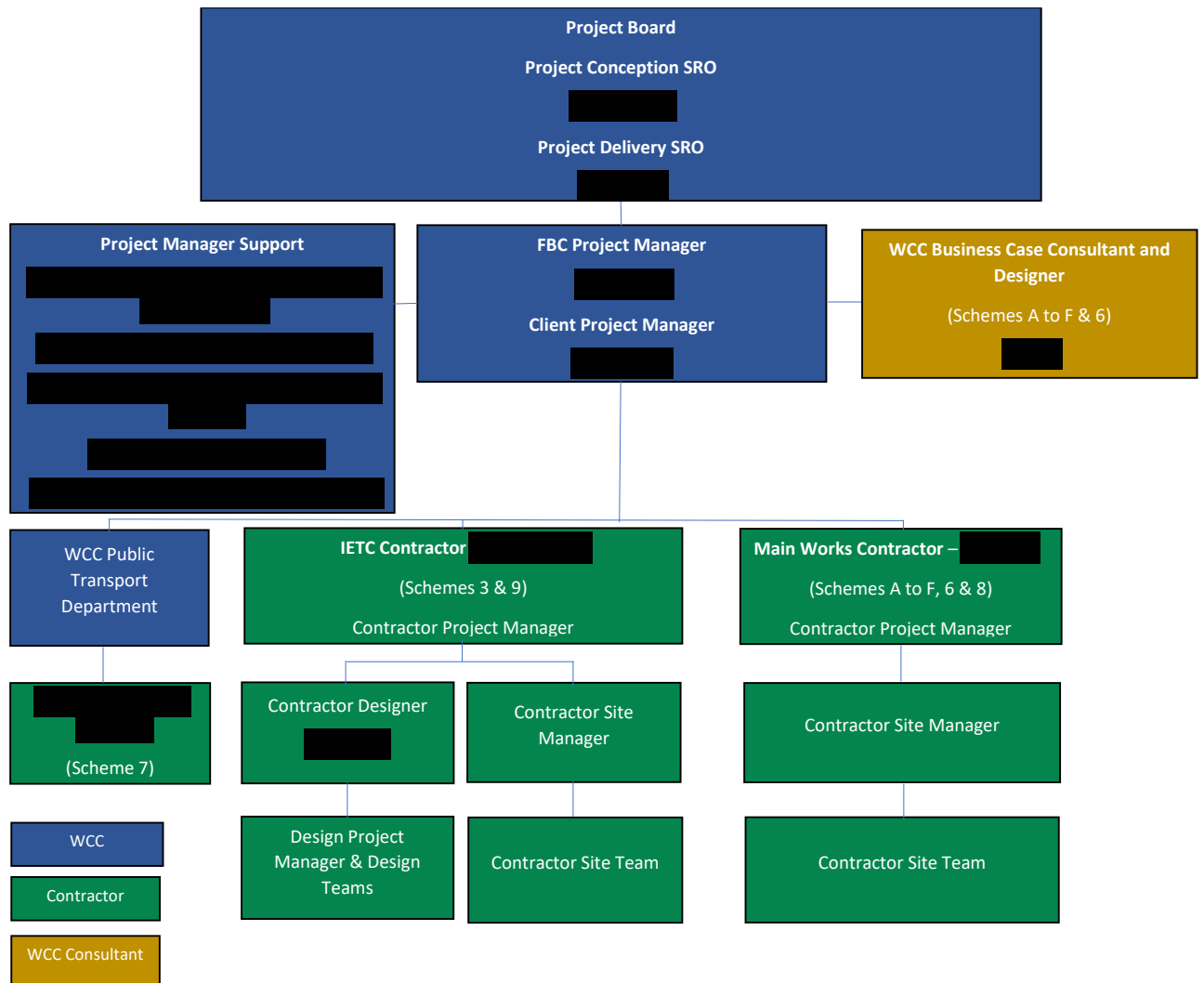
The role of the Client PM is to:

- Lead and coordinate the project team and its work-streams.
- Procure consultants and contractors under the advice of SRO/Commissioner/Project Board.
- Prepare and report project budgets and project programme.
- Manage project risks and issues.
- Report to and receive feedback from the responsible officer.
- Prepare documentation and present such as Project Board.
- Produce periodic progress reports to relevant committees.

8.7.5 Project Teams

The FBC PM and the Client PM ([REDACTED]) are already overlapping to ensure continuity, and both are supported by a project team covering all related disciplines. In most cases a discipline has a lead officer or consultant who is, where relevant, supported by a co-ordinator and wider team. The project team structure is summarised in Figure 8.8. A full organogram is included as Appendix M.1. [REDACTED] has been identified as the preferred main works contractor for Schemes A to F and Schemes 6 and 8 based on a tender process carried out by WCC. Schemes 3 and 9 will be built by [REDACTED] using the existing IETC term contract, while for Scheme 7, WCC Public Transport Department requested quotes from its supply chain and identified [REDACTED] as the preferred contractor. Contractors site managers and teams will be identified once appointed by WCC after securing DfT funding.

Figure 8.8 – Project Organogram



8.8 Project Plan

A project plan has been developed for the delivery of Phase 3 of the A38 BREP schemes, setting out the main project stages between the FBC submission and full scheme completion and their anticipated timescales.

Table 8.5 below shows a high-level plan for construction sequence and defines key milestones and dates leading to the scheme opening. Appendix M.2 includes detailed construction programmes proposed by the preferred contractors, and agreed by WCC, of main works contract (Schemes A to F, 6 and 8), IETC (Schemes 3 and 9) and Scheme 7 works.

WCC has provided DfT with drafts of the FBC main chapters before the formal submission in order to reduce the review period as much as practically possible in order to meet the planned construction dates. Contract award will be after securing the approval of DfT, and construction will start in August 2023 and will last for 2 years with the scheme opening in June 2025, all subject to securing DfT approval by end of May 2023.

Table 8.5 – Project plan.

Work stage/Milestone	Target date of completion
FBC development	August 2022 - March 2023
Approval of OBC	August 2022
Draft management, strategic and commercial dimensions chapters to DfT*	December 2022
Cabinet meeting to approve the submission of the FBC based on the phased approach i.e. Phase 3 (this FBC) and Phase 4	December 2022
Procurement and selection of contractors – WCC Public Transport Department supply chain (Schemes 7)	December 2022
Draft economic dimension and traffic modelling chapters to DfT*	February 2023
Confirmation of PD rights	February 2023
Procurement and selection of contractors – Main works tender/ IETC (Schemes A to F, 3, 6, 8 and 9)	February 2023
Stage 3 gateway review	March 2023
CPO published	March 2023
Acquisition of land for Schemes B and C	July/August 2023
Submission of FBC	March 2023
Approval of FBC*	May 2023
Baseline monitoring surveys	April 2023 – June 2023
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
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[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

Work stage/Milestone	Target date of completion
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

* WCC has provided DfT with drafts of the FBC main chapters with the aim to reduce the review period.

** This includes statutory processes detailed in Table 8.8 and Table 8.9, and will follow the overall construction sequence.

8.9 Communications and Stakeholder Management

8.9.1 Engagement Undertaken to Date

Consultation on the principle of the A38 BREP package has previously been undertaken indirectly, via the Worcestershire Local Transport Plan (LTP) 4. Consultation versions of the LTP included information on the A38 BREP which means that they have been subject to various high-level consultations as part of both LTP3 and LTP4 and endorsed by the County Council's Cabinet. References were made regarding the need for enhancements to the A38 in the Bromsgrove and Redditch Local Plans, demonstrating that general awareness have been raised to the importance of the enhancements through the consultation and discussion of the Local Plans process leading up to the adoption of the plans in 2017.

As part of the development of the overall A38 BREP, and Phase 1 schemes specifically, there has been some targeted engagement with project partners, including with National Highways (NH).

The Stakeholder Management and Communication Plan, included as Appendix M.4, provides further details on these engagement activities. The following paragraphs summarise the engagement activities undertaken to support the business case.

8.9.2 Engagement Undertaken to Support the Business Case

During the scheme development, a range of engagement has been undertaken during the different stages of the business case development process. This has included:

- A large public engagement exercise which ran for six weeks to 20th March 2020. This gave information on the full package of highways and sustainable schemes (as they stood at that time and as shown in Figure 8.9). During this period, five public engagement sessions were held in public venues. These were promoted via the local press, social media and via the WCC website. Around 1,500 people attended. All engagement material was also available on the WCC website and in addition three unstaffed exhibition displays were placed in local libraries. 133 email responses were received.
- Regular meetings have been held with County and District Councillors.
- The scheme was presented to Cabinet on 22nd October 2020 and received endorsement.
- A further public engagement exercise was undertaken in early 2021 to specifically provide information on and discuss Schemes 1 and 6 as these were identified following the initial 2020 engagement feedback and therefore had not been included in the previous exercise. Local walking and cycling groups were also invited to comment on these Schemes. 10 respondents submitted 17 comments. The exercise did not involve community events due to

COVID-19 but focused instead on media releases directing interested parties to the County Council webpages and a letter drop to residents and businesses close to the proposed schemes.

- A pre-planning separate engagement exercise was undertaken during July and August 2021 to share proposals for the OBC stage' Schemes 3 and 5. This exercise did not involve face to face events, due to COVID-19. However, residents in both local areas were letter dropped with supporting media releases directing people to the WCC website to respond.

The original OBC stage Scheme 3 proposal involved the construction of new pedestrian/cycle bridge across the A38 from Harvington Road to Old Station Road. In order to ensure compliance with LTN 1/20 standards, the bridge design included large access ramps compared to those envisaged at SOC Stage, resulting in wider environmental and local concerns, in addition to impacts on the value for money.

- A further public engagement exercise was undertaken in summer 2022 to specifically provide information on and to discuss the replacement of the walking/cycling bridge across the A38 from Harvington Road to Old Station Road (notated as Scheme 3 in the OBC submission) with the new Scheme 3 (providing active travel corridor enhancements between Bromsgrove Town Centre and Bromsgrove Rail Station) and the introduction of a new active mode corridor improvement Scheme 9.

Following the OBC submission, an LTN 1/20 compliance assessment was undertaken which highlighted the need for traffic calming measures along the corridor which were not previously envisaged. Therefore, Scheme 9 has been introduced and includes the installation of LTN 1/20 compliant traffic calming measures to reduce the speed of vehicles and improve attractiveness for active modes. It runs parallel to the A38 from Stratford Road connecting to the recently built off road active travel corridor on Harvington Road.

In Summer 2022, an engagement exercise has been carried out to specifically provide information on and discuss the new Scheme 9 and Scheme 3 as pedestrian and cycling improvements' alternatives to the OBC stage Scheme 3. This exercise used a variety of engagement methods to promote and encourage participation including letters distribution to local residents, a press release in the local media to promote the engagement exercise, resulting in the following articles being published in the local press, and publishing in the project website. Feedback was also collated through emails, receiving a total of 100 responses. Positive feedback was received, highlighting WCC's commitment to the promotion of active travel. Appendix M.4 provides further details of main themes raised during this engagement exercise and WCC responses.

- WCC Councillors approved the overall concept of the (previously developed) scheme for the A38 in July 2018 (as the scheme stood at that time) at a meeting of the full Cabinet and supported implementation of Phase 1. WCC Councillors have been further involved in the development of the scheme during the OBC stage, via meetings and briefing sessions. The scheme which broadly forms the basis of the OBC submission was presented to Cabinet on 22nd October 2020 and received endorsement.

Due to increased inflation experienced in 2022, resulting in increased scheme cost, the scheme has been phased into Phase 3 and Phase 4. This approach has been endorsed by the Project Board and the Cabinet on the 8th December 2022. It was also communicated to the DfT in November 2022.

- As part of the design development work, there has been ongoing liaison with WCC (as the Planning Authority).
- The Screening Request was issued for statutory consultation to key environmental bodies, including the Environment Agency, Historic England, Natural England and Worcestershire Regulatory Services.

- As part of the design development work, there has been ongoing liaison with the Environment Agency on drainage and flooding related issues.
- There has been ongoing liaison with NH, both on the Phase 1 and Phase 2 schemes, and this engagement continued throughout the progression of A38 BREP into Phases 3 and 4. This is discussed further in section 8.9.3.
- The scheme is supported by WLEP, GBSLEP, Midlands Connect, Herefordshire & Worcestershire Chamber of Commerce and by 28 local businesses and developers in addition to NH and the MP for Bromsgrove as presented in the OBC submission. Renewed support letters for the FBC were received including from the MP for Bromsgrove, WLEP, Midlands Connect and NH. Scheme support letters are included in Appendix S.5 of the Strategic Dimension.

Figure 8.9 – Scope of 2020 engagement exercise

More details: http://www.worcestershire.gov.uk/info/20679/a38_bromsgrove_improvements/2163/bromsgrove_route_enhancement_programme



8.9.3 Engagement with National Highways

Engagement with NH (Midlands Operations Directorate) has been particularly important, given the role of the A38 in providing access to the SRN. Table 8.6 summarises the key stages of engagement.

Table 8.6 – Stages of engagement with NH

Date	Activity	Outcome
2019	SOC documentation was shared with NH.	NH raised no issues and provided WCC with a letter confirming their support for the scheme.
2019 to date	Ongoing discussion on A38 Part 1 schemes for M5 J4 and M42 J1.	NH has supported and part funded the Phase 1 schemes.
March 2021	Meeting held to update NH on the overall scheme, and in particular to discuss Scheme F.	NH reviewed data from the latest model output setting out the anticipated performance of Scheme F.
April 2021	Meeting held to enable NH to feedback their opinion on Scheme F.	NH reviewed Scheme F modelling and concluded that the modelling and scheme is acceptable and will not impact on the safe and efficient operation of the SRN.
August 2021	Meeting held to agree dates and procedure to review in advance of the formal submission to DfT.	It was agreed to provide NH with drafts for review mid. October 2021.
October 2021	Drafts of the OBC documents have been provided to NH.	All comments provided have been addressed. Engagement with NH will continue to provide updates on the development of the scheme including the delivery programme and construction phasing.
August 2022	General update to NH.	N/A.
November 2022	Update NH of the phasing of the scheme into phases 3 and 4.	It was agreed to provide NH with drafts for review in advance of final FBC submission.
December and	Drafts of the FBC strategic, economic, commercial and management dimensions and traffic modelling chapters have been provided to NH.	Documents have been delivered for an early review.

8.9.4 Future Communications Strategy

As presented in Appendix M.4, engagement and communication with all stakeholders will continue as appropriate during any further development of the schemes and throughout their subsequent delivery. This will include separate and more bespoke communication plans drawn up to support specific activities during the development and implementation of the schemes. WCC will work with each contractor to develop roles and responsibilities for each organisation so that these are clear, concise and attributable. Consistency of approach will be a high priority to manage the interfaces between each contractor and scheme as the programme of works progresses.

In summary, the proposed nature and frequency of future communication will vary from stakeholder to stakeholder and will involve:

- Continued regular liaison with and briefings for key stakeholders, including local County Councillors.
- Liaison with the district council and neighbouring councils.
- Sharing of information on the project at key dates during the scheme delivery.
- Sharing of key project construction activities dates, traffic management and progress.
- Dissemination of post-opening project evaluation studies, at the one-year and five-year stages after implementation.

8.10 Project Reporting

For each phase of the project, a Project Summary (PS) is prepared and approved by the Project Board. This is a 'working document' which defines:

- What the project intends to achieve.
- Who is responsible.
- How will it be achieved.
- When will it be delivered.

The PS includes a detailed project plan, which captures the 'key tasks' to be achieved prior to the project proceeding to the next stage.

The Project Board's role is to ensure that the project is developed and managed in accordance with the PS and to provide oversight and advice to the Project Manager to enable progress in a timely manner.

The Board typically meet every four weeks and its decisions are recorded and communicated to provide appropriate corporate governance for the project and its development.

Project reporting is required throughout the life of the project in the form of monthly Project Board papers which include a general position statement report, finance update, risk log, organogram and project plan as well as quarterly finance reporting, weekly updates and highlight reports.

WCC's Project Managers' Handbook provides a guide to delivering major infrastructure projects. Project reporting is a key responsibility for the Client PM. The PM will ensure that a comprehensive site team structure is set up for the governance of the project. This will include supervision and contract administration capabilities. The PM is required to report at meetings and through reports to senior officers and project teams. The following are examples of reporting required:

- Project boards –The Project Board makes ongoing decisions regarding exceptions to the project plan, budget and quality documented in standard agendas and decision and action log.
- Highlight reports – These are reported monthly and communicate work done to date, what is to be done and revises any project risks.
- Project team meetings – This takes place at all levels and include designers, contractors and WCC staff. Actions and decisions regarding progress, quality, health and safety and cost will be captured through agendas, decisions and actions logs, and will be escalated to Project Board for decision as necessary.

- Finance updates – Monthly budget sheets are issued that show costs accrued to date. The PM is required to forecast up and coming expenditure for future quarters and financial years.
- Major Projects Review – Monthly reporting is required.
- Reports to Cabinet are prepared as when required to gain approval at key project stages throughout the delivery of the project.
- Legal services and property services - Project Office meet with Legal and Property monthly to update on ongoing works and to highlight future works that will require resourcing.

Final co-ordination of commissioning the works, audit response form and snagging require careful management in order to keep within programme and constrain overall costs. The transition management plan manages project opening approval, making the scheme operational. This requires formal sign off of the implementation completion and handover report drafted by the PM.

Throughout the delivery of the scheme, various documentation will be provided to DfT. These documents will reflect DfT guidance on the Business Case process.

There is a requirement to complete Quarterly Monitoring Returns to demonstrate progress against key milestones and to record spend against budget. These returns will be prepared by the Client Project Manager and submitted quarterly in line with DfT's request. From time to time, it may be appropriate for a verbal or face-to-face progress meeting with DfT. These will be arranged at a time of mutual convenience.

8.11 Implementation of Work Streams

WCC will ensure, as the Highways Authority, smooth network operation during the construction of Phase 3 of the A38 BREP through minimising the construction impacts on the A38 and the wider road network. The contractors will seek the approval of WCC Street Works and will coordinate construction activities to ensure maintaining good local traffic flow and also confirming any road space bookings, etc. This will be done through carefully considered construction phasing of different elements of the scheme and the interaction with other schemes construction timelines. In addition, engagement and communication will continue to provide updates on timelines and activities to all stakeholders including NH and local residents.

The proposed construction phasing of Phase 3 schemes is shown in Figure 8.10. Appendix M.2 includes detailed construction programmes proposed by the preferred contractors, and agreed by WCC, of main works contract (Schemes A to F, 6 and 8), IETC (Schemes 3 and 9) and Scheme 7 works.

Table 8.7 details traffic management arrangements during the construction and future maintenance of Phase 3 schemes. Day time diversion of the A38 route will not be required as it is assumed only overnight closures. Scheme 8 will be built as part of Schemes C and D. It worth noting that the information included in this table has been used for the calculations of construction and future maintenance impacts included in the Economic Dimension.

Figure 8.10 - A38 BREP Phase 3 construction phasing

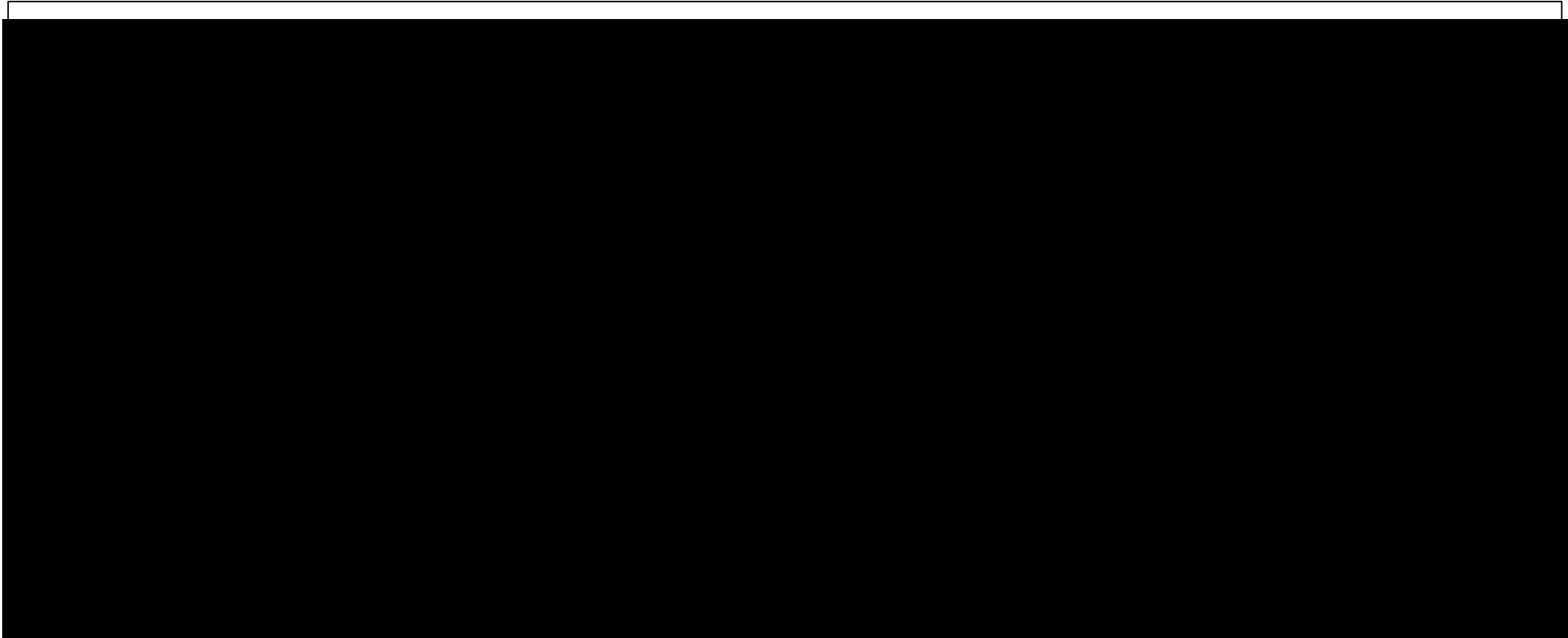


Table 8.7 - Traffic management during the construction and future maintenance of the A38 BREP Phase 3 schemes

Scheme	Construction start date	Construction end date	Construction duration	Description of traffic management	Duration of	Narrow Lanes**	Overnight works under shuttle signals***	Maintenance requirements****
A			2 weeks	Overnight narrow lanes for resurfacing and relining		2 weeks		No additional maintenance required
B			14.5 months	<ul style="list-style-type: none"> - Off peak day time traffic shuttle signals for 1 month. - Narrow lanes, 5 months for the NB carriageway, and 5 months for the SB carriageway. - Overnight shuttle signals for 2 weeks to allow resurfacing/lining works. 	1 month	10 months	1 month	Overnight traffic management required once every 5 years, and a 1-day lane closure is required every 3 years.
C			11.5 months	<ul style="list-style-type: none"> - Overnight capacity reduction for 4 weeks. - A38 NB reduced to single lane through junction for 24 weeks. - 4-way signals in place for 18 weeks. - Overnight capacity reduction at junction for 1 week to allow resurfacing/lining works. 	6 months NB 4 months SB		1 month	Overnight traffic management required once every 5 years, and a 2-week lane closure is required every 15 years.
D			10.5 months	<ul style="list-style-type: none"> - A38 NB reduced to single lane and New Road (west) reduced to single lane approach for 7 weeks. - All approaches reduced to single lane, 4 separate stage junction operation. Overnight only for 8 weeks, and 20 weeks during both day and night. - Overnight shuttle signals for 1 week to allow resurfacing/lining works. 	7.5 months NB only		1 month	Overnight traffic management required once every 5 years.
E			22.5 months	<ul style="list-style-type: none"> - A38 NB and A38 SB approach reduced to single lane entry All approaches reduced to single lane for 2 weeks. - All approaches reduced to single lane for 9 weeks. - Overnight works with shuttle signals on A38 for 2 weeks. Stratford Road diverted via New Road 	3 months		2 weeks	Overnight traffic management required once every 5 years, a 2-week overnight traffic management required once every 25 years, and a 1-week lane closure is required every 15 years.
F			7 months	<ul style="list-style-type: none"> - A38 NB and Birmingham Road reduced to single lane for 17 weeks. - Right turn into Birmingham Road banned for 8 weeks. Diversion via A38 / Stratford Road - Narrow lane on A38 SB for 4 weeks 	3 months NB only	1 month	2 weeks	Overnight traffic management required once every 5 years.

Scheme	Construction start date	Construction end date	Construction duration	Description of traffic management	Duration of reduced capacity*	Narrow Lanes**	Overnight works under shuttle signals***	Maintenance requirements****
6			2 months	Narrow lanes or some temporary traffic signals on Regents Park Road for 4 months for construction <i>Note: excluded from QUADRO traffic impacts during construction as AADT and speeds are both low.</i>				Overnight traffic management required once every 5 years.
3			9 months	Lane narrowing to allow footway widening etc. in 100m sections throughout construction period. 3 months of other works not requiring TM <i>Note: only the west side has been included in QUADRO for estimating traffic impacts during construction as AADT and speeds are both low on east of the A38.</i>		9 months		Overnight traffic management required once every 16 years.
7			2 months	Minor localised traffic management <i>Note: excluded from QUADRO traffic impacts during construction as the works are minor, AADT is low, and speeds are low.</i>				No additional maintenance required
9			4 months	- Narrow lanes on New Road for 2 months - 3 nights of overnight closure to resurface for new toucan. - 2 months of stop/go boards to install traffic calming along the Scheme 9 corridor. <i>Note: excluded from QUADRO traffic impacts during construction as AADT and speeds are both low.</i>	4 months	4 months		Overnight traffic management required once every 5 years.

*Where 2 lanes approach a junction, they reduce to 1 lane.

**11% reduction in capacity due to the use of narrow lanes.

***A maximum of 100m is allowed for the shuttle signals.

****Additional to current maintenance activities.

8.12 Key Issues for Implementation

8.12.1 Planning Strategy

A Screening Request was submitted to WCC (in their role as County Planning Authority (CPA)) in August 2020. This followed discussions with WCC officers which had previously emphasised the importance of ensuring that the impact of the cumulative scheme was considered. The Screening Request reflected the schemes, as they were at the time of submission or at the time of the modelling information used for assessment. Notably the noise and air quality modelling information did not include Scheme F and were based on based on the old OD model assessment which has been updated at a later stage based on DfT's comments on the SOC as explained further in the Strategic Dimension.

The Screening Opinion, issued in October 2020, confirmed that the WCC as CPA considered that *“the proposal would not create any significant effects on the environment by virtue of its characteristics, location and characteristics of its potential impact. Therefore, the CPA considers that the proposed development is not EIA development.”* An Environmental Statement would, therefore, not be required.

During the OBC stage and based on the updated modelling and designs technical work, WCC have confirmed that all schemes, with the exception of OBC stage Schemes 3 and 5, benefit from permitted development rights, falling under Schedule 2, Part 9, Class A of the Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended). Since then, Scheme 5 has secured a grant of planning permission.

After the submission of the OBC, the following changes to the scheme have been reflected in all updated technical work:

- The replacement of the OBC stage walking/cycling bridge from Harvington Road to Old Station Road with the new Scheme 3 active travel corridor enhancements, due to wider environmental and local concerns, in addition to impacts on the value for money.
- The introduction of a new active mode corridor improvement scheme, namely Scheme 9, in order to ensure compliance with LTN 1/20 standards.
- Due to higher inflation experienced in 2022, resulting in increased scheme cost, schemes have been separated into Phase 3 and Phase 4 (described in section 8.2 above) which has been endorsed by the Project Board and the Cabinet on the 8th December 2022, and was also communicated with DfT in November 2022.

Following these changes, WCC as CPA requested that a new Screening Opinion be submitted based on both Phases 3 and 4, despite the fact that Phase 4 will be subject to a separate business case once alternative funding are identified.

Hence, an updated Screening Opinion has been sought in winter 2022 based on the updated traffic model output and the latest designs that include both Phases 3 and 4 and has reconfirmed in February 2023 the PD rights as the previous 2020 screening decision.

8.12.2 Environmental Consents

An update to the analysis of environmental issues has been undertaken as part of the scheme development process and is included within the Environmental Report (Strategic Dimension, Appendix S.3). This review has highlighted that some of the proposed highway works are in close proximity to watercourses and as such the following consents may be required:

- Environmental permit (previously known as a Flood Defence Consent) – required for works on or near a main river, on or near a flood defence structure or in a flood plain.
- Ordinary watercourse consent – for works on or near all other watercourses (not main river or sea). This is applied for by contacting either the Internal Drainage Board (IDB) or the lead local flood authority or the Environment Agency.

The works may also have a potential impact on species and may require a Protected Species Licences from Natural England for individual species (e.g. Badgers, Great Crested Newts, Bats, Otters etc.). The level of tree felling across the scheme also results in the likely requirement to gain felling licences from the Forestry Commission. Activities within areas covered by Tree Protection Orders (TPOs) will also require a licence from the local authority (Bromsgrove District Council).

The areas where specific environmental issues are noted in Table 8.8 below. Further investigation, pre-construction survey and liaison with the appropriate stakeholders will be required prior to the commencement of construction of different elements of the scheme and it will follow the construction sequence.

Table 8.8 – Environmental licensing/consenting requirements

Scheme	Environmental license or consent required
A	<p>TPOs – Application for consent must be made to Bromsgrove District Council in advance of any works to trees designated as TPO; together with landowner consent. This must be in the form of written consent.</p> <p>Trees – If more than 5m³ of timber felled within a landholding within a calendar quarter a felling licence maybe required from the Forestry Commission, this is likely to carry a restock condition.</p>
B	<p>Watercourse - An Environmental Permit from the Environment Agency will be required for works to the channel banks and in close proximity to the Sugar Brook, designated as a Main River by the Environment Agency.</p> <p>Sewer - a consent will be needed from Severn Trent Water for a new connection to the public sewer.</p> <p>TPOs – Application for consent must be made to Bromsgrove District Council in advance of any works to trees designated as TPO; together with landowner consent. This must be in the form of written consent.</p> <p>Trees – If more than 5m³ of timber felled within a landholding within a calendar quarter a felling licence maybe required from the Forestry Commission, this is likely to carry a restock condition.</p> <p>Badger - If badger sett usage is confirmed during camera trap monitoring surveys and disturbance is likely as a result of the works then a Protected Species Licence from Natural England will be required.</p> <p>Bats – Inspections (Bat Roost Assessments) on trees with bat roost potential (BRP) within the scheme extents. If a bat roost is found, then a European Protected Species</p>

Scheme	Environmental license or consent required
	<p>Licence from Natural England will be required if the roost is likely to be disturbed or damaged during the construction works.</p> <p>Otter - If signs of otter are found during pre-construction surveys and disturbance is likely as a result of the works then a European Protected Species Licence from Natural England will be required.</p> <p>Water vole - If signs of water vole are found during pre-construction surveys and disturbance is likely as a result of the works then a Protected Species Licence from Natural England will be required.</p>
C*	<p>Watercourse – An Environmental Permit from the Environment Agency will be required for working within close proximity to the Spadesbourne Brook and Sugar Brook, both designated as Main River by the Environment-Agency. An Environmental Permit will also be required for any new or altered structures in the vicinity of a Main River, for example outfalls, walls, culverts and bridges. Note that a major culvert is to be extended in this area.</p> <p>TPOs – Application for consent must be made to Bromsgrove District Council in advance of any works to trees designated as TPO; together with landowner consent. This must be in the form of written consent.</p> <p>Trees – If more than 5m³ of timber felled within a landholding within a calendar quarter a felling licence maybe required from the Forestry Commission, this is likely to carry a restock condition.</p> <p>Badger - If badger sett usage is confirmed during camera trap monitoring surveys and disturbance is likely as a result of the works then a Protected Species Licence from Natural England will be required.</p> <p>Otter - If signs of otter are found during pre-construction surveys and disturbance is likely as a result of the works then a European Protected Species Licence from Natural England will be required.</p> <p>Water vole - If signs of water vole are found during pre-construction surveys and disturbance is likely as a result of the works then a Protected Species Licence from Natural England will be required.</p>
D*	<p>Trees – If more than 5m³ of timber felled within a landholding within a calendar quarter a felling licence maybe required from the Forestry Commission, this is likely to carry a restock condition.</p> <p>Badger - If badger sett usage is confirmed during camera trap monitoring surveys and disturbance is likely as a result of the works then a Protected Species Licence from Natural England will be required.</p> <p>Bats – Inspections (Bat Roost Assessments) on trees with bat roost potential (BRP) within the scheme extents. If a bat roost is found, then a European Protected Species Licence from Natural England will be required if the roost is likely to be disturbed or damaged during the construction works.</p>
E	<p>Watercourse - The works are in close proximity to the Burcot Brook, which is classified as an Ordinary Watercourse. Land Drainage Consent will need to be obtained from the Lead Local Flood Authority (North Worcestershire Water Management on behalf of Worcestershire County Council) for any structures, for example outfalls, which impinge upon the existing channel profile and for any culvert works.</p>

Scheme	Environmental license or consent required
	<p>Trees – If more than 5m³ of timber felled within a landholding within a calendar quarter a felling licence maybe required from the Forestry Commission, this is likely to carry a restock condition.</p> <p>Badger Requirement for a licence from Natural England to disturb a main badger sett. Sett monitoring (e.g. using camera traps) has confirmed badger usage of main sett. If badger usage of non-main setts is confirmed during camera trap monitoring surveys and disturbance is likely as a result of the works, then a Protected Species Licence from Natural England will be required for these setts too.</p> <p>Bats – Inspections (Bat Roost Assessments) on trees with bat roost potential (BRP) within the scheme extents. If a bat roost is found, then a European Protected Species Licence from Natural England will be required if the roost is likely to be disturbed or damaged during the construction works.</p> <p>Otter - If signs of otter are found during pre-construction surveys and disturbance is likely as a result of the works then a European Protected Species Licence from Natural England will be required.</p>
F	<p>Watercourse – None anticipated, though it should be noted that the Spadesbourne Brook (Main River) passes beneath the A38 in culvert just south of the junction with Birmingham Road.</p> <p>Trees – If more than 5m³ of timber felled within a landholding within a calendar quarter a felling licence maybe required from the Forestry Commission, this is likely to carry a restock condition.</p> <p>Badger - If badger sett usage is confirmed during camera trap monitoring surveys and disturbance is likely as a result of the works then a Protected Species Licence from Natural England will be required.</p> <p>Bats – Inspections (Bat Roost Assessments) to be carried out on trees with bat roost potential (BRP) within the scheme extents. If a bat roost is found, then a European Protected Species Licence from Natural England will be required if the roost is likely to be disturbed or damaged during the construction works.</p> <p>Great Crested Newt – In the unlikely event that a great crested newt is found on site during works, a European Protected Species (EPS) licence from Natural England may be required.</p> <p>Otter - If signs of otter are found during pre-construction surveys and disturbance is likely as a result of the works then a European Protected Species Licence from Natural England will be required.</p> <p>Water vole - If signs of water vole are found during pre-construction surveys and disturbance is likely as a result of the works then a Protected Species Licence from Natural England will be required.</p>
3	<p>Watercourse - The works cross the Warwick Brook, which is classified as an Ordinary Watercourse. Land Drainage Consent will need to be obtained from the Lead Local Flood Authority (North Worcestershire Water Management on behalf of Worcestershire County Council) for any structures, for example outfalls, which impinge upon the existing channel profile and for any culvert works.</p> <p>Bats – Inspections (Bat Roost Assessments) to be carried out on trees with bat roost potential (BRP) within the scheme extents. If a bat roost is found, then a European Protected Species Licence from Natural England will be required if the roost is likely to be disturbed or damaged during the construction works</p>

Scheme	
6	Trees – If more than 5m ³ of timber felled within a landholding within a calendar quarter a felling licence maybe required from the Forestry Commission, this is likely to carry a restock condition.
7	None Required
9	Trees – If more than 5m ³ of timber felled within a landholding within a calendar quarter a felling licence maybe required from the Forestry Commission, this is likely to carry a restock condition.

* Scheme 8 will be built as part of Schemes C and D.

8.12.3 Other Consents

In addition to the environmental consents set out above, a range of other statutory provisions will be required that include Traffic Regulation Orders (TROs), Controlled Crossing Applications and procedures related to Public Rights of Way (PRoW). Table 8.9 presents the required consent for the A38 BREP Phase 3 schemes.

Table 8.9 – Other consents required

Scheme	TROs	Controlled Crossing Application	PROWs	S50 of the Highways Act	F10 CDM 2015	Road Hump Consultation	Stopping Up Order
A	None	None	None	Yes	None	None	None
B	Yes	Yes	Yes (Temporary)	Yes	Yes	None	None
C*	None	Yes	None	Yes	Yes	None	Yes
D*	None	None	None	Yes	Yes	None	None
E	Yes	Yes	None	Yes	Yes	None	None
F	Yes	None	None	Yes	Yes	None	None
3	Yes	None	Yes	Yes	Yes	None	
6	None	None	None	Yes	Yes	Yes	None
7	None	None	None	Yes	Yes	None	None
9	Yes	Yes	None	Yes	yes	None	None

*Scheme 8 will be built as part of Schemes C and D.

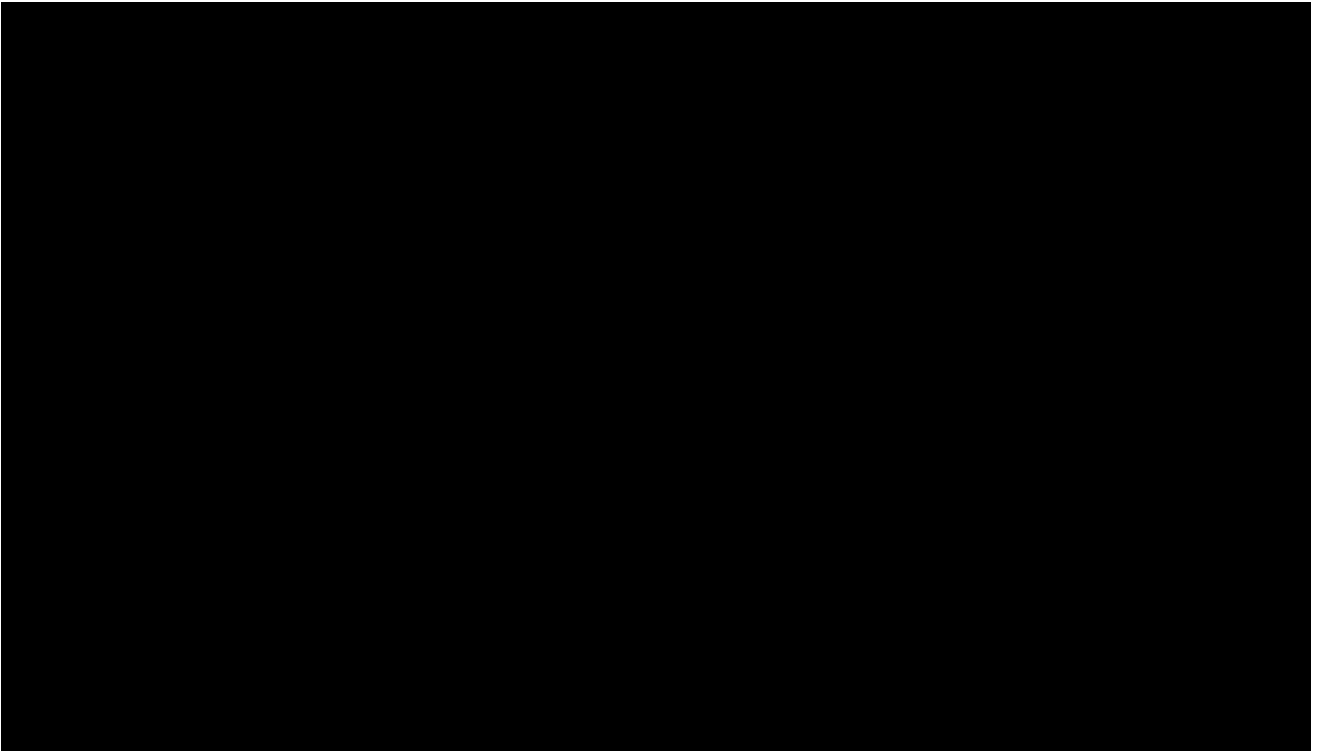
8.12.4 Land Take

The package of measures has been developed with the objective of ensuring that works remain within the highway boundary, in order to avoid where possible the need for land acquisition. For most of the schemes within the package this can be achieved. However, land is required for some elements, as shown in Table 8.10.

Although the land and rights to be acquired are expected to be secured by agreement with the relevant landowners (and negotiations are continuing in this regard) WCC has proceeded to make “The Worcestershire County Council A38 Bromsgrove Route Enhancement Programme Compulsory Purchase Order 2023”. The Order was sealed on 2nd March 2023. In accordance with

statutory requirements, Notice of the making of the Order was published in a local newspaper (The Bromsgrove Standard) on 3rd March and 10th March 2023.

Table 8.10 – Land take required



8.13 Contract Management

Essential to the successful running of the contract are high-quality project management skills, complemented by specialist cost control expertise and sufficient support resources. These are required from the outset of project development right through to post-completion. By carrying forward the project team and governance structure already in place to deliver the Phases 1 and 2 (early delivery schemes), and utilising WCC chain of suppliers, this bid benefits from an established process, with a clear process for assurance and approvals.

Lucy Cooper has been appointed as NEC4 Client Project Manager in accordance with the NEC Conditions of Contract. The project governance structure has fully been described in Figure 8.8 above.

The NEC4 Engineering and Construction Contract applies to both procurement approaches, namely the main works tender contract and the IETC. This allows for individual projects/schemes to be defined via task orders. For each of the schemes, a task order will be developed as a collaborative process between the WCC Commissioner and the contractor Project Manager. The task order will include details of the scope, programme, cost, constraints etc of each scheme.

Project reporting is defined in the tender documents and will be via the WCC appointed Client Project Manager to the WCC Project Board which will meet on a regular basis.

8.14 Risk Management Strategy

The accurate evaluation and pro-active mitigation of risk is critical to the success of the project. To ensure that all risks were captured a risk register has been maintained from an early stage and is included as part of the FBC.

8.14.1 Risk Register

Phase 3 risk register has been further developed through the FBC development stage and in response to the advancing engineering designs, the procurement process, identification and negotiation with preferred contractors. It is included as Appendix M.5.

Relevant owners have been allocated for each risk and progress on the management of the key risks is discussed at each Project Board meeting.

The risk register logs the full spectrum of potential risks to the planning and delivery of the scheme, covering the following categories:

- Strategic (issues relating to 'fit' with other schemes, and relationship with housing growth).
- Political.
- Legislative and statutory powers.
- Financial.
- Design, construction and environmental.

The risk register will continue to be reviewed on a regular basis. As the project moves forward into the scheme delivery stage, contractors' teams are responsible for managing their risks and reporting any newly identified risks to the Project Owner and Board.

Risks escalated to Medium or High which could impact on the progress or financial position of the project will be referred by the Project Manager to the Project Board. The top 10 key risks at the FBC stage are listed in Table 8.11.

Table 8.11 – Top 10 Key project risks and risk management strategy.

Key Risks	Mitigation
Increased inflation on top of inflation allowed for by contractors.	Tender prices have been inflated by forecast rates (BCIS) to achieve outturn costs. Following on from recent events there is a clear risk that inflation may exceed these forecast values. These increases would be beyond the control of WCC and would relate to external factors. DfT have made it clear that risk of inflation above and beyond that presented with the FBC falls with WCC. A financial allowance within the risk assessment has therefore been made to allow for inflation above and beyond that current forecast.
Unforeseen ground conditions including contaminated land leading to increase in costs/ programme delay.	A detailed ground investigation has been undertaken as part of the detailed design process. This has not highlighted the presence of any contaminated land within the corridor. WCC experience within the corridor has identified the potential for small pockets of contaminated land may be present, but not identified by the GI. Cost of remediating contaminated land can be significant, therefore can present an on-going risk during the construction phase. An appropriate risk allowance is required to cover the cost of any unforeseen contaminated land issues.
Potential for WCC to incur 5% pain through contract mechanism.	As part of the NEC4 option C works contract, a pain / gain mechanism is in place to incentivise the contractor to deliver the scheme on time and on budget. The worst-case impact this can have is that WCC would have to pay an additional 5% of the contract value. This is predominantly mitigated by strict financial control in terms of budget and programme through the contract process and delivery. An appropriate risk allowance is however included.
Streetworks lane rental may be introduced to Scheme F adding to the costs (potential to be £2.5k per day).	In line with overall policy, WCC may introduce a lane rental scheme for roadworks on a county wide basis. Ongoing engagement will be undertaken to understand potential implementation of lane rental scheme and programming works to minimise construction costs. Lane rental is applied for schemes with a construction start date after April 2024. An appropriate risk allowance is however included.
Streetworks lane rental may be introduced to Scheme C adding to the costs (potential to be £2.5k per day).	In line with overall policy, WCC may introduce a lane rental scheme for roadworks on a county wide basis. Ongoing engagement will be undertaken to understand potential implementation of lane rental scheme and programming works to minimise construction costs. Lane rental is applied for schemes with a construction start date after April 2024. An appropriate risk allowance is however included.
Additional cost to	Strenuous efforts have been made throughout the design process to identify all statutory undertakers' plant that requires diversions including GPR, drainage surveys etc. There always remains a risk of either new plant being in the ground between design and delivery and or unidentified plant being present. The design process has identified utility clashes, and this has been managed through C3 enquires and appropriate mitigation and design iterations to reduce impact on scheme cost. Ongoing engagement with utility companies will be undertaken.

Key Risks	Mitigation
	An appropriate risk allowance is however included.
Potential for Utilities costs to increase between C3 and C4 stage.	<p>Current designs and utility costs are based upon the C3 estimates. The cost of utility diversions may well change throughout the construction process. In addition, certain diversions may not be required.</p> <p>WCC have sort through engagement with the utility companies, surveys and assessments as part of the design process to fully understand the impacts on utilities and mitigate as far as possible the need for diversions. There however remains a significant risk that costs will increase between C3, C4 and further iterations of and interaction with the various stats companies. The works contractors in tandem with WCC will seek to work with the various stats companies to optimise the scheme and minimise the impacts on statutory undertakers' plant.</p> <p>An appropriate risk allowance is however included.</p>
Significant traffic delays during construction period resulting in adverse public perception greater than would normally be expected. Additional management time required to deal with concerns. Potential for amendments to scheme being required to address concerns.	<p>As part of the main works tender process, significant discussions have already taken place between the preferred contractor and WCC permitting team (responsible for road works approvals) to understand what traffic management during construction would be acceptable by WCC.</p> <p>As part of the tender appraisal process, preliminary traffic management proposals have been submitted which have been reviewed by WCC and assessed as part of the appointment process. In addition, the contractors are obliged to undertake an ongoing dialog with key stakeholders within the Bromsgrove area.</p> <p>An appropriate risk allowance is however included.</p>
Restricted hours of operation due to proximity of properties / noise issues, leading to delay and additional costs.	<p>As part of the main works tender process, the contractor was made aware of all the restrictions that have been placed in terms of working hours within the corridor (environmental and traffic related) and the tender makes allowances for these restrictions. Ongoing dialog will be maintained with all parties to assure that these do not create issues and problems for all parties going forward.</p> <p>An appropriate risk allowance is however included.</p>
Delays in response from DfT/WLEP may cause delays in approvals.	Throughout the development of the FBC the Client PM team have had ongoing engagement with the DfT and the WLEP to establish approval times. Ongoing engagement will take place post submission to monitor and manage delays.

8.14.2 Quantified Risk Assessment (QRA)

The OBC stage risk register/QRA has been updated to reflect the changes during the preparation of the FBC. These updates include changes to the scheme elements/phasing, progression of designs and most importantly, the procurement returns of both main work tender and IETC' contractors.

The process of updating the risk register/QRA made sure that there is no double counting of risks included in the contractors returns/prices received and the updated scheme overall QRA and considered the risk sharing strategy documented in the contracts' terms and conditions.

The main purpose of the QRA is to support the scheme cost by predicting the level of risk contribution, having a defined level of confidence, to cover the construction of Phase 3 schemes. For the risk model the following were used as key inputs:

- Outturn investment cost is [REDACTED]
- Risk register – developed via group consensus at various workshops.
- Quantification of the risks – using impact estimates of cost and probability.

@Risk software was used to obtain a risk value. The P(mean) value of [REDACTED] has been used in the Financial Dimension. Therefore, the A38 BREP Phase 3 outturn scheme cost is [REDACTED]. It should be noted that this excludes Phase 2 early delivery schemes (Schemes 2a, 2b and 4).

8.14.3 Risk Management Strategy

Using the updated Phase 3 risk register and QRA as a basis, the risk management strategy will then look to avoid or reduce the risks. Risk management is embedded into the project delivery. The risk register will continue to be reviewed on a regular basis.

At the project delivery stage, WCC delivery teams and contractors will be responsible for managing their risks and reporting any newly identified risks to the Client Project Manager. Risks escalated to Medium or High which could impact on the progress or financial position of the project will be referred by the Project Manager to the Project Board.

The Council has an overall framework for managing risk. Primary responsibility for managing risk on a day-to-day basis rest with those operational/strategic/project managers who are closest to the service/project and responsible for its delivery. Risk registers identifying key risks and mitigating actions are used as a record and tool for monitoring this work. At Assistant Director and Directorate level there are aggregated risk registers which identify the top risks at that level, and the actions in place to address these risks. Based on these, a corporate level Risk Register is drawn which identifies the top risks for the Council and actions in place. These top-level risk registers are reviewed on a quarterly basis, and a report on the Corporate Risk Register is taken to Cabinet and the Audit and Governance Committee twice a year.

For all Phase 3 procurement routes (IETC, main works contracts and public transport scheme) an assessment has been undertaken on how the types of risk might be apportioned or shared, with risks allocated to the party best placed to manage them, subject to achieving value for money. Each contract includes clauses to facilitate the transfer of appropriate risks from WCC to the contractor, where most construction risks have been transferred to the contractors. Contracts include the development of a risk register which is updated at regular intervals over the duration of the contracts.

The following points illustrate how the risk of costs being higher than originally predicted is dealt with:

- Cost increases due to inflation before the start of construction of individual schemes are estimated in the Finance Dimension/costing using the latest industry inflation rates and are borne by WCC.

- Cost increases (including inflation) after the start of construction of individual schemes are transferred to the contractors as these are included in the tender returns.
- The scheme risk allows for WCC generic risks including inflation on top of latest industry inflation rates.

For each contract the allocation of risks resulting from the contractual and procurement arrangements is summarised in Table 8.12, Table 8.13 and Table 8.14 below. Ticks have been provided to indicate where each risk type rests or whether these risks are shared between the two.

Table 8.12 - Risk allocation of the IETC contract (Schemes 3 and 9)

Risk Category	WCC	Supplier	Shared
Design		✓	
Design approvals	✓		
Public engagement/liaison	✓		
Sequencing	✓		
Traffic management		✓	
Construction		✓	
Implementation			✓
Operations	✓		
Termination			✓
Financing	✓		
Legislative			✓

Table 8.13 - Risk allocation of the main works contract (Schemes A to F, 6 and 8)

Risk Category	WCC	Supplier	Shared
Public engagement/liaison			✓
Sequencing		✓	
Traffic management		✓	
Sequencing and traffic management approvals	✓		
Construction		✓	
Implementation			✓
Operations	✓		
Termination			✓
Financing	✓		
Legislative			✓

Table 8.14 - Risk allocation of WCC' Public Transport Department supply chain Schemes 7

Risk Category	WCC	Supplier	Shared
Public engagement/liaison			✓
Sequencing and traffic management approvals	✓		
Construction		✓	
Implementation			✓
Operations	✓		
Termination			✓
Financing	✓		
Legislative			✓

8.15 Monitoring & Evaluation Plan

An updated Phase 3 monitoring and evaluation and benefits realisation plan is provided in Appendix M.6.

This plan provides details about the monitoring that will be undertaken by WCC to demonstrate whether the project is on time and to budget, whether the predicted benefits were achieved and what lessons could be learnt for future WCC transport strategies and projects. It should be noted that the monitoring and evaluation assessment is inclusive of transport user carbon impacts, in line with the economic appraisal, once the scheme is operational. The method and frequency of data collection has been set out within the plan, along with locations of data collection and information on the approach taken to project governance. Monitoring data will be collected on the following data sets:

- M1: Outturn Costs.
- M2: Delivered Scheme.
- M3: Scheme Build.
- M4: Travel Demand.
- M5: Travel Times and Reliability.
- M6: Junction Performance.
- M7: Pedestrian and Cycle Counts.
- M8: Stakeholder Feedback.
- M9: Development Applications and Completions.
- M10 Impact on the Economy.
- M11: Carbon.
- M12: Noise.
- M13: Air Quality.
- M14: Accidents.

- M15: Travel surveys.

The monitoring and evaluation plan methodology is compliant with TAG Unit E-1 (November 2022) guidance and DfT's 'Major Road Network – Appraisal, Modelling and Evaluation (November 2022)' workshop, which is intended to be adhered to in conjunction with the Treasury's Magenta Book (2020). Whilst the aforementioned TAG unit does not attempt to provide detailed and encompassing instructions on how to monitor and evaluate all transport interventions, it aims to establish some common principles which can guide monitoring and evaluation activity for a wide range of interventions.

Other complementary government guidance relating to monitoring and evaluation has also been employed where applicable for an MRN submission. This includes DfT's 'Monitoring and Evaluation Framework for Local Authority Schemes,' published by DfT in 2012, as well as the first 'Monitoring and evaluation strategy' published by DfT on 27th March 2013, which has since been refreshed on 20th June 2022 in DfT's 'evaluation strategy and programme 2022'. In addition to this, Worcestershire County Council Major Schemes Monitoring & Evaluation Framework' (2020) has been implemented to guide the development of this Plan.

8.15.1 Benefits Management and Evaluation Realisation Plan

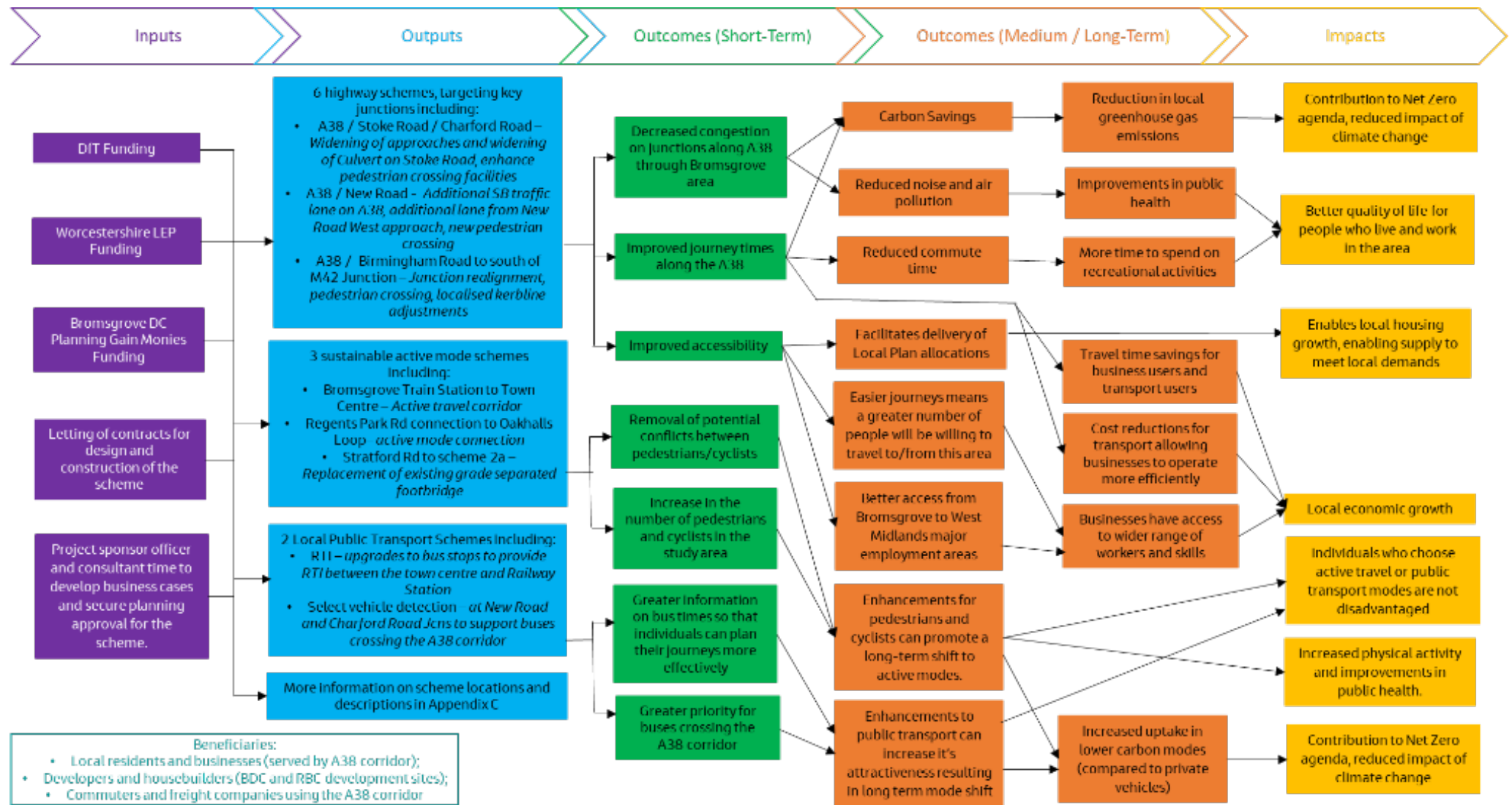
As part of the monitoring and evaluation exercise, a benefits management and realisation plan has been developed as part of the monitoring and evaluation plan (Appendix M.6). This sets out the approach taken to determine the projected benefits, impacts, objectives and monitoring of impacts. It incorporates the scale and type of the scheme plus the resources available and has been developed in accordance with TAG Unit E-1 (November 2022). Supplementary, supporting guidance from DfT's 'The Monitoring and Evaluation Framework for Local Authority Major Schemes (September 2012)' has also been implemented in the development of this Benefits Realisation Plan along with the recently updated guidance - 'DfT evaluation strategy and programme 2022'.

Benefits realisation sections of the plan sets out an approach which is intended to:

- Profile all of the benefits and demonstrate how they are forecast to be realised from baseline to target, including baseline and measurement information; and
- Ensure that the scheme is delivering its objectives and intended outcomes, as well as that benefits are managed and monitored beyond project closure.
- Monitoring outputs, outcomes and desired impacts have all been defined within the plan.

Figure 8.11 presents the logic map which identifies how inputs, outputs, outcomes and impacts are interlinked within the proposed scheme, as detailed in Appendix M.6.

Figure 8.11 - Logic map of Phase 3 of the A38 BREP schemes



8.16 Carbon Management Plan

In support of the United Kingdom's legal commitment to becoming net zero by 2050, the DfT requires all scheme promoters who are developing business cases for transport schemes to consider the management and reduction of whole life carbon emissions, detailed in the form of a Carbon Management Plan (CMP).

The term 'carbon' is used throughout the CMP document (Appendix M.7) to refer to the carbon dioxide equivalent of all greenhouse gases (quantified in 'tonnes of carbon dioxide equivalent', shortened to tCO₂e). This CMP meets the requirements of WCC to produce a project level plan, setting out how carbon will be managed and reduced on the project and the steps that will be taken to quantify, monitor and report on carbon as part of project delivery.

The scope of this CMP relates to the elements of design and construction that are within the direct control or indirect influence (e.g. through contractual agreement) of WCC; for clarity, this includes the carbon emissions associated with Schemes A to F and Scheme 6 of A38 BREP Phase 3. This includes the design, materials and construction activities, as well as emissions associated with the operation and maintenance of the finalised delivered works. This excludes Schemes 3, 7 and 9 because it is not possible to amend the Terms & Conditions of the existing WCC IETC or the public transport scheme contract and so it is not possible to include carbon management at this stage.

At this FBC stage, the whole lifecycle carbon emissions baseline, as defined in the CMP life cycle stage study boundary for the A38 BREP Phase 3 package of works listed above, is 16,461 tCO₂e. The majority of capital carbon across the package of works is contributed from the embodied carbon associated with construction materials, specifically from pavement works and bulk materials (including aggregates, asphalt and concrete). Therefore, carbon reduction opportunities should focus on reducing the quantity of bitumen and bulk materials used throughout the A38 BREP Phase 3 package of works.

For each scheme in progress, the Contractor will complete the National Highways Carbon Tool on a quarterly basis and provide a Carbon Expended report. Key Performance Indicators (KPIs) will be agreed between WCC and the Contractor. Performance against KPI will be monitored to encourage the pro-active management of carbon emissions by all value chain partners. As a minimum, the Contractor will: log at least one implemented carbon and cost saving, and report on Carbon/Cost Metric: tCO₂e/£100,000 construction cost.

An appraisal of road users' carbon emissions was undertaken (as presented in Chapter 5 Economic Dimension of this FBC) for a Do Minimum (without A38 Phase 3 schemes in place but includes Phases 1 and 2 schemes) and Do Something (with all A38 Phase 3 schemes going forward, including schemes 3, 7 and 9) scenarios. Carbon emissions were estimated using Defra's Emission Factors Toolkit (EFT), version 11, for all road links within Traffic Reliability Area (TRA). The net road-user carbon (difference between a Do Something against a Do Minimum) over the 60-year appraisal (years 2025 – 2084) was estimated to be 97,059 tCO₂e. These emissions were not added in the whole life carbon assessment presented in section 5.8 of the CMP due to different spatial boundary of capital and operational carbon (which cover only Schemes A to F and Scheme 6).

During the operation phase of the schemes, monitoring of road users' carbon will be undertaken by WCC. For details about road users carbon monitoring refer to Appendix M.6 of the Management Dimension: Monitoring and Evaluation and Benefits Realisation Plan.

This CMP is a live document that will continue to be reviewed and updated as the A38 BREP Phase 3 project progresses through subsequent delivery stages, in line with the carbon management process set out in PAS 2080 Carbon Management in Infrastructure (PAS 2080) and the DfT's requirement for the monitoring and reduction of whole life carbon across the scheme. The CMP document will enable those delivering later phases to include reductions, and implement the opportunities identified in earlier phases to support carbon management throughout project delivery.

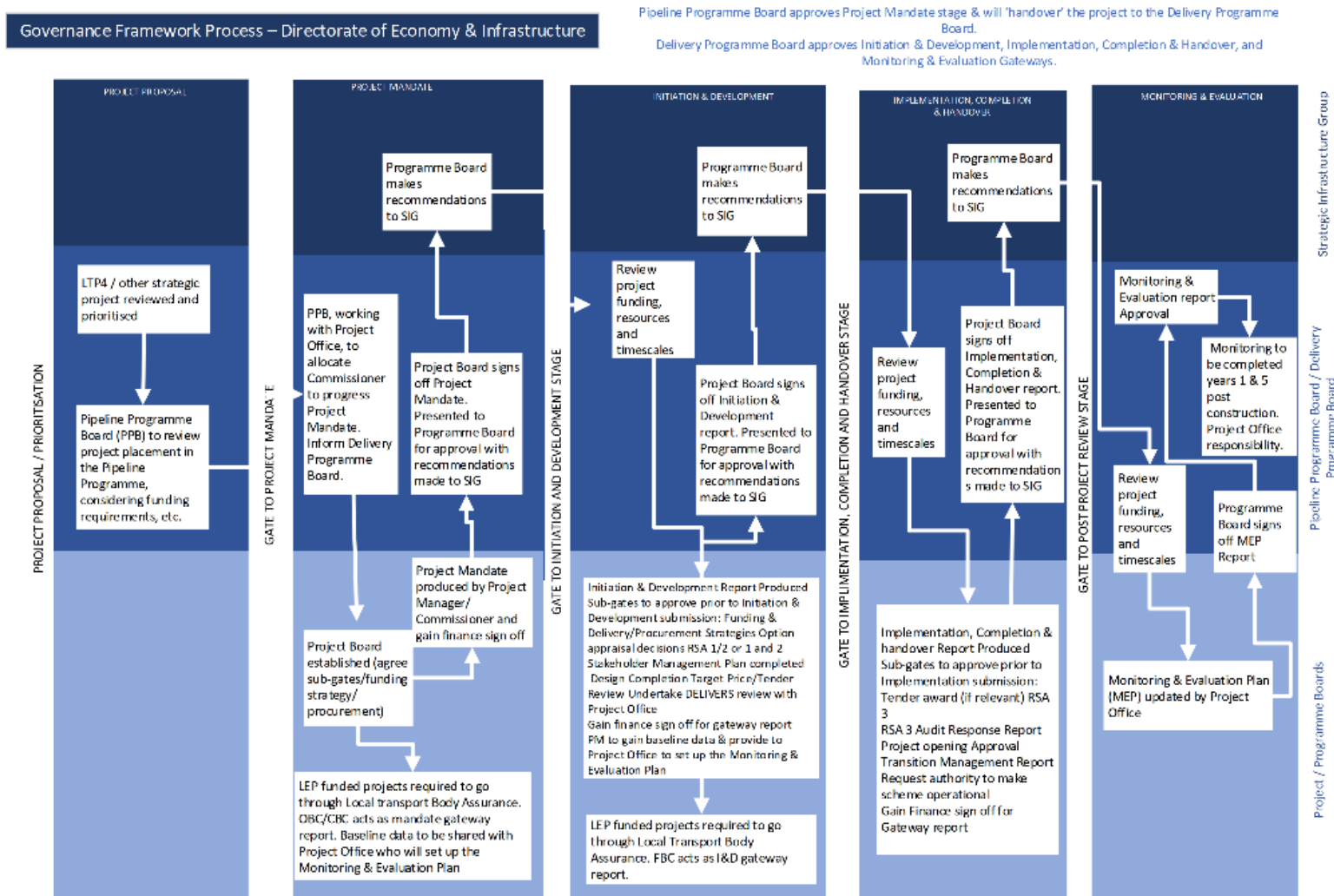
8.17 Programme/Project Review and Evaluation

The Project Board is responsible for Project Assurance, ensuring that the project remains on target in terms of business, user and technical objectives. This includes conducting Gateway Reviews at key stages in the project life cycle to determine whether or not the project can proceed to the next stage. The council is following the guidance of Gateways Review process set out by the Infrastructure Project Authority (IPA). Gateway reviews are undertaken at the following stages:

- Gateway Review 0 - Strategic Assessment. An internal review by the project board that investigates the direction and planned outcomes of the project.
- Gateway Review 1 - Business Justification. This first project review comes after the Strategic Outline Business Case has been prepared. It focuses on the projects business justification prior to the key decision on approval for development proposal.
- Gateway Review 2 - Delivery Strategy. This review investigates the Outline Business Case and the delivery strategy before any formal approaches are made to prospective suppliers or delivery partners.
- Gateway Review 3 - Investment Decision. This review investigates the Full Business Case and the governance arrangements for the investment decision. The review takes place before a work order is place with a supplier and funding and resources committed.
- Gateway Review 4 - Readiness for service. This review focuses on the readiness of the organisation to go live with the necessary business changes, and the arrangements for management of the operational services.
- Gateway Review 5 - Operations Review and Benefits Realisation. This review confirms that the desired benefits of the project are being achieved, and the business changes are operating smoothly. The review is repeated at regular intervals during the lifetime of the new service/facility.

Gateway Reviews include a Stage Gate Assessment prior to Programme Entry submission. The key stages, illustrated in Figure 8.12, relate to the typical way in which WCC works (based on previous experience of working with the DfT).

Figure 8.12 – Project governance, approval and funding stages for WCC projects.



Regular Project Boards and Major Project Reviews are held throughout the life of the project, with monthly highlight reports submitted and reported on at Programme Boards.
 Project Team must follow the Project Checklist in provision of all project tasks throughout the life of the project.

The key stages of the WCC process, shown in Figure 8.12 relate to the business case development stages as follows:

- Gate to mandate - Gateway Review 0. The mandate was approved at WCC's Strategic Infrastructure Group on 1st February 2017.
- Gate to initiation and development stage – Gateway stages 1 and 2. Gateway Stages 1 and 2 Review has been undertaken by Local Partnership on behalf of WCC in October 2021. It has been based on a review of the full suite of OBC stage documentation. The review report was included as OBC submission Appendix M.3.
- Gate to investment decision stage – Gateway stage 3. Similar to the previous review stage, Gateway stage 3 Review has been undertaken by Local Partnership on behalf of WCC in February 2023 based on a review of the FBC stage documentation. The primary purpose of the Local Partnerships Gateway 3 Review was to confirm the business case and benefits plan in the expectation that the bid information has been confirmed and check that all the necessary statutory and procedural requirements were followed throughout the procurement process. The review report is included as Appendix M.3.

Key extracts from the gateway review are summarised below:

- *The Review Team finds that the A38 BREP Phase 3 Team is experienced in project delivery and should meet the challenges that present themselves to the project. The team is led by an experienced SRO who is enthusiastic and determined to deliver successfully.*
- *The Full business case (FBC) is comprehensive and is a solid basis with an indicative good BCR of 2.6, which is high VfM.*

Table 8.15 below presents key recommendations of Stage 3 Review along with WCC's responses to the recommendations.

Table 8.15 - Local Partnership review key recommendations

Ref	Recommendation	Critical /Essential /Recommended	WCC Response
1	The Project Team should check the traffic modelling basis and ensure assumptions and data are appropriate and valid.	Ongoing - essential	The traffic modelling used for the FBC is consistent with the approach used for preparing and submitting the OBC. The DfT's comments on OBC modelling were duly addressed and have now been incorporated into the modelling carried out for preparing the FBC. Certain changes (e.g. use of Temprow 7.2 instead of Temprow 8) have already been discussed and agreed with the DfT. The changes to the scheme between OBC and FBC have also been incorporated in the modelling.
2	The Project Team should study the broader benefits potential of BREP Phase 3 and establish links to other more place-based activity within the Council/LEP area.	Recommended (within 6 months)	Assessment of Wider Economic Impacts (WEI) and place-based assessment has been carried out using the DfT's latest guidance and advice. Whilst wider benefits have been incorporated in the Economic Dimension, place-based assessment has been incorporated in the Strategic Dimension of the A38 BREP Phase 3 Full business case. Certain elements of both the wider benefits and place-based assessment would also be studied at scheme evaluation stage.
3	The Project Team should continue to keep close oversight of the land assembly workstream and closely monitor its interaction with the project timetable.	Ongoing - critical	A Compulsory Purchase Order (CPO) has been made and published. An indicative programme is in place to understand the interactions with the critical path of the overarching programme. The team will continue to meet regularly to monitor progress. This will also be covered as an agenda item at Project Board meetings. Land negotiations continue in parallel and are the preferred option to achieve the land purchases. It is hoped that making the Compulsory Purchase Orders will help move forward these negotiations.
4	The Stakeholder Management and Engagement Plan should be comprehensively reviewed, updated and resourced in preparation for mobilisation and implementation of works following approval of the FBC.	Critical (within 1 month)	The Stakeholder Management and Engagement Plan is a live document and will be reviewed regularly. The plan will be developed to include roles and responsibilities for each organisation so that these are clear, concise and attributable. Now that we have identified works contractors, the plan and strategy will be developed to assess and mitigate disruption during construction with each contractor. Consistency of approach will be high priority to manage the interfaces between each contractor and scheme as the programme of works progresses.

Ref	Recommendation	Critical /Essential /Recommended	WCC Response
5	The Project Team should complete the updates to the Project Risk Register in the light of the most recent review of residual risks, ensuring this continues to be reviewed and updated on a regular basis as a tool for identifying and managing risks.	Essential (within 1 month)	The Project Risk Register will be updated following the review of residual risks and updated QRA. The Project Risk Register a live document and will continually be reviewed and updated throughout each stage of the project and reported to project board monthly. As the programme of works progresses into the construction phase, the construction management team will continue to identify, review and assess risks in collaboration with the works contractors.
6	The Project Team should consider enhancing the benefits management plan by identifying owners for each aspect of the monitoring and evaluation measures identified.	Essential (within 3 months)	<p>The Benefits Realisation Plan is owned by Worcestershire County Council and will form the basis of the post completion project monitoring 1 and 5 years after opening.</p> <p>The benefits themselves primarily sit with Worcestershire County Council officers and a review of responsibilities around these will take place to ensure there is accountability for their delivery.</p>

Project Board members receive regular Highlight Reports from the Project Manager e.g. to aid them in the decisions made at gateway stages. The scheme is also subjected to continuous peer review by the Directorate of Economy and Infrastructure Delivery Programme Board, which includes officers from a range of disciplines including business, user and technical officers.

Gateway Review 4 (Readiness for service) and Gateway Review 5 (Operations Review and Benefits Realisation) will be scheduled and carried out by WCC once funding is secured. More details are included in the monitoring and evaluation and benefits realisation plan summarised in section 8.15 and detailed in Appendix M. 6.

8.18 Contingency Plan

Contingency allowances have been made as part of the risk management process outlined in section 8.14. Additionally, the following contingency measures are in place:

- **Suppliers** (including contractors, consultants and delivery partners) – WCC has robust procurement strategy in place which encompasses business continuity requirements within the selection process. As part of the procurement process, the capability, performance and financial status suppliers are checked to reduce exposure to risk of service failure.

Governance and reporting frameworks are in place to provide early warnings of a supplier's inability to continue to undertake its duties. In the event of supplier failure, duties will be redistributed within the existing project team and wider supply chain. WCC has a number of live contracts with suppliers which can be utilised quickly should the need arise, for example through the IETC and Highways Maintenance Service Contract (HMSC).
- **Programme** - As the programme consists of a number of schemes, rather than a single fixed project, there is flexibility within the construction programme with opportunity to change the delivery approach if such unforeseen circumstances arise. This could include pausing specific schemes and changing the order in which schemes are constructed or who they are delivered by (change in supplier).
- **People** – team structures have been identified both pre and post construction. Each supplier is responsible for managing resource resilience with individual contingency plan's in the event that persons leave the project team.

8.19 Conclusion

The Project Management Dimension demonstrates that WCC has the necessary resources and proven expertise to deliver Phase 3 schemes in accordance with the programme and budget included in the FBC submission. Indeed, by carrying forward the governance structure already in place to deliver Phases 1 and 2 (early delivery schemes), this bid benefits from an established and clear process for assurance and approvals. Furthermore, the project has a clear and achievable programme that aligns well with the overall timeframe of the MRN process. In addition, the project team demonstrates a good understanding of likely risks, reflecting the fact that Phase 3 schemes are at a good stage development. All aspects of the FBC including the Management Dimension and its appendices have been updated since the OBC submission reflecting:

- The changes to the schemes phasing and progression of designs of individual Phase 3 elements.
- Updating governance structure that will be used during the delivery of Phase 3 schemes.
- Final consenting and re confirmation of PD rights.
- Monitoring and Evaluation plan that addresses DfT comments received in February 2022.

- Updated CMP addressing Phase 3 schemes that will be built by the main works contractor (Schemes A to F and 6).
- Final stakeholder engagement activities, QRA and risks allocation between the contractors and WCC.
- The identification of the preferred contractors of the main works contract, IETC and public transport scheme, award pending the final DfT approval of the FBC.
- The costs and programmes received from the preferred contractors and agreed by WCC.
- Bromsgrove District Council has agreed to dedicate to WCC the land required for Schemes 3 and 6. Land required for Schemes B and C is expected to be secured by agreement with the relevant landowners, however, WCC has proceeded to make “The Worcestershire County Council A38 Bromsgrove Route Enhancement Programme Compulsory Purchase Order 2023”. The Order was sealed on 2nd March 2023. In accordance with statutory requirements, Notice of the making of the Order was published in a local newspaper (The Bromsgrove Standard) on 3rd March and 10th March 2023.