itp by Haskoning

REPORT

Darley Abbey Mills Bridge Replacement – Strategic Outline Business Case

Client:	Derby City Council
Reference:	PC6285-RHD-XX-XX-RP-X-0001
Status:	Final/0001
Date:	9 December 2025

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Document title:	Darley Abbey Mills Bridge Replacement – Strategic Outline Business Case
Subtitle:	DAMB – SOBC
Reference:	PC6285-RHD-XX-XX-RP-X-0001
Your reference	N/A
Status:	Final/0001
Date:	9 December 2025
Project name:	Darley Abbey Mills Bridge
Project number:	PC6285
Author(s):	JP, NT, MJ, MAA
Drafted by:	JP, NT, MJ
Checked by:	MAA
Date:	9 December 2025
Approved by:	MAA
Date:	9 December 2025

Classification
Published

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1 Project Proforma

PROJECT DETAIL				
Project Name:	Darley Abbey Mills Bridge Replacement			
Delivery Team (if EMCCA internal):	N/A			
Organisation (if EMCCA external):	Derby City Council			
GOVERNANCE				
If external to EMCCA, when was this project approved by your internal governance?				
VERSION CONTROL				
Version:	**2-0**	**Date:**	**9/12/2025**	
SOC Prepared by:	**ITP / Haskoning (on behalf of Derby City Council)**			

STAKEHOLDER INVOLVEMENT

Provide the names and comments of the following stakeholders who have been sighted on this business case prior to submission, note this is a mandatory requirement. Contact with some stakeholders is mandatory in all cases – these are distinguishable as the 'contacted' box has a tick inserted.

	Contacted	Name	Input	Date
Senior Responsible Owner (SRO):			Choose an item.	
Programme SRO (if applicable):			Choose an item.	
EMCCA Executive Director:			Choose an item.	
Finance Lead:			Choose an item.	
Programme finance (Investment Prog):			Choose an item.	
Legal Representative:			Choose an item.	
Procurement Lead:			Choose an item.	
HR:			Choose an item.	
TCR Team:			Choose an item.	
Cycling and Walking Team:			Choose an item.	
Network Management Forum:			Choose an item.	
Inclusive Growth Team:			Choose an item.	

2 Executive Summary

The Strategic Outline Business Case (SOBC) establishes the potential scope of the transport proposal. This sets out the rationale for intervention (the case for change) and confirms how the investment will further the organisation's priorities and wider government ambitions (the strategic fit) to determine the 'preferred way forward'.

Strategic Dimension

Project Description and Why is an Intervention Necessary

Darley Abbey Mills is a part of the Derwent Valley Mills UNESCO World Heritage Site located approximately 1.5 miles from Derby City Centre.

Immediate structural risks to the bridge connecting the Darley Abbey Mills regeneration area to Darley Abbey village were identified during a routine inspection in 2022. The bridge is not owned by the council.

For safety reasons, access to the bridge was closed in May 2022. In October of the same year, the Council stepped in to provide a medium-term solution, known as 'Walter's Walkway', to provide access for pedestrians and wheeled users.

While the medium-term structure provides access, there are several limitations which warrant a more permanent solution including:

- Significant safety risks associated with the original structure, as it remains beneath the current replacement.
- There are currently no highway rights across the existing bridge or through the Mills complex. These rights need to be secured.
- The current arrangement has a significant negative impact on the heritage value of the UNESCO site.
- The medium-term structure negatively impacts the attractiveness of the surrounding area.
- Limited access to popular active travel routes – the bridge provides a link to national cycle network route 54, and Darley Park area.
- While the medium-term solution is accessible to wheeled users, a permanent replacement would better accommodate active travel modes.
- The medium-term solution represents an on-going revenue pressure for the Council.
- Removal of the bridge would result in a significant impact on the accessibility of the Darley Abbey Mills heritage site, due to severance from Darley Abbey village.

Opportunities and Objectives

This scheme provides an opportunity to:

- Put in place a cost-effective long-term solution for the river crossing;
- Secure an active travel route to accessible design standards;
- Help to mitigate flood risks and impacts at the Mills site;
- Provide emergency access from the Mills and Haslams Lane area when Haslams Lane is affected during flooding events and to provide emergency access across the bridge for any emergencies requiring large vehicle access; and
- Provide a crossing that is harmonious with the historical character of the area.

A set of project objectives reflect the challenges and opportunities of the local areas as well as the strategic priorities of relevant organisations. These have been shaped by key stakeholders to ensure they take into consideration important strategic issues.

- **Active travel**: Enhance safety and connectivity for cycling and walking, supporting active and sustainable trips, linking with existing local networks and wider regional routes.
- **Economy**: Maintain access to the regeneration area of Darley Abbey Mills for local residents and businesses.
- **Resilience**: Maintain resilience against extreme weather and emergency conditions.
- **Heritage**: Enhance the sense of place, supporting the heritage and environmental offer of the local area.
- **Safety**: Provide a safe crossing for users.

Options Considered

Six options to provide a solution for the river crossing were considered with the respective merits of each solution addressed through a multi criteria analysis. Options assessed were:

1. Removal of crossing
2. Continuation of medium-term structure
3. Restoring bridge structure
4. Building a new structure – active modes only
5. Building a new structure – active mode + vehicle access in emergency only
6. Building a new structure – active mode + all vehicle access

Preferred Options

Two options scored positively against the key success criteria outlined in the multi-criteria analysis. These 'top performing' options were taken forward for further assessment. This process identified Option 4, an active travel only replacement bridge and Option 5, a replacement bridge for active travel users with provision for emergency vehicle access, as providing the most advantageous Value for Money.

Economic Dimension

The DfT's Active Mode Appraisal Toolkit (AMAT) was used to estimate the benefits and impacts of the potential new bridge options. The detailed analysis is set out in the Options Assessment Report (OAR), which is a separate document to the SOBC.

The results of the economic appraisals are summarised in *Table 2-1* below. The table shows the various benefits versus costs of each of the shortlisted options, culminating in the standard TAG performance indicators including the Present Value of Benefits (PVB), the Present Value of Costs (PVC), the Net Present Value (NPV) and the Benefits-to-Cost Ratio (BCR). A BCR of greater than 1:1 indicates a positive return.

Table 2-1: Economic Appraisals Results for all Shortlisted Options (Core Scenario)

Option	PVC	PVB	BCR	NPV
Option 4 – active travel only	**£17,042**	**£35,039**	**2.06**	**£17,997**
Option 5 – active travel with emergency access	**£17,093**	**£35,110**	**2.05**	**£18,017**

The two options above also scored positively against the key success criteria outlined in the multi-criteria analysis. Furthermore, from the engineering analysis carried out independently of the SOBC, the best performing design option was identified as Option 5. This option allows for pedestrian/cyclists and emergency vehicle access only and is considered to provide the best balance of engineering feasibility, value-for-money and connectivity. In addition, it has the potential to maintain the aesthetic value in keeping with the surrounding Grade I and II heritage environment and usage requirements. This option also has reduced complexity for design and construction and does not require a submerged section of the bridge which would increase future maintenance and impact on river flows. Finally, the non-monetised

benefits of contributing to the Mills regeneration area, as well as the non-use value of having access for emergency vehicles in case of flooding or fires, given access restrictions for large vehicles on the Mills site access point to the East, make option 5 the most attractive for selection as the preferred option.

Commercial Dimension

The Council has demonstrated strong capability in delivering highways schemes, including delivering a £61 million package of highway and public realm improvements through the Government's Transforming Cities Fund.

The next step for delivery is to establish an appropriate procurement route and engage with a contractor. This early contractor involvement for the bridge engineering works is key due to the challenges and risks involved with this work. The scope for this is outlined in the Design Options Report in Appendix A3.

This is likely to involve the use of frameworks as a route to market, either through Midlands Highways Alliance Plus (MHA+) Medium Schemes Framework, SCAPE or ESPO. The use of these frameworks provides confidence in the market, as appropriate and capable contractors who meet the Authority's requirements can be accessed through these frameworks.

Financial Dimension

Development funding spent to date and that expected to develop the project to the next stage is set out in the table below. The council will continue to monitor the potential for match and/or private sector funding to support delivery. The capital funding ask for procurement and delivery of the replacement bridge is requested from EMCCA as part of the Transforming City Regions (TCR) funding package.

Table 2-2: Project Financial Summary

Funding Elements	Spent Funding	New Funding
Costs to date (SOBC and design development)	£800,000	–
Further Appraisals (OBC, FBC, HIA, EIA Costs) (including Inflation Uplift)		£550,000
Preliminary Design & Planning (including Inflation Uplift)		£1,273,000
Detailed Design (including Inflation Uplift)		£640,000
Construction & Handover Design Costs (including Inflation Uplift)		£915,000
Expected Capital Cost		£10,654,000
Sub-Total Cost		£14,032,000
Optimism Bias (applied at 55%)		£7,718,000
Total Expected Costs	**£800,000**	**£21,750,000**

Management Dimension

DAMB project is part of a wider programme of 29 projects with established programme governance and procedures. This will be governed by Derby City Council as part of the Mobility Programme and will report appropriately to EMCCA.

The project plan sets out a realistic and deliverable programme of activities that are scheduled to ensure delivery of a new bridge is completed within the funding timeline, with delivery 2027/28. Previous staff and consultant experience in delivering the medium-term prefabricated bridge brings local understanding of potential risks and challenges for delivery, mitigating some impacts and uncertainties compared to other projects at an early stage.

A communications plan is being developed alongside project progression to ensure involvement from key stakeholders at relevant stages of the project, as well as keeping local communities and organisations informed and engaged.

Conclusion and Next Steps

The Strategic Outline Business Case has established that a permanent replacement bridge at Darley Abbey Mills is a viable project that will meet the strategic objectives of Derby City Council and East Midlands County Combined Authority. The Council is well placed to deliver a major infrastructure project in partnership with a suitable contractor and has the necessary governance arrangements in place to manage delivery.

The SOBC has identified two viable options that will deliver value for money. Both options provide a link between the Mills and Darley Abbey Village for active travel users, however, option 5 also accommodates emergency access to enable access and egress during flooding events. As this is an important requirement the Council will take this option forward and will now work with key stakeholders and do further assessment for a full business case, progress designs and establish project costs.

3 Strategic Dimension

3.1 Rationale for Intervention

Darley Abbey Mills is located approximately 2.5km from Derby City Centre. It is a collection of historic mill buildings dating back to the 1700s[1]. The site gained international recognition as birthplace of the factory system and modern industrial settlements. The Mills have undergone significant regeneration and now houses over 50 vibrant and varied businesses including bars, restaurants and a wedding venue.

A bridge has historically connected the Darley Abbey Mills development to Darley Abbey Village since the 1800s. This bridge previously carried motorists and was under private ownership, while a £1 charge was levied for passing through the Mills Yard on the East side of the bridge.

Immediate structural risks were identified during a routine inspection in 2022, which forced the closure of the bridge until a medium-term solution was put in place October of the same year to provide active travel access. Details of this medium-term structure are outlined in section 2.1.3 of the Options Appraisal Report (OAR) appended to this business case (Appendix A1).

The bridge, having remained ownerless for some years, has defaulted to the property of Crown Estates, however, it is unlikely any other organization will assume responsibility for the structure. The Council took action to reinstate the important link, installing a prefabricated bridge known as Walter's Walkway in September 2022. Walter's Walkway will provide a solution for approximately 5 years, until 2028.

While the medium-term solution delivers connectivity it compromises the visual and heritage value of the surrounding area. The ramped approaches to the medium term crossing are functional but are restricted in width affecting accessibility for cyclists and other wheeled users and the ramps take up space on both sides of the river, affecting adjacent residential and business properties. This also limits its effectiveness as a popular active travel route (including national cycle network and Darley Park area) around the area.

There also remain significant safety risks associated with the original structure still being present, located beneath the medium-term structure. Furthermore, maintenance and inspections of the solution currently in use represents a revenue pressure for the Council, therefore an intervention to improve the current bridge infrastructure is necessary.

Impact of Not Changing

Without intervention the historic link between Darley Abbey Mills and Darley Abbey village will be severely threatened. The link between the Mills and the Village is part of the Derwent Valley UNESCO World Heritage Site and is part of the historic development of the area. The bridge links the employment and regeneration area of the Mills with the communities in Darley Village, reflecting the historic bridge purpose.

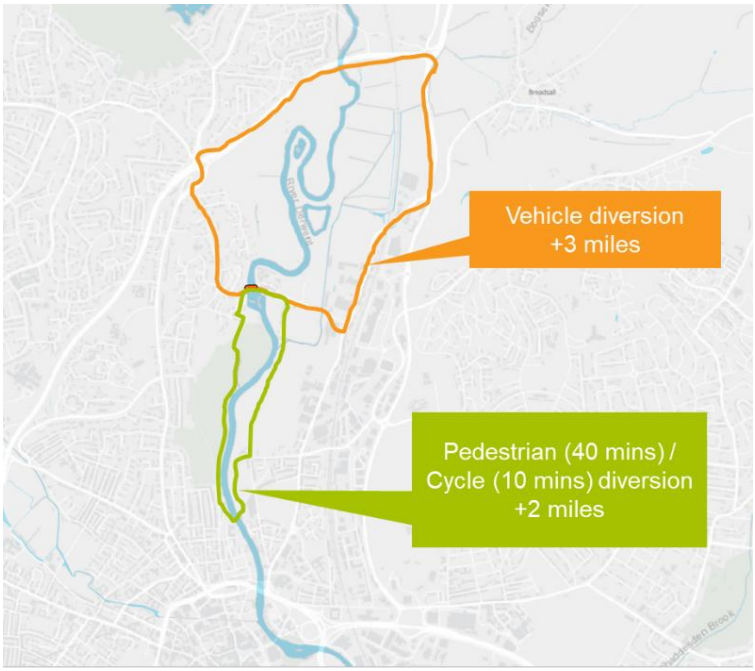
This link now functions as a key part of our local and regional cycle routes and off-road leisure routes around the green spaces in Darley Park. This is a destination for leisure users is a popular traffic-free link along the river into the City. It is key for access to local schools, Walter Evans and the Old Vicarage, with many families using the crossing living on Haslams Lane and Folly Road. Moreover, the bridge connects local sports destinations including the Rugby Football club, Cricket Club and Midland Canoe Club.

[1] https://darleyabbeymills.com/darley-abbey-mills/

This historic location operates as a thriving local centre for businesses and is home to over 50 vibrant and varied businesses including bars, restaurants and a wedding venue. Anecdotal evidence (gathered at part of stakeholder engagement for this study) suggests that businesses lost customers when the bridge was closed in 2022. The limit of direct access across the Derwent at this location influences footfall through the mills and has potential to impact the economic vibrancy of the area.

The bridge structure currently remains beneath the medium-term crossing, and without this solution in place there wouldn't be a river crossing in Darley Abbey Village. This would leave local communities with a diversion using alternative crossing further up and down stream to access the other side of the river. For pedestrians and cyclists, use of Handyside bridge to the south adds a two-mile diversion (an average duration of 40 and 10 minutes respectively) (Figure 3-1). Vehicle traffic could use the A38 route to the north, resulting in a three-mile diversion. Depending on origin / destination of the journey, vehicles could also travel further south towards Derby City and use crossings on the A601 or St Mary's bridge.

Figure 3-1: Diversion Routes



No access point at the mills would mean that the businesses and residential communities to the east of the river, including Folly Road, would rely on access via Haslams Lane. This single point of access could compromise safety, particularly as Haslams Lane is low lying and frequently affected during flooding events.

The temporary structure delivers some connectivity but compromises the visual and heritage value of the surrounding area. The medium-term solution is a functional structure, providing step free access to the bridge crossing, but is very restricted in width, limiting safe, user friendly crossing for wheelchair users, cyclists, or people with pushchairs. The nature of the link is not sufficient for the importance of the connection for leisure routes as well as part of our regional cycle network. The ramps also take up a lot of space on both sides of the river, affecting access to businesses in the Mills. Therefore, it is an unsuitable link to maintain in the longer term, notwithstanding the significant on-going costs to the council of providing the structure.

3.2 Policy Context and Strategic Alignment

The scheme demonstrates strong alignment to national, regional and local agendas. Chapter 2 of the Options Assessment Report (OAR) (Appendix A1) contains a detailed review of policies and background conditions. The following policies and strategies are relevant for this project:

National

- National Planning Policy Framework (UK Government 2024)
- Decarbonising Transport – A Better, Greener Britain (Department for Transport) (2021)
- Gear Change (Department for Transport 2020)

Regional

- Strategic Transport Plan for the Midlands (Midlands Connect, 2022)
- East Midlands Combined County Authority (EMCCA) Policy Goals (2024)
- D2N2 Local Enterprise Partnership: Local Cycling Walking Infrastructure Plan (D2N2 LCWIP 2021)

Local

- Derby Local Transport Plan LTP 3 (Derby City Council 2011)
- Derby Bus Service Improvement Plan (BSIP) (Derby City Council 2021)
- Climate Change Action Plan (Derby City Council 2022-2024)
- Darley Abbey Mills Regeneration Strategy (Derby City Council 2013)
- World Heritage Site Management Plan (Derwent Valley Mills World Heritage Site 2020-2025)

The OAR assessed how the strategic focus of this scheme aligns with local, regional and national policies. Strategies in five key areas are summarised in the table below. This is fully explained in OAR Section 2.1.

Table 3-1: Policy Alignment

Strategic Policy Themes	Bridge Replacement Scheme Alignment
Active Modes	The scheme should focus on providing suitable and attractive walking and cycling link, in alignment with active travel policies. This will also connect NCN route and key local routes around Derwent Valley.
Environment and Climate Resilience	Derby City's ambition to reach net zero carbon dioxide emissions by 2035, as well as the UK target of net zero by 2050 align with the scheme's target of encouraging low carbon transport.
Heritage	The bridge must preserve and enhance the cultural heritage of the Mills site and UNESCO World Heritage area, and its value to local residents, and as a site of international importance.
Economy	EMCCA's emerging strategy shows economic opportunity and community connectivity will likely be a focus. The bridge is an important connection to businesses and employment in the mills from the village and adds to the vibrancy of the local area.
Safety	Safety must be a priority according to the NPPF, with structural integrity, longevity, visibility and lighting of the bridge being key elements that require improvement. This is also important for Derby's LTP3 strategic goal of improved safety, security and health across the transport network.

EMCCA vision and strategic goals are still emerging through the development and forthcoming consultation and engagement on their draft transport strategy. Emerging transport objectives are shown

below in Figure . Alignment of the benefits of the DAMB with the EMCCA goals and objectives is highlighted in Table 3-2.

Figure 3-2: Emerging EMCCA Transport Vision and Goals

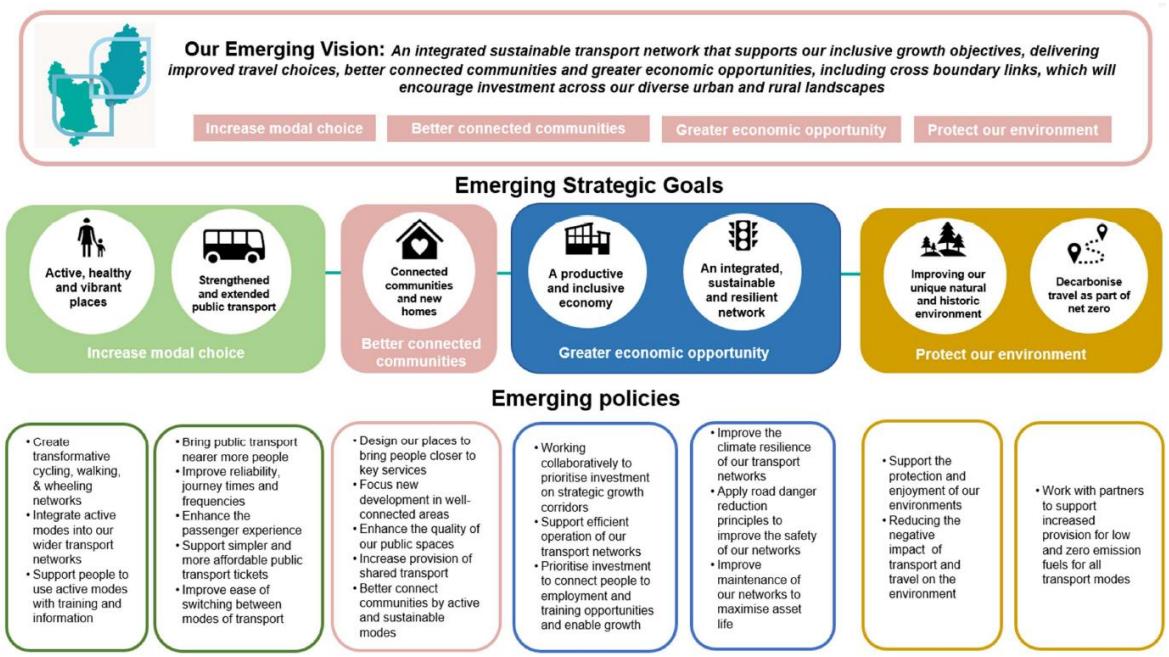


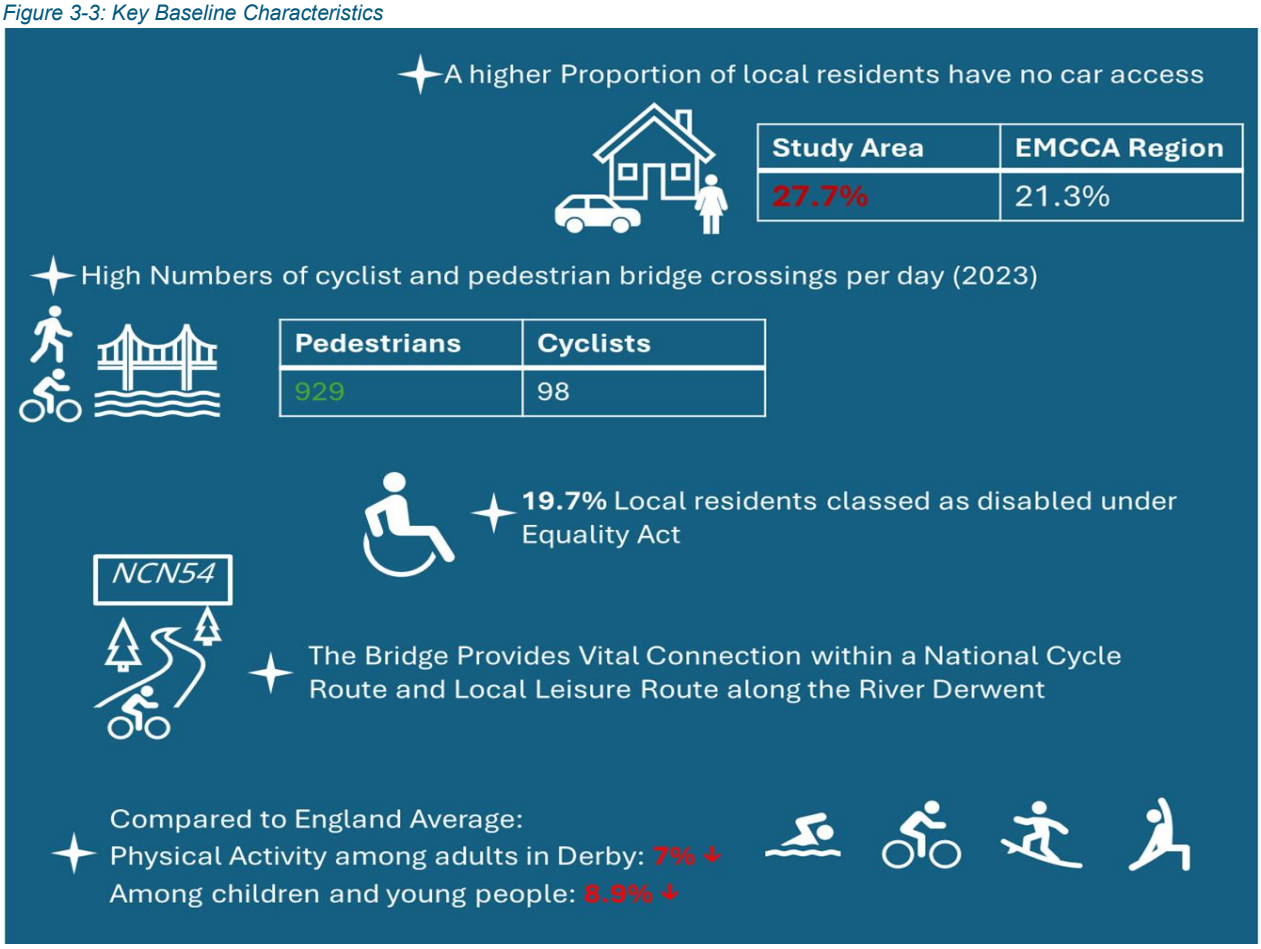
Table 3-2: Project Alignment with EMCCA Strategic Goals

Increase Modal Choice	
Active, healthy and vibrant places	• A new bridge and access will secure an active travel link for commuters and leisure users adjacent to regional and local cycle routes.
Strengthened and extended public transport	• A new bridge will link communities to bus services running on adjacent radial routes.
Better Connected Communities	
Connected communities and new homes	• A new bridge and access supports the local community and would provide emergency access or egress during flooding events.
Greater Economic Opportunity	
A productive and inclusive economy	• A new bridge will support vibrant businesses in the regenerated Mills complex.
An integrated, sustainable and resilient network	• A new and maintained bridge will provide a sustained link between communities and key routes. Opportunities for low carbon construction and maintenance of a new structure will be considered during design.
Protect Our Environment	
Improving our unique natural and historic environment	• The project will improve access to and around the Derwent Valley Mills World Heritage Site and will be sensitive to the heritage and natural environment.
Decarbonise travel as part of net zero	• An active travel link across the river Derwent provides an alternative option to car use.

3.3 Existing Arrangements

The Options Assessment Report (Appendix A1) provides a detailed analysis of baseline conditions within the study area surrounding the Bridge site; Figure 3-3 highlights some key characteristics that indicate the importance of maintaining active travel and disabled access via the bridge between the Darley Abbey Mills site and the village.

Figure 3-3: Key Baseline Characteristics



Car ownership, and disability data are drawn from ONS 2021 census data for Derby. Pedestrian and cyclist counts for the bridge were carried out by Derby City Council in June 2023 and are further detailed in the OAR in Appendix A1.

With a lower than typical level of car ownership and access for the region, providing high quality active travel infrastructure is especially important. With a significant proportion of residents being disabled, a replacement bridge would need to be fully accessible for wheeled users.

Counts taken in June 2023 (and repeated in November 2024) at the bridge site indicate an already high level of use by active travel users, particularly pedestrians, indicating the importance of the crossing for users. As the bridge also forms a part of the national cycle route network and local leisure route along the Derwent River through Derby City, to remove the bridge would have a significant detrimental impact on the quality, convenience and attractiveness of these active travel routes important for nature connection and healthy and sustainable travel behaviour. This is particularly important as Derby lags the England average for physical activity by a significant margin.

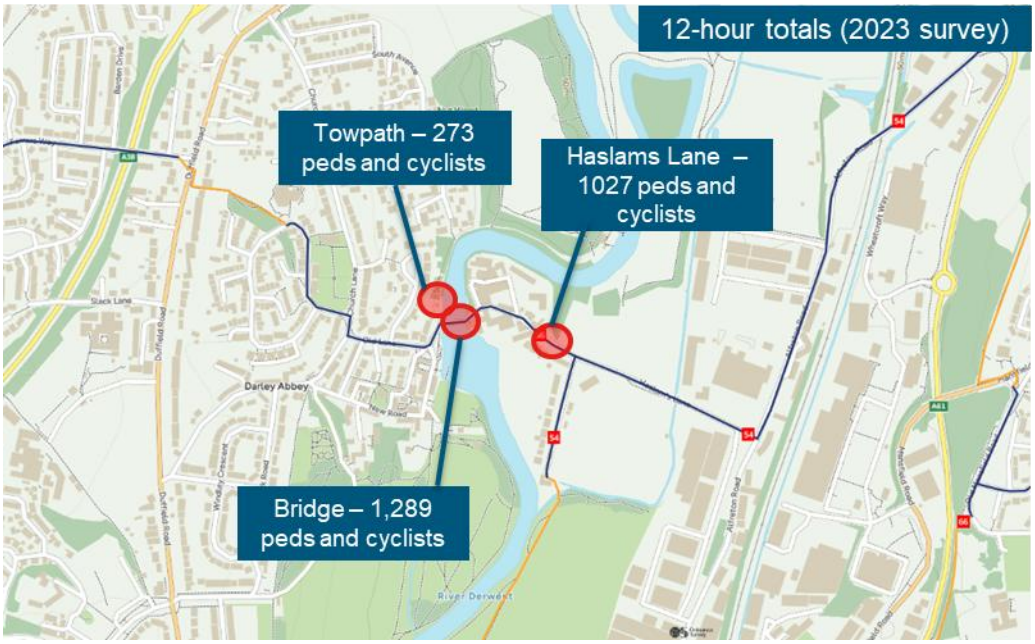
Demographics
With the local area having a higher prevalence of non-car-owning households and lower commuting driver mode share, there is a need to maintain and enhance car free connectivity.

When compared to the average for England in 2022/23, Derby saw 7 percentage points fewer physically active adults, as well as 6 percentage points more inactive adults. This lower percentage of active individuals extends to children and young people in Derby, with 8.9% being less physically active than the average for England. The study area shows similar figures in relation to distance travelled to work as the wider EMCCA region, with 27.5% working from home and 42.8% travelling under 10km.

Active Travel
The bridge serves as a key active travel link with over 1,150 daily active travel users (2024 surveys). The Darley Abbey Mills bridge itself forms part of nationally recognised cycle routes, with the orbital route 66 running across the river Derwent. It also provides a link to national cycle route (54) and connects to Derby City and to local riverside leisure routes as part of the Deby City network. (Active Travel Map from Cycle Derby)

'All Cycle Sports' data from Strava (accessed July 2024) shows demands following the NCN 54 route to the east of the site, with flows along Alfreton Road reflecting the NCN route in this area when travelling northbound from Haslams Road. This highlights the importance of the route through the mills and across the River Derwent as a key part of local cycle journeys.

Figure 3-4: Active mode users of the bridge, 2023



Source: 2023 survey data

Road Safety
Reported incidents over five years (1/11/2018 – 31/10/2023) show that slight and serious incidents have occurred within the core study area. A number of these, particularly those in the vicinity of the bridge, involve vulnerable road users (pedestrians and cyclists) using the route.

Environment

The Mills and land around them lie in a flood risk area. Locations in flood zone 3 have a high probability of flooding. In any year land has a 1% or more chance of flooding from rivers. The recent 'Our City Our River' scheme to delivered flood defences / embankments within the study area.

Derby City Council has two declared Air Quality Management Areas (AQMAs) because of exceedances in the annual mean nitrogen dioxide (NO_2) objective, predominantly due to road traffic emissions.

Heritage

The Derwent Valley Mills World Heritage Site (DVMWHS) stretches 15 miles (24 km) along the river valley from Matlock Bath to Derby. The Mills and surrounding landscape were inscribed as a World Heritage Site by UNESCO in 2001[2].

The Site Management Plan aims to ensure that the preservation, enhancement and promotion of the site is sensitively and appropriately managed. Most notable under the Transport and Accessibility aim is objective 5.6 – to Encourage the development of alternative transport options for exploring the DVMWHS. Actions include one to *"Promote the existing cycle routes in the DVMWHS and encourage the development of new routes that do not impact on its Outstanding Universal Value or adversely impact on other existing user routes."*

In light of its international historic importance, a heritage statement of significance was commissioned and will help to shape the proposed solution as plans for the bridge progress. The statement was completed in October 2025 and provides a comprehensive heritage and geoarchaeological assessment of Darley Abbey Bridge and its context within the Derwent Valley Mills World Heritage Site. The study draws on site investigations, archival research, and previous reports.

The report states that in terms of the bridge's Outstanding Universal Value, the bridge forms an important role in the site's integrity as a part of the mills' setting, facilitating access since around 1783 and reflecting the historic relationship between the mills and the factory village. While the bridge itself possesses limited architectural and historic interest it is vital for understanding the development of the mill complex and its connectivity to the main road network, markets and village. However, unlike the Mills structures themselves, the bridge lacks authenticity as its original forms, building materials, and structural techniques are not intact and not easy to discern.

Summary

A summary of the existing context of the bridge and its surroundings has been collated in the form of a strengths, weaknesses, opportunities and threats are shown in Table 3-33. This brings together elements set out above and has been developed with a wider stakeholder group to include a range of views and specialisms. These included representatives from a range of council teams from Derby City Council as well as local councillors and organisations representing heritage, environment, utilities and emergency services.

[2] Derwent Valley Mills Management Plan 2020–2025 (https://managementplan.derwentvalleymills.org/)

Table 3-3: SWOT of Current Situation

Strengths	• An important link historically and function as a local leisure route (surveys show over 1,000 pedestrian users per day, 2024) • Key part of the regional and local cycle network, with high existing usage (a 2023 survey showed over 100 cyclists per day) • Part of the only UNESCO WHS in the East Midlands • Darley Abbey Mills is a regeneration area (as set out in Policy AC10 of the Local Plan) • Historic link between the mills and the millworkers community that serviced them • Bridge and access to the river in this location enables easy removal of blockages due to stagnations • Recent 'Our City Our River' scheme to deliver flood defences / embankments within the study area. • Provides access for water rescue services to cross the river quickly and safely • Bridge enables security of electric supplies / access to two electric substations to the Darley Mills and surrounding area and provides resilience to access should Haslams Lane flood • Vibrant area with a range of land uses – including businesses, residential and leisure uses in and around the study area
Weaknesses	• The old bridge was not suitable for a modern mix of traffic. There were often issues where traffic had to reverse off the bridge while pedestrians are on the bridge which is not ideal • Limited access through Darley Mills due to lack of available space and narrow sections of road • Location in a flood risk area • The bridge piers and the proximity to the weir and fish pass lead to the accumulation of considerable amounts of river borne debris, reducing conveyance. This increases worries to residents. • Currently no through access for vehicles – negatively impacts those who are unable to walk/cycle • Bridge was unsuitable for any Fire Service vehicle in its original form due to weight constraints (fire appliances are currently around 14000kg) • High rise vehicles cannot access the site except across the bridge. • UNESCO has indicated that they would be concerned if there was no link between the mills and community - might threaten inscription
Opportunities	• Potential to make the bridge (and connecting route through the mills) fully accessible for disabled people / adaptive bikes etc. • Improve road safety for vulnerable users, where active modes are prioritised • Develop a more cost-effective long-term solution for the council, removing reliance on a medium-term structure • Potentially reduce flood risk and provide additional resilience to access for local communities • To enhance the character of the mills and World Heritage Site • Chance for a more sympathetic design to complement the historic mills
Threats	• Potential for conflicts between different road users on the bridge and surrounding network • Potential for increased flood risk if design is not appropriate and doesn't tie in appropriately with current defences • Financial costs of constraints in the area • Availability of funding • Challenging access, land ownership and highway rights • Bridge carries gas and electricity connections – to be considered in reconstruction plans • Any bollards/barriers need to be wide enough apart for adapted cycles and mobility scooters • UNESCO are encouraging reinstatement of the bridge in the current form • Having no bridge could contribute to threatening our World Heritage status

3.4 Objectives

Table 3-4 specifies the spending objectives for this project, focusing on the target outcomes, how these will be achieved and measured, and how they align with key relevant policies.

Figure 7 overleaf links these objectives in the context of the key drivers of the project, outputs and outcomes in the form of a project logic map.

Table 3-4: Indicative SMART Targets

#	Objective	Measure	Specific Actions to achieve objective	Alignment to Policy Aims
1	Enhance cycling and walking safety and connectivity, supporting active and sustainable trips, linking with existing local networks and wider regional routes.	Counts of active travel users crossing the bridge. DfT tools to evaluate safety, active mode impacts	Active travel bridge to be installed with inclusive access for mobility impaired users, as well as other cyclists and pedestrians.	Active Travel Improvement relates to D2N2 LCWIP, Derby City LTP3 and national goals.
2	Assist local residents and businesses to maintain access to the regeneration area of Darley Abbey Mills	Counts of active travel users across the bridge. Survey data on employee and customer accessibility	Active travel bridge to be installed with inclusive access	EMCCA goals to spread economic growth and prosperity equitably across the region.
3	Maintain resilience against extreme weather and emergency conditions.	Records of flooding events and bridge closures	Deployment of new bridge built to engineering specifications	LTP3, delivering a reliable safe and secure network. NPPF climate change resilience
4	Enhance the sense of place, supporting the heritage and environmental offer of the local area.	Survey responses and stakeholder feedback. DfT tools to evaluate safety, public realm impacts	Deployment of new bridge with design features that sit well within the historical environment.	NPPF, Regeneration strategy, DVMWHS Management Plan
5	Provide a safe crossing for users.	Collision data. Survey responses on feeling of safety for active travel users and structural assessments of bridge condition	Deployment of new bridge with improved safety and accessibility design features	Derby CC LTP3, delivering a reliable safe and secure network. NPPF

Figure 3-5: Project Logic Map

Case for Change	Objectives	Inputs	Outputs	Outcomes	Indicators
• Poor suitability for a modern mix of traffic on the original bridge structure resulted in conflicts with active travel users • Limited access through Darley Mills due to lack of available space and narrow sections of road • Location in a flood risk area • Bridge collects substantial volumes of river debris, reducing conveyance of river water and increasing worries to residents • Currently access for vehicles is only possible via east entrance, with the bridge unsuitable for Fire Service vehicles in its current and original form • There has historically been a link between the village and mills site, leading to negative heritage impact if the bridge is removed	**Strategic Objectives** • Enhance cycling and walking safety and connectivity, supporting active and sustainable trips, linking with existing local networks and wider regional routes • Assist local residents and businesses to maintain access to the regeneration area of Darley Abbey Mills • Maintain resilience against extreme weather and emergency conditions • Enhance the sense of place, supporting the heritage and environmental offer of the local area • Provide a safe crossing for users	**Funding** • EMCCA Transforming City Regions Funding • DCC LTP funding (work completed to date) **Stakeholders** • Derby City Council • East Midlands Counties Combined Authority • Transport for East Midlands • Local ward members • Derwent Valley Mills World Heritage Site Partnership • The Environment Agency • Heritage England • National Grid • Derby Fire and Rescue • Derbyshire Police • Ambulance Service • Derby Rugby/Football Club • Paddle UK and Midland • Canoe Club • Utility Companies • Local Properties and Businesses • Advisors/Consultants supporting Transport Planning, Bridge Structures and Architects	A replacement bridge is installed Removal of original bridge and temporary bridge structure Heightened deck level, with new ramps Improved inclusive crossing facility for pedestrians and cyclists, with the potential for emergency vehicle access	Safer, easier and more inclusive access for all active travel users across the bridge Structural safety concerns alleviated Supports LTN 1/20 standard in active travel design Design in-keeping with character of UNESCO World Heritage Site Better active travel connections to surrounding residential, employment areas and blue and green spaces Reduced flooding risk	Number of active travel users crossing the bridge DfT measures (such as AMAT) to measure safety, active mode and public realm impacts Impact and disruption from extreme weather events or emergencies Journey time impacts for active modes Evidence from local businesses for economic impact. Occupancy rates or employee number in Mill development Heritage assessment Measure of collisions or KSI incidents at the bridge site

3.5 Inclusive Growth and Equalities

Strategic Priorities

This project will prioritise accessibility through improved connectivity and mobility, as well as health outcomes due to improved active travel infrastructure provision, better connecting the national cycle route, and local leisure walk and cycling routes along the river. The beneficiaries will be those local residents, customers and employees at DAM businesses, as well as improving access for visitors to the historic location and commuters accessing the wider area with an emphasis on improving active travel particularly for the disabled.

Health and Equity Impact Assessment

A three-stage assessment has been undertaken, comprising: prepare, assess, refine and apply and review stages. This is summarised below.

Stage 1 – Health and Equity Impacts	
Describe the main aims, objectives, activities, and outcomes of your work. Who is expected to benefit? How do you expect your work to reduce health and wider inequalities?	The project is required because at present there is: • An inadequate and unsustainable river crossing provision within the Mills site. Without an intervention the area will: • Suffer from serious safety concerns from the older bridge design and temporary structure, including flooding risk. • Negatively impact businesses in the local area and the heritage value of the area, sited within the UNESCO WHS. • Cause severance for pedestrians and cyclists, with a currently low standard pedestrian and cycling provision across the river. The scheme has the following objectives: • Maintain access on a long-term basis across the River Derwent for active travel users and emergency vehicles. • Increase the opportunities to travel using active modes. • Enhance road safety for all users. • Remove the detrimental visual impact of the bridge within the heritage area. Transport users are the principal **beneficiaries** of the project through safer and more reliable journeys, particularly for active travel users and for those employees and customers accessing the businesses in the mills and local area This will result in improved access opportunities for those who live, work and travel in and through the study area. Aside from the health benefits of walking and cycling there are also benefits associated with shift towards these modes from car use resulting in air quality improvements. Measures to improve and maintain good walking, wheeling and cycling networks will provide better access to employment, education and leisure opportunities, particularly for those with no access to a car.
Does your work affect the public or employees directly or indirectly? In what ways?	As a transport infrastructure project this benefits the public through: • Safer and more reliable journeys, particularly for active travel users

	• Increased accessibility for those who live, work and travel in and through the study area, particularly at the Mills site. • Pedestrian and cycling journey quality • Reduced casualties • Reduced emissions • Reduced car dependency
Stage 2 – Data and Evidence	
What data, indicators and evidence are available on the equity, diversity and health equity issues in the key target groups?	In preparing the Options Assessment Report (OAR) for the study, we considered local, regional and national demographics. Key findings are: • The level of household deprivation in at least one dimension is 51.3%, slightly higher, but very close to the EMCCA average. • The disability rates are significant at 19.7%, and close to the average for the EMCCA region. • The number of households with no car/van availability is 27.7%, 6.4% higher than the regional average.
Have you consulted interested parties?	An on-going programme of stakeholder engagement and public consultation is planned and is described in further detail in the management case in section 7.8. As the project progresses the communication / engagement plan will continue to develop and manage identified groups and their influence / required inputs into the project. Activities planned are likely to include: • Affected properties within the study area. • Statutory consultation on any Traffic Regulation Orders – including emergency services and affected properties. • Public exhibition, including with local Mills businesses and Darley Abbey residents • Meetings with local interest groups.
Is further research needed? If yes, how will it be undertaken and by when?	An initial data collection exercise was undertaken to inform the options development work, including active mode and traffic counts and parking surveys. Moreover, much of the necessary data and information was gathered previously for the design and installation of the medium term structure.
Which measures does, or could the programme or policy include to help promote equality of opportunity for and or foster good relations between people who share a protected characteristic?	As a transport infrastructure scheme the proposals are considered to be neutral against this metric. Moreover, an Equalities Impact Assessment (EQIA) will be undertaken as an element of the Outline and Full Business Case for this scheme.

Stage 3 – Assess/Examine the Evidence and Intelligence			
	Distribution of Inequalities	**Causes of Inequalities**	**Positive/Negative/Neutral Impact**
Age	Older people and younger age groups	Possible isolation for older people and poor access to education, training and employment opportunities for young people	Slight positive through better, more reliable transport options to access to more opportunities
Socio Economic status or geographical deprivation	Household deprivation is similar to levels across the East Midlands at over 50%.	Access to education, training and employment	Neutral
Sex	Women are more likely to face transport inequalities	Fear of crime, for example in the hours of darkness or harassment on public transport	Neutral
Disability	People with visible and hidden disability	Can't use the transport network as easily as other people	Slight positive, scheme will be designed in line with best practice such as guidance on the use of tactile paving surfaces and links through the mills
Race	N/A	N/A	Neutral
Religion/belief	N/A	N/A	Neutral
Sexual Orientation	N/A	N/A	Neutral
Marriage and civil partnership	N/A	N/A	Neutral
Gender reassignment	N/A	N/A	Neutral
Inclusion health and vulnerable groups (for example people experiencing homelessness, prison leavers, young people leaving care)	People experiencing homelessness/ insecure housing, prison leavers, care leavers	Access to education, training and employment	Neutral
If adverse/negative impact is noted to any of the listed equality target groups, can it be justified i.e. on the grounds of promoting equality of opportunity for any other group/s?	N/A		

3.6 Main Benefits

The main benefits associated with the achievements of the project's spending objectives by beneficiary, distinguishing benefits from outcomes are outlined in Table 3-5 below.

Table 3-5: Project Benefit Identification

#	Benefit	Benefit Type	Beneficiary
1.	Safer and more reliable journeys, particularly for active travel users	Wider benefits to UK society (monetisable)	Those who travel in and through the study area by active modes
2.	Increased pedestrian and cycling mode share	Wider benefits to UK society (monetisable from mode shift, health and journey quality)	Those who live, work and travel in and through the study area
3.	Reduced casualties	Wider benefits to UK society (monetisable)	Those who travel across the active travel bridge
4.	Reduced emissions	Wider benefits to UK society (monetisable)	Those who live and work in the area. Those using cycle and leisure routes affected by the provision of the new bridge.
5.	Reduced car dependency	Wider benefits to UK society (monetisable)	Those who live, work and travel in and through the study area
6.	Better access to employment opportunities at the Mills site	Wider benefits to UK society (monetisable, but outside of core transport appraisal)	Those who live and work in the study area
7.	Better access for customers at the Mills businesses	Wider benefits to UK society (monetisable)	Consumers and Mills businesses.
8.	More resilient in the face of extreme weather events and emergencies	Wider benefits to UK society (monetisable)	Local residents, employees and business owners and other site users.

3.7 Key Risks

Table 3-6 displays twelve key risks for the two preferred options for this scheme, as outlined in the Arcadis Design Options Assessment. Each risk is scored for probability and impact from 1 to 5 to produce a risk score between 1 and 25 (Impact x Probability). Those risks with a score above ten are listed below. A full risk register is provided in Appendix A2. This reflects the risks at a point in time, and it is noted these are constantly evolving. Risks will continue to be monitored for the project and updated registered presented at key milestones.

Table 3-6: Key Project Risks

ID	Risk	Impact (1-5)	Probability (1-5)	I x P	RAG Rating	Risk Owner	Mitigation
1	Limited access site e.g. crane or access from river, site access for plant and deliveries. Including impact on neighbouring properties.	4	5	20	**High**	DERBY CITY COUNCIL	Early contractor involvement throughout design process.
2	Not securing funding.	4	5	20	**High**	DERBY CITY COUNCIL	Effective communication and development of a robust business case to highlight the importance of this route in providing a key connection to local communities, employment, blue and green spaces and heritage sites.
3	Archaeological works recommended to be undertaken in areas of proposed alignment.	4	3	12	**Medium**	DERBY CITY COUNCIL	Archaeological survey is recommended in areas of proposed new alignments early in the project development.
4	Providing options which improve active modes provision (e.g. active user only bridge option) may require compromises in respect of journey time / access to the site for other road users and emergency vehicles.	4	4	16	**Medium**	Derby City Council	Design and model development to balance these compromises to maximise the opportunities for all users. Derby City Council to consult at early stage with technical stakeholders to inform and get inputs into the optimal design layout.
5	Environmental impact: Working within an UNESCO site and adjacent to Grade 1& 2 listed buildings Loss of mature trees on approaches Impact on watercourse and surrounding infrastructure including during construction Impact of the structure on the surrounding heritage area Impact of structure on surrounding protected wildlife.	3	4	12	**Medium**	Derby City Council	Reinstatement of trees at approaches. Heritage structures to be preserved either on or off site. Single span limits works in watercourse. Monitor vibrations during construction works. Consultation with Environment Agency at early design stages considering permanent and temporary works.
6	Pollution of watercourse.	4	3	12	**Medium**	Derby City Council	Early contractor involvement required to determine demolition methodology. Early stakeholder engagement to gain required approvals.

7	Flood risk impact on construction programme.	4	3	12	**Medium**	Derby City Council	Early engagement with Environment Agency and early contractor involvement throughout design process.
8	Cost increases as design develops due to inflation on materials, changes in the required design or programme prolongation i.e. fluctuations in Steel price over multi-year construction programmes.	3	4	12	**Medium**	Derby City Council	Risk modelling and optimism bias are used within cost estimates at each stage and these are redefined as design/ cost matures to reflect greater certainty. Early Contractor Involvement during detailed design/ FBC.
9	Not securing Environment Agency Consent for the design.	4	3	12	**Medium**	Derby City Council	Consult with EA and ensure that design solutions for any new crossing limit restrictions to the watercourse e.g by reducing the number of piers and placing the deck above 1 in 100 year flood levels plus allowance for climate change and freeboard.
10	Financial impact on local businesses during construction.	3	4	12	**Medium**	Derby City Council	Consult with local business owners, limit site working hours and ensure access at all times at sensitive times as far as possible.
11	Works affecting private land owners cannot be agreed through negotiation.	4	3	12	**Medium**	Derby City Council	Identify any affected private landowners and commence early consultation.
12	Existing substructure remaining in riverbed - potential to cause clashes with new substructure works.	4	3	12	**Medium**	Derby City Council	Surveys to be conducted to determine the full extent of substructure. Extent of substructure to be removed to be decided at later design stage.

3.8 Constraints and Dependencies

Constraints

These are considered in the risk register (Appendix A2). In addition, the following list provides an overview of important constraints:

- **Flood Risk**: The site also lies within a flood risk area and have been designated as high risk (zone 3). Recent mitigation schemes in the area have helped to reduce this risk, but it still remains as a key consideration and must be accounted for and be compatible with local flood defence plans.
- **Rights**: While the medium-term structure remains a Council asset, the original bridge highway (and the vehicle access through the Mills) is not adopted highway. Having remained ownerless for some years, the bridge ownership has defaulted to the property of Crown Estates, however, it is unlikely any other organization will assume responsibility for the structure.
- **Land for larger structure and/or access for construction:** Depending on the design solution for the bridge, land acquisition for delivery may not be necessary but the physical constraints of the site means that access through third party land may be required during construction.
- **Regulations**: Development of the scheme will need to comply with Traffic Regulations for any speed limit changes, design guidance and standards, planning requirements including potentially Compulsory Purchase Order and public sector procurement practices for constructing highway works.
- **Utilities**: Gas and electrical supply to the Mills site utilises this bridge crossing currently, providing resilience for energy, water and telecoms supply. Changes made to the bridge could impact on this provision.
- **Development**: No major committed schemes are known in the immediate vicinity of the study area that will impact the river crossing in the future.
- **Heritage**: The bridge sits within the DVMWHS area. The curtilage of the bridge site, though not the bridge itself, is listed, therefore the bridge must contribute to the preservation of the character of the site and Derwent Valley heritage area. In addition, Darley Abbey Mills is a regeneration and conservation area, while the area of Darley Abbey to the west is an Archaeological Alert Area. For detailed mapping of sensitivities relating to heritage and environment see OAR Section 2.4.
- **Outline planning**: cannot commence until the Outline Business Case has been approved due to this being a heritage site.

Dependencies

While there may be synergies with local sustainable transport initiatives, the delivery of this scheme is not dependent on other schemes being successfully delivered, nor is it reliant on other developments for funding.

The main dependency of the project is securing development and capital funding. There is insufficient funding to progress the detailed design and develop a full business case. Until further funding is secured this project will only progress to Strategic Outline Business Case.

4 Economic Dimension

The economic dimension presents the options identified to address the challenges and maximise opportunities of the DAMB. It provides an evidence base for the shortlisted and preferred option selection process, proving a value for money estimate from the proposed investment.

4.1 Option Appraisal Summary

The baseline evidence gathering set out in the Option Assessment Report (OAR) (Appendix A1) illustrates the understanding of the project area and definition of scheme objectives used to inform the option identification and sifting process.

This section summarises the process used to select a shortlist of options. More information regarding the process and results is documented in the OAR (Appendix A1).

Option Generation / Long List

A long list of options for the future river crossing has been generated with the project team and stakeholders. These represent multimodal approaches to river crossings and consider 'do nothing' and low-cost alternatives, as comparative options and according to the TAG process. Definitions of these options are outlined below:

1) **Full demolition** of the existing structures (disused bridge crossing and footbridge) including full removal of the existing piers and local reinstatement at the bridge approaches.
2) **Maintain the existing footbridge** arrangement as a medium-term solution with future demolition of the disused bridge to prevent uncontrolled collapse.
3) Remove medium-term structure and demolish disused existing bridge. **Re-construct the existing concrete bridge** deck and substructure on the same horizontal alignment to match the current carriageway and footway width.
4) Full demolition of the existing structures including removal of the existing piers and reconstruction with a single 48m span steel 4m wide (trafficked width) **pedestrian and cyclist footbridge** on a new alignment.
5) Full demolition of the existing structures including removal of the existing piers and reconstruction with a single 48m span steel 4m wide (trafficked width) accommodating **pedestrians, cyclists and emergency vehicles** on a new alignment.
6) Full demolition of the existing structures including removal of the existing piers and reconstruction with a multi-span concrete 8m wide (trafficked width) **highway bridge** comprising a 4m wide combined footway/ cycleway on a new alignment.

Architectural variations for Options 4 and 5 were also investigated by the engineers and designers. From this, two sub-options (known as 2 and 3b) were also further examined. Some of these sub-options include reduced complexity for design and construction and/or do not require a submerged section of the bridge which would increase future maintenance and impact on river flows.

Crossing Location

Previous work was undertaken on locations for a crossing in May 2022. There was some discussion to look at the potential to relocate the crossing to another location. However, during the stakeholder

engagement discussion this was not widely supported. There are also various access infrastructure and environmental impacts which would occur with a new location. As such, this study has focussed on the existing bridge position, in order to avoid these potential impacts as well as facilitate a rapid and efficient construction timeline.

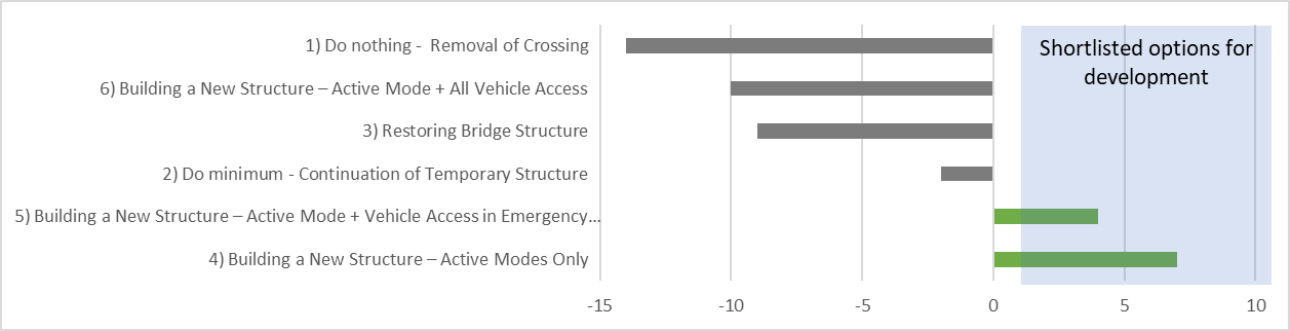
Early Option Testing

A bespoke framework was developed, reflecting standard DfT criteria, local and scheme priorities and was shaped by stakeholders. Options were scored on a five-point scale against each metric, highlighting the differences between options at an early stage. Metrics included Strategic, Acceptability, Deliverability and Affordability considerations.

Resulting scores identified two options for further consideration, these presented a net positive score, highlighting them as options to take forward to further development:

- Option 5 – Building a new structure – Active mode and vehicle access in emergency only; and
- Option 4 – Building a new structure – Active modes only.

Figure 4-1: Options Shortlisted for Further Development



The option assessment framework is a useful way of filtering out poorly suited options but does not provide a detailed quantified appraisal of options. The next stage to the economic case builds a quantified picture of the potential benefits against the costs for the six longlisted options. These include a do-nothing and do-minimum scenario, or business as usual case to estimate the impact of the change.

4.2 Arcadis Developed Costs and Designs

Arcadis produced cost estimates for the six different options longlisted, in addition to this, options 4 and 5 included design variations (Arcadis Option Report, May 2025, 30194918-ARC-SBR-XX-RP-CE-00005). The two designs comprise a perforated U-Beam deck profile formed of weathering steel plate (sub-option 2), and an asymmetric arch formed of square hollow sections also in weathering steel (sub-option 3b). Derby City Council selected option 3b to carry forward in this assessment. For simplicity, only design 3b figures have been included for options 4 and 5. Refer to document 30194918-ARC-SBR-XX-RP-CE-00002 Preliminary Design Options report - by Arcadis and Knights Architects in November 2023 for more detailed design specifications.

With the additional variant designs for each of options 4 and 5 excluded, 6 longlisted options in total were included for quantitative cost-benefit analysis.

4.3 Assumptions and Data

An additional allowance was applied for optimism bias on top of the capital costs to account for systematic tendency for appraisers to be overly optimistic about key parameters. This approach is set out and quantified in the DfT's TAG Unit A1.2 (Scheme Costs). Based on the fact this appraisal is at Stage 1 (SOBC), then TAG recommends a 55% uplift for optimism bias for local authority schemes. As such, this value was applied for the various bridge options. The details of all of the assumptions and how value for money has been calculated are included in the Options Assessment Report (Appendix A1).

4.4 Social Cost-Benefit Analysis of Shortlist

The DfT's Active Mode Appraisal Toolkit (AMAT) was used to estimate the benefits and impacts of the potential new bridge options. This will help to ensure compliance with TAG's criteria for future funding opportunities and also 'future proof' the modelling results for future business case stages.

Given the new bridge crossing would be developed in line with LTN1/20, the appraisal has been undertaken over a 40-year appraisal period.

Scheme costs were entered into the AMAT model in line with TAG Unit A1.2. Since the capital costs prepared by Arcadis do not include Optimism Bias (OB), an uplift value of 55% was applied in AMAT as per the current level of the business case (based on TAG Unit A1-2 cost estimation values). All costs entered into AMAT were in nominal prices (see section 3.6 in TAG Unit A1.2 for further guidance).

Scheme benefits were calculated by forecasting pedestrian and cyclist growth resulting from the scheme. To provide robustness to the appraisal results, low and high uptake sensitivity tests were calculated in addition to the core scenario. These scenarios assume different uptake levels in users crossing the bridge that might result from each intervention. The assumptions that were undertaken in calculating the benefits for the three scenarios are set out in greater detail in the Options Assessment Report.

The outcomes of the economic appraisals are presented in Table 4-1, Table 4-2 and Table 4-3, illustrating the results under the core scenario plus the two sensitivity tests (low and high uptake scenarios). The tables show the various benefits versus costs of each of the shortlisted options, culminating in the standard TAG performance indicators including the Present Value of Benefits (PVB), the Present Value of Costs (PVC), the Net Present Value (NPV) and the Benefits-to-Cost Ratio (BCR). In particular, a BCR of greater than 1.0 indicates a positive return.

Table 4-1: Economic Appraisal Results for all Shortlisted Options (Core Scenario)

Transport Economic Impacts	Option 1	Option 2	Option 3	Option 4 (2)	Option 4 (3b)	Option 5 (2)	Option 5 (3b)	Option 6
Congestion benefit	-780.92	0.00	206.44	1,441.88	1,441.88	1,441.88	1,441.88	1,441.88
Infrastructure maintenance	-3.75	0.00	0.99	6.93	6.93	6.93	6.93	6.93
Accident	-130.10	0.00	34.39	240.22	240.22	240.22	240.22	240.22
Local air quality	-3.75	0.00	0.99	6.93	6.93	6.93	6.93	6.93
Noise	-8.66	0.00	2.29	15.99	15.99	15.99	15.99	15.99
Greenhouse gases	-46.84	0.00	12.38	86.49	86.49	86.49	86.49	86.49
Reduced risk of premature death	-11,883.51	0.00	2,754.63	19,567.57	19,567.57	19,567.57	19,567.57	19,567.57
Absenteeism	-2,992.05	0.00	657.90	4,707.92	4,707.92	4,707.92	4,707.92	4,707.92
Journey ambience	1,387.42	0.00	4,771.72	8,930.18	8,930.18	8,930.18	8,930.18	8,930.18
Highway journey time savings	0.00	0.00	0.00	0.00	0.00	71.00	71.00	4,660.71
Indirect taxation	-22.62	0.00	5.98	41.77	41.77	41.77	41.77	41.77
Investment costs	5,154.06	0.00	22,867.31	16,612.70	16,951.17	16,663.47	17,001.94	30,935.87
Operating costs	0.00	1,435.83	123.76	97.64	97.64	97.64	97.64	161.97
Private contributions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Present Value of Benefits (PVB)	-14,481.04	0.00	8,446.74	35,038.94	35,038.94	35,109.94	35,109.94	39,699.64
Present Value of Costs (PVC)	5,157.81	1,435.83	22,990.08	16,703.42	17,041.88	16,754.19	17,092.65	31,090.91
Net Present Value (NPV)	-19,638.85	-1,435.83	-14,543.35	18,335.52	17,997.05	18,355.75	18,017.28	8,608.74
Benefits-to-Cost Ratio (BCR)	-2.81	0.00	0.37	2.10	2.06	2.10	2.05	1.28

Table 4-2: Economic Appraisal Results for all Shortlisted Options (Low Uptake Scenario)

Transport Economic Impacts	Option 1	Option 2	Option 3	Option 4 (2)	Option 4 (3b)	Option 5 (2)	Option 5 (3b)	Option 6
Congestion benefit	-780.92	0.00	206.44	1,193.81	1,193.81	1,193.81	1,193.81	1,193.81
Infrastructure maintenance	-3.75	0.00	0.99	5.74	5.74	5.74	5.74	5.74
Accident	-130.10	0.00	34.39	198.89	198.89	198.89	198.89	198.89
Local air quality	-3.75	0.00	0.99	5.74	5.74	5.74	5.74	5.74
Noise	-8.66	0.00	2.29	13.24	13.24	13.24	13.24	13.24
Greenhouse gases	-46.84	0.00	12.38	71.61	71.61	71.61	71.61	71.61
Reduced risk of premature death	-11,883.51	0.00	2,754.63	17,392.77	17,392.77	17,392.77	17,392.77	17,392.77
Absenteeism	-2,992.05	0.00	657.90	4,307.85	4,307.85	4,307.85	4,307.85	4,307.85
Journey ambience	1,387.42	0.00	4,771.72	7,518.20	7,518.20	7,518.20	7,518.20	7,518.20
Highway journey time savings	0.00	0.00	0.00	0.00	0.00	71.00	71.00	4,660.71
Indirect taxation	-22.62	0.00	5.98	34.58	34.58	34.58	34.58	34.58
Investment costs	5,154.06	0.00	22,867.31	16,612.70	16,951.17	16,663.47	17,001.94	30,935.87
Operating costs	0.00	1,435.83	123.76	97.64	97.64	97.64	97.64	161.97
Private contributions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Present Value of Benefits (PVB)	-14,481.04	0.00	8,446.74	30,736.69	30,736.69	30,807.69	30,807.69	35,397.40
Present Value of Costs (PVC)	5,157.81	1,435.83	22,990.08	16,704.61	17,043.08	16,755.38	17,093.85	31,092.10
Net Present Value (NPV)	-19,638.85	-1,435.83	-14,543.35	14,032.08	13,693.62	14,052.32	13,713.85	4,305.30
Benefits-to-Cost Ratio (BCR)	-2.81	0.00	0.37	1.84	1.80	1.84	1.80	1.14

Table 4-3: Economic Appraisal Results for all Shortlisted Options (High Uptake Scenario)

Transport Economic Impacts	Option 1	Option 2	Option 3	Option 4 (2)	Option 4 (3b)	Option 5 (2)	Option 5 (3b)	Option 6
Congestion benefit	-780.92	0.00	331.56	2,079.79	2,079.79	2079.79	2079.79	2079.79
Infrastructure maintenance	-3.75	0.00	1.59	9.99	9.99	9.99	9.99	9.99
Accident	-130.10	0.00	55.24	346.50	346.50	346.50	346.50	346.50
Local air quality	-3.75	0.00	1.59	9.99	9.99	9.99	9.99	9.99
Noise	-8.66	0.00	3.68	23.07	23.07	23.07	23.07	23.07
Greenhouse gases	-46.84	0.00	19.89	124.75	124.75	124.75	124.75	124.75
Reduced risk of premature death	-11,883.51	0.00	3851.48	31,142.09	31,142.09	31142.09	31142.09	31142.09
Absenteeism	-2,992.05	0.00	859.68	7,794.28	7,794.28	7794.28	7794.28	7794.28
Journey ambience	1,387.42	0.00	5483.85	9,687.62	9,687.62	9687.62	9687.62	9687.62
Highway journey time savings	0.00	0.00	0.00	0.00	0.00	71.00	71.00	4,660.71
Indirect taxation	-22.62	0.00	9.61	60.25	60.25	60.25	60.25	60.25
Investment costs	5,154.06	0.00	22,867.31	16,612.70	16951.17	16663.47	17,001.94	30,935.87
Operating costs	0.00	1,435.83	123.76	97.64	97.64	97.64	97.64	161.97
Private contributions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Present Value of Benefits (PVB)	-14,481.04	0.00	10,616.56	51,268.34	51,268.34	51,339.34	51,339.34	55,929.05
Present Value of Costs (PVC)	5,157.81	1,435.83	22,989.48	16,700.35	17,038.82	16,751.12	17,089.59	31,087.84
Net Present Value (NPV)	-19,638.85	-1,435.83	-12,372.92	34,567.99	34,229.52	34,588.22	34,249.75	24,841.20
Benefits-to-Cost Ratio (BCR)	-2.81	0.00	0.46	3.07	3.01	3.06	3.00	1.80

The above results show the best performing options under all three scenarios are:

- Option 4(2) has a BCR between 1.84 and 3.07 – an active travel only replacement bridge; and
- Option 5(2) has a BCR between 1.84 and 3.06 – a replacement bridge for active travel users with provision for emergency vehicle access.

4.5 Distributional Analysis

The distributional analysis of the best performing option is planned to be undertaken during the Outline Business case (OBC) stage of the project development.

4.6 Wider Analysis

The wider analysis of the best performing option is planned to be undertaken during the Outline Business case (OBC) stage of the project development.

4.7 Value-for-Money

The results of the economic appraisals are summarised in Table 4-2 below. The table shows the various benefits versus costs of each of the shortlisted options, culminating in the standard TAG performance indicators including the Present Value of Benefits (PVB), the Present Value of Costs (PVC), the Net Present Value (NPV) and the Benefits-to-Cost Ratio (BCR). In particular, a BCR of greater than 1.0 indicates a positive return.

Table 4-4: Economic Appraisals Results for Best Performing Shortlisted Options (Core Scenario)

Option	PVC	PVB	BCR	NPV
Option 4 – active travel only	**£17,042**	**£35,039**	**2.06**	**£17,997**
Option 5 – active travel with emergency access	**£17,093**	**£35,110**	**2.05**	**£18,017**

4.8 Non-Monetised Benefits

While the results above indicate option performance against impacts that can be quantified and monetised. However, there are additional impacts that are more difficult to appraise in this way. Therefore, the section considers the impact of the new bridge on a range of other elements, as set out in Table 4-5 according to the DfT Appraisal Summary Table framework.

The two shortlisted options show very similar impacts, however option 5, with emergency access, provides a more positive 'score' against option value and reliability for businesses and residents.

Table 4-5: Appraisal Summary Table

Impact		Commentary	Op4	Op5
Economy	Business users & transport providers	Access to the site will be retained, therefore this is neutral in terms of benefits.		
	Reliability impact on Business users	A permanent replacement structure with emergency access provides confidence to business users that they have security of access to the site over the long term and provides confidence of risk mitigation in case of emergencies such as fire or flooding.		
	Regeneration	A replacement bridge that has improved attractiveness and accessibility helps to support the Mills regeneration site		
	Wider Impacts	Removal of the temporary structure improves the attractiveness of the site, which may encourage greater use.		
Environmental	Noise	Noise impact of new bridge users leaving the highway network is monetised as part of the economic assessment (AMAT)		
	Air Quality	Air quality of new bridge users leaving the highway network is monetised as part of the economic assessment (AMAT)		
	Greenhouse Gases	Greenhouse gas impact of new bridge users leaving the highway network is monetised as part of the economic assessment (AMAT)		
	Landscape	In accordance with the heritage statement, it is important that a bridge be maintained to retain the relationship of the heritage buildings and their urban settlements to the river. Any bridge design must carefully consider and minimise impact on the historical industrial landscape. Therefore, this category is neutral.		
	Townscape			
	Historic Environment			
	Biodiversity	Construction of a new bridge (and associated demolition works will impact local environment in the short term). Plans associated with planning approvals to be developed as the project progresses will provide an opportunity to deliver a net gain outcome over the longer term.		
	Water Environment	Construction of a new bridge, and associated demolition works will impact local water environment, but this expected to be short term only.		
So	Commuting and Other users	Congestion impact of new bridge users leaving the highway network is monetised as part of the economic assessment (AMAT)		

	Reliability impact on Commuting and Other users	A permanent replacement structure with emergency access provides confidence to users that they have security of access to the site over the long term and provides confidence of risk mitigation in case of emergencies such as fire or flooding.		
	Physical Activity	Health impacts for new bridge users is monetised as part of the economic assessment (AMAT)		
	Journey Quality	Journey quality for bridge users is monetised as part of the economic assessment (AMAT)		
	Accidents	Safety impacts of attracting new bridge users is monetised as part of the economic assessment (AMAT)		
	Security	Improved lighting at the bridge will improve security, safety and perceptions of safety for users when light conditions are poor.		
	Access to services	Preferred options provide access across the river, with enhanced accessibility for those with mobility impairments		
	Affordability	Options proposed provide free river crossing for all users		
	Severance	Severance across the river that would result from the closing of the bridge is prevented by all bridge options, excepting bridge demolition / long term closure.		
	Option and non-use values	Emergency access is a significant non-use benefit, as it mitigates risks from incidents such as flooding or fire by enabling emergency vehicle entry if Option 5 is adopted.		
Public	Cost to Broad Transport Budget	Cost estimates provided by Arcadis		
	Indirect Tax Revenues	Fuel duty impact of new bridge users leaving the highway network is monetised as part of the economic assessment (AMAT)		

4.9 Preferred Option

From the long list of options for a future river crossing generated, including an option to ‘do nothing’, two viable options emerged with a high benefit-to-cost ratio, namely:

- An option to install an active travel modes-only bridge, identified in table 4-4 Economic Appraisal Results for all Shortlisted Options as option 4.
- An option to install an active travel modes-only and accommodate vehicles responding to an emergency, identified in table 4-4 Economic Appraisals Results for all Shortlisted Options as option 5.

To include an emergency service access to the bridge is important to the Council for several reasons:

- The motor vehicular route through the Mills complex is constrained by the existing layout of buildings, preventing access by large vehicles approaching from Haslams Lane to the east making an access from the west to businesses and residential properties within the Mills complex, an essential safety requirement for an emergency response.
- Two points of access for emergency services will provide resilience should one access be affected by maintenance or an unplanned event. This is particularly important given the historic

buildings, now occupied by diverse and vibrant businesses with varying operational hours and their location adjacent to the river.

- An emergency access to the west of the Mills complex and across the river Derwent will provide mitigation for both the emergency services and residents and business occupiers affected during flooding events, this is essential as Haslams Lane is low lying and can be cut off when river levels are high, as happened most recently during storms in 2023. Mitigation in the form of an access and egress for those affected will provide resilience for emergency response planning.

As the estimated construction costs for both options does not vary significantly and as both provide a high BCR, the Council will use the opportunity to provide mitigation in the form of an essential emergency service access to the Mills complex and properties on Haslams Lane in order to promote the option to provide a bridge for active travel use plus an emergency service vehicle access as the preferred option.

5 Commercial Dimension

This section outlines the procurement strategy and policies, teams and resources in place, and the council's likely approach. It demonstrates Derby City Council's capability, referring to similar recent and relevant projects that the Council has delivered successfully.

5.1 Procurement Strategy

Derby City Council's corporate procurement service is central to procurement. The main aims of the service are to provide information, guidance, advice and support to other departments during the procurement process, to manage its own specialist categories and to maintain policy and strategy with central government objectives and guidelines[3].

Procurement Strategy and Rules

Derby City Council follows the rules set out in Derby City Council Procurement Strategy and Contract Procedure Rules for the procurement of building, construction work, along with any other necessary goods and services. Compliance with the strategy ensures that the council achieves value for money while maintaining high standards and quality; that the highest standards of integrity are met; that there is fairness in allocating contracts; and that the council complies with the National Procurement Strategy for Local Government. It also ensures that any fraud or corruption is effectively prevented and protects the Council and its employees.

Approach and Resourcing

Derby City Council will consider their procurement approach for design and construction throughout scheme development with the procurement approach being decided by the Programme Board and Senior Responsible Owner. The approach will involve the use of frameworks, with Midlands Highways Alliance Plus (MHA+) Medium Schemes Framework considered appropriate for municipal engineering projects with no upper financial limit, while SCAPE and ESPO frameworks may also be used.

For projects of this size and cost, all procedures must involve Derby City Council's Procurement Service. The service will ensure the contract rules, financial regulations, internal audits, risk management, procurement board strategy and monitoring of the scheme are followed and managed appropriately. The service is highly capable and experienced, having procured, resourced and delivered many capital investment projects successfully over the past two years, including highways projects.

The most significant and relevant example of this is a Transforming Cities project consisting of a city centre public realm works scheme, including transport interchanges and other public realm improvements. This received £16 million of funding, with the scheme due to be successfully completed in July 2025. In addition, a cycleway between the city centre and Raynesway, at a cost of £1.5 million, was successfully completed and delivered in March 2025. A further two major highways sustainable travel interventions were also delivered in the 2024-2025 period to date. This demonstrates the frequency of successful delivery by Derby City Council for projects of this nature and shows their capacity for successful scheme completion. It is therefore not expected that additional resourcing outside of Derby City Council's procurement service will be necessary for managing the commercial aspect of this scheme.

[3] Procurement policy - Derby City Council

5.2 Market Capability

Though use of frameworks can result in higher cost than a direct tender process between Derby City Council and potential suppliers, frameworks offer multiple advantages. For example, the MHA+ framework aims to support authorities by sharing best practices in delivery, supports provision of effective tendering, securing better value for money. In addition, frameworks save time and demonstrate that suppliers in the market meet the standards the authority requires and are ready and able to deliver. Derby City Council can then either procure through a direct award or a call-off competition among pre-selected suppliers who are registered on the framework.

Given the characteristics and constraints at the site present significant engineering challenges which influence the construction costs and associated risks, Derby City Council are seeking early contractor involvement (ECI) for this scheme. This aims to provide buildability advice and further detailed estimated construction and maintenance costings.

The scope for this ECI is included as an appendix to the design options report (Appendix A3). This ECI will provide an early opportunity for Derby City Council to assess market capability and to identify an appropriate contractor who could carry out the works for this scheme. This could take place through the above frameworks, either through a direct award with a trusted supplier, or through a call-off mini-competition between suppliers within frameworks.

The scope for contractor involvement will include:

- A site visit with Derby City Council and design consultants (Arcadis);
- Review of the information provided in the design options report;
- Advice on programme;
- Provision of costings, buildability report and construction programme for each option; and
- Provision of maintenance costs.

6 Financial Dimension

The financial case outlines the approach taken to assess affordability, identifying budgets and funding cover for development, construction and maintenance of the bridge.

Costing work to date has covered the shortlisted options, providing indication of comparative likely capital and maintenance costs. Further stages of project development will define these costs with more detail, but current forecasts of budget and funding cover are considered suitable to cover the anticipated cost estimates for delivery of a preferred options for a new bridge.

6.1 Capital and Revenue Costs

Scheme costs include construction costs of a new solution as well as long term maintenance and scheme design and development costs.

Capital and Future Maintenance Costs

Costs of bridge removal/demolition and materials and construction of a new structure have been estimated as part of the Arcadis option assessment work (Appendix A3). A summary of these estimates, in present values (2025) is provided in Table 6-1.

Capital costs include allowances for preliminaries, checking and planning (15%), Midlands Highway Alliance (MHA4) fee (6% assumed), contractors risk and contingency (7%) inflation (5.5% over 2 years to Feb 2027).

While there are no capital cost implications assumed for maintaining the current prefabricated structure, the on-going maintenance costs are considerable and not considered fundable within existing budgets beyond 2027.

Table 6-1: Overall Whole Life Cost (Total Future Maintenance and Inspection Cost Plus Total Capital Cost)

Overall Cost (£)			
Options	Total Future Maintenance & Inspection Cost (Exc. VAT) (£)	Total Capital Cost (Exc. VAT) (£)	Overall Whole Life Cost (Exc. VAT) (£)
1	0	3,081,756	3,081,756
2	2,414,967.34	0	2,414,967.34
3	187,785.30	15,156,785	15,344,570
4 (2)	164,223.37	10,180,045	10,344,268
4 (3b)	164,223.37	10,449,361	10,613,584
5 (2)	164,223.37	10,220,442	10,384,665
5 (3b)	164,223.37	10,489,759	10,653,982
6	272,421.95	21,576,870	21,849,292

Source: Arcadis Option Report, May 2025, 30194918-ARC-SBR-XX-RP-CE-00005

The following assumptions and exclusions were considered in the Capital Costing evaluation:

- The cost does not include the diversion of utilities.
- The cost does not include any survey cost required during the design stage (e.g. ground investigations, environmental and ecology surveys, topographical surveys, flooding

analysis/surveys, archaeology, diving inspections, building/bridge condition and structural surveys).
- The cost does not include use of private land and land remediation works.
- The cost does not include cost for permits, consents & licenses.
- Optimism bias and costing of project risks has been excluded, this is assessed within this business case with an uplift on costs of 55% in accordance with TAG guidance.
- Consultation, planning and business case preparation.
- Costings assume the works will commence for each option in April 2027.

The following assumptions and exclusions were considered in the whole-life cost calculations:

1. Inspection costs consider only time-charge estimates for inspection personnel. Other associated costs such as traffic management costs, access equipment hire, and site transportation hire (inspection team hire car, or public transport) costs are not included.

2. Costs for scheduled routine maintenance is included for joints and bearing replacement, bridge deck resurfacing and re-waterproofing and parapet replacements. These costs are based on Galliford Try's estimated maintenance costs for each element to the following schedule. Bearing replacement works programme duration vary between 4 and 9 weeks due to the variation in the number of bearings between options.

3. The values supplied within are discounted 'Present Value' (PV). This is the current value of a future sum of money. The reporting of future maintenance costs after discounting is in accordance with the methodology supplied within DMRB CD 355: Application of Whole Life Costs for Design and Maintenance of Highway Structures. The discount factors used year-on-year are obtained from the UK Treasury 'Green Book'. Discount rates are applied in accordance with CD 355 and The Green Book and are as follows: Years 0 to 30 = 3.5% pa, and Years 31 to 60 = 3.0% pa (note: CD 355 provides a maximum evaluation period of 60 years only for future maintenance events).

Derby City Council is aware of the engineering and construction challenges at the DAMB site and the level of influence these have on costs and risks. Further work on detailed costings will be developed; Derby City Council and consultants are seeking Early Contractor Involvement to provide input and support to develop these cost estimates further and aid progression of the scheme and business case. This is planned to include maintenance / whole life costs as well capital costs.

Scheme Development Costs

Scheme development costs were produced by Arcadis (Appendix A3) and are shown in the table below.

Table 6-2 Arcadis Report Scheme Development Costs

New Cost Item	Additional Cost	Comments/Assumptions
Preliminary Design (with inflation)	£1,272,878.21	Split 50/50 across Years 1 and 2
Detailed Design (with inflation)	£639,257.97	Incurred in Year 2
Construction Management and Handover (with inflation)	£914,062.82	Split 40/60 over Years 3 and 4
Total	**£2,826,199.00**	

Total Costs

Total project costs at this stage will include development spend to date, plus additional development work as well as total capital funding ask. The project development costs include an Inflation Uplift of 12.25%, as estimated by the ARCADIS infrastructure report. In addition, a 55% optimism bias value has been applied to all future scheme development and construction costs, in accordance with TAG guidance to cover unforeseen expenses such as environmental surveys and other unknown costs. These project costs came to an estimated total of £21,750,000.

Table 6-3: Project Costs

Funding Elements	Spent Funding	New Funding
Costs to date (SOBC and design development)	£800,000	–
Further Appraisals (OBC, FBC, HIA, EIA Costs) (including Inflation Uplift)		£550,000
Preliminary Design & Planning (including Inflation Uplift)		£1,273,000
Detailed Design (including Inflation Uplift)		£640,000
Construction & Handover Design Costs (including Inflation Uplift)		£915,000
Expected Capital Cost		£10,654,000
Sub-Total Cost		£14,032,000
Optimism Bias (applied at 55%)		£7,718,000
Total Expected Costs	**£800,000**	**£21,750,000**

Note: figures in the table have been rounded to make them easier to read

6.2 Funding Approach

The approach to funding these costs is outlined below. The work to date and covering stage 2 feasibility work and completion of the SOBC has been funded by Derby City Council, with additional indicative development funding provided by EMCCA.

Capital funding ask for procurement and delivery of the replacement bridge is requested from EMCCA as part of the Transforming City Regions (TCR) allocation. This would be spent within the timeframes of the funding requirements. The below figures have been derived from the annual estimated costs as presented in the economic case and in the OAR, with a 55% optimism bias applied for each year.

Table 6-4: Project Funding

Funding source	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Total
Derby City Council LTP development funding (secured and spent)	£800,000							**£800,000**
EMCCA development funding		£550,000						**£550,000**
Proposed funding bid to EMCCA for TCR capital funding (unsecured)			£1,273,000	£640,000	£1,940,500	£6,938,400	£10,408,100	**£21,200,000**

Note: figures in the table have been rounded to make them easier to read

Currently no further private and/or match funding has been identified (through Section 106, for example) contributions. This will continue to be reviewed throughout the development of the project.

The new bridge would become a Derby City Council asset and therefore part of the Council's asset management approach, utilising Highways Maintenance Block funding for which EMCCA are the funding body. Maintenance of a long-term solution would be managed under Derby City Council's Highways and Transport programme with associated governance arrangements.

Through the Section 73 officer, Derby City Council would ensure that the funds are being used appropriately, prudently and are in accordance with the decisions made by the relevant decision-making body. Costs and spend will be monitored as part of project evaluation activities.

7 Management Dimension

The purpose of the management dimension is to demonstrate that robust arrangements are in place for the delivery, monitoring and evaluation of a replacement bridge according to Derby and EMCCA processes and funding timescales.

The DAMB replacement project is part of a £71m programme containing 29 projects with established programme governance and procedures. This section sets out the delivery details for the DAMB elements.

7.1 Assurance Processes

Established Derby City Council processes

Derby City Council Programme Management Office (PMO) gateway process guidance sets out a simple and robust process to identify, adopt, approve and review all programmes and projects, which have been assessed as meeting certain criteria. The process runs in parallel with a project lifecycle, the five-stage approach to programme and project management.

Table 7-1: PMO gateway and assessment criteria

Gateway criteria		Assessment for PMO
Budget	Capital projects of £1million or more Revenue projects of £250,000 or more Programme/project required to achieve agreed MTFP savings External funding opportunity has been identified that will be in line with the defined project costs	If your proposed programme/project meets any of the budget criteria it must be presented to the PMO board for gateway consideration.
Impact	A significant positive or negative impact for: • more than 25,000 residents will be impacted or 2 or more wards • more than 1,000 colleagues or 3 or more departments	If the programme/project does not meet any of the identified budget criteria but meets at least two of the identified criteria for 'impact, importance or outcome' it must be presented to the PMO Board for gateway consideration. If the programme/project only meets one of the 'impact, importance or outcome' criteria, please seek advice from the Assurance Team on whether the programme/project should be considered through the PMO board.
Importance	Not delivering the project will result in a significant strategic risk for us scored at 12 or more within the next 12 to 24 months. For example, significant negative impact in physical, social, environmental or economic terms.	
Outcome	It is in the latest Council plan or is a strategic opportunity recommended by senior leadership, for example, Cabinet or a Director for inclusion in a future strategic plan, for example, within the next 12 months.	

The PMO gateway process consists of independent assurance reviews, at the five key stages of a programme or project lifecycle, to assure successful delivery. These stages are set out in Table 7-2, with document information and mapped against Royal Institute of British Architects (RIBA) stages. The process is managed by Derby City Council's Assurance team who are the PMO lead.

All programmes and projects meeting the PMO gateway criteria must report to the PMO to get approval from the PMO board before starting the next stage of the project. This applies to both revenue and capital-funded projects.

The Project Management Office also coordinate lessons from similar projects. Key leads within Derby City Council are common to all schemes of this type and are consulted throughout. Lessons are documented throughout the programme and a full review conducted at project closure.

Table 7-2: Key Gateway Stages and Requirements

Gateway	Document or information	Required	RIBA plan of work stages
Gateway 1: Concept	Initial proposal Board presentation External funding information Government or legislative obligations	Mandatory Mandatory If relevant If relevant	0 – strategic definition
Gateway 2: Feasibility	Outline business case Board presentation Risk log Terms of reference Lessons log Equality impact assessment	Mandatory Mandatory Mandatory Mandatory Mandatory Mandatory	1 – preparation and briefing
Gateway 3: Development	Full business case Board presentation Investment appraisal or financial monitoring Risk log and issue log Benefits review plan Decision log Stakeholder and communications plan Project plan Equality impact assessment	Mandatory Mandatory Mandatory Mandatory Mandatory Mandatory Mandatory Mandatory Mandatory	2 – concept design 3 – spatial coordination 4 – technical design
Gateway 4: Delivery	Board presentation Updated gateway 3 documentation	Mandatory Mandatory	5 - manufacturing and construction
Gateway 5: Closure	End of project report Lessons log Board presentation	Mandatory Mandatory If relevant	6 – handover

Emerging EMCCA Processes

The East Midlands Combined County Authority (EMCCA) Assurance Framework[4] and HM Treasury Green Book will steer the approach taken to manage the DAMB project.

The EMCCA Assurance Framework sits alongside several key governance and policy documents – most notably the Devolution Deal, the CCA Constitution, the Financial Regulations, and the Monitoring and Evaluation Framework. Additional frameworks are emerging as EMCCA becomes established, this includes the Risk Management Framework, guided by the four pillars 3 lines model set out in the HMT Orange Book.

EMCCA will be developing a detailed Monitoring and Evaluation framework and a Single Assurance Framework for Inclusive Growth (SAFIG). As EMCCA continues to develop and refine formal mechanisms for assurance, prioritisation, and governance, Constituent Councils (including Derby City Council) will be required to report transparently to EMCCA on their spending activities supported by regional funding. This will include providing clear, accountable records of how funds are allocated and utilised, alongside a detailed breakdown of the measurable outputs, outcomes and benefits derived from such expenditure. Compliance with the existing EMCCA Assurance Framework is a requirement until the SAFIG is in place; this includes how to approach modelling and appraisal as well as wider business case development requirements.

EMCCA and Constituent Councils will also be required to demonstrate how the funding seeks to deliver LTP and TCR objectives, for example: reducing transport emissions, improving connectivity, improving journey satisfaction and supporting improved air quality[5].

As the stages of business case develop, any updated or additional guidance from EMCCA, or other relevant organisation, will be considered.

[4] *https://www.eastmidlands-cca.gov.uk/content/uploads/2025/02/Assurance-Framework.pdf*
[5] *(Public Pack)Agenda Document for Transport and Digital Connectivity Committee, 04/03/2025 11:00*

7.2 Programme

Key project milestones for the development of the DAMB work to reach delivery stage are set out in **Error! Reference source not found.**. These work towards delivery of a new structure in 2027, and cover the relevant assurance gateways, funding and procurement reviews as well as owners to provide accountability and clarity. A Gannt chart of the project timeline is provided in Appendix A4.

Table 7-3 Project Programme

Stage	Description	Key Activities	Deliverables	Indicative Timescales
Project Scope Definition and Feasibility	Scope definition and options appraisal to establish preferred option	• Data Collection • Financial assessment • Parking studies • Pedestrian and cycle count data • Feasibility studies • Key stakeholder workshop • Initial Option Appraisal Report	• Desk top heritage study • Financial assessment • Baseline data • Strategic Outline Business Case	Dec'25
Preliminary Design	Develop preferred option	• Traffic Modelling • Cost estimates • Environmental screening • Public engagement	• Preliminary design drawings • Written Scheme of Investigation (Archaeology) • Heritage Statement of Significance • Equalities Impact Assessment • Outline planning application • Outline Business Case	Jan'26 – Jan'28
Detailed Design	Complete detailed design and contractor pricing	• Technical design • Stage 2 Road Safety Audit • Utility coordination • Prepare specifications	• Agreed design (design freeze) • Detailed design pack • Construction drawings • Bill of quantities • Works package for pricing • Full Business Case	Feb'28 – Dec'28
Statutory Processes and Approvals	Secure necessary approvals and consents	• Land acquisition/CPO • Traffic Regulation Orders • Planning	• Approved orders and consents	Feb'28 - Dec'28
Procurement and Contracting	Procure contractor	• Tender documentation • Evaluation and award • Pre-start meetings	• Tender evaluation report • Contract	Jan 29 – Jun '29
Construction and Delivery	On-site works	• Site mobilisation • Supervision and QA • Traffic Management	• Construction Progress Reports • Completion certificate	Jul 29 – Mar '31

		• Stage 3 Road Safety Audit •		
Monitoring and Evaluation	Post construction review	• Post opening traffic counts • Economic evaluation • Stage 4 Road Safety Audit	• Post implementation review report	Apr ’31 – Apr’32

7.3 Governance

Derby City Council has recent successful experience of planning and delivering large programmes of transport improvement, in partnership with neighbouring authorities, for example through the delivery of the Transforming Cities Funding package. The Department for Transport (DfT) awarded Derby and Nottingham City Councils through the Transforming Cities Fund (TCF) with Nottingham City Council as the Accountable Body. The Joint Nottingham Derby Mobility Programme Board was established with members of both Nottingham and Derby City Council. It retains responsibility for certain TCF financial decisions. It is anticipated that a similar set up will apply to the delivery of TCR (formally CRSTS2) funded programmes, in coordination with EMCCA.

In June 2020 Derby City Council Cabinet delegated authority to the Strategic Director for Communities and Place, following consultation with the Cabinet Member for Regeneration, Planning and Transport, and the Strategic Director of Corporate Resources to make executive decisions on the future programme.

Further financial delegations made by the Strategic Director of Communities & Place to members of the Board, SRO, Programme and Project Teams are detailed in Figure 7-1. An established Change Control Process provides clarity on tolerances for changes for escalation to SRO and beyond (Appendix A5). These cover areas of cost, scope, time, risk, quality and benefits, with a change request form and log part of the standard process.

Figure 7-1: Programme Governance Diagram

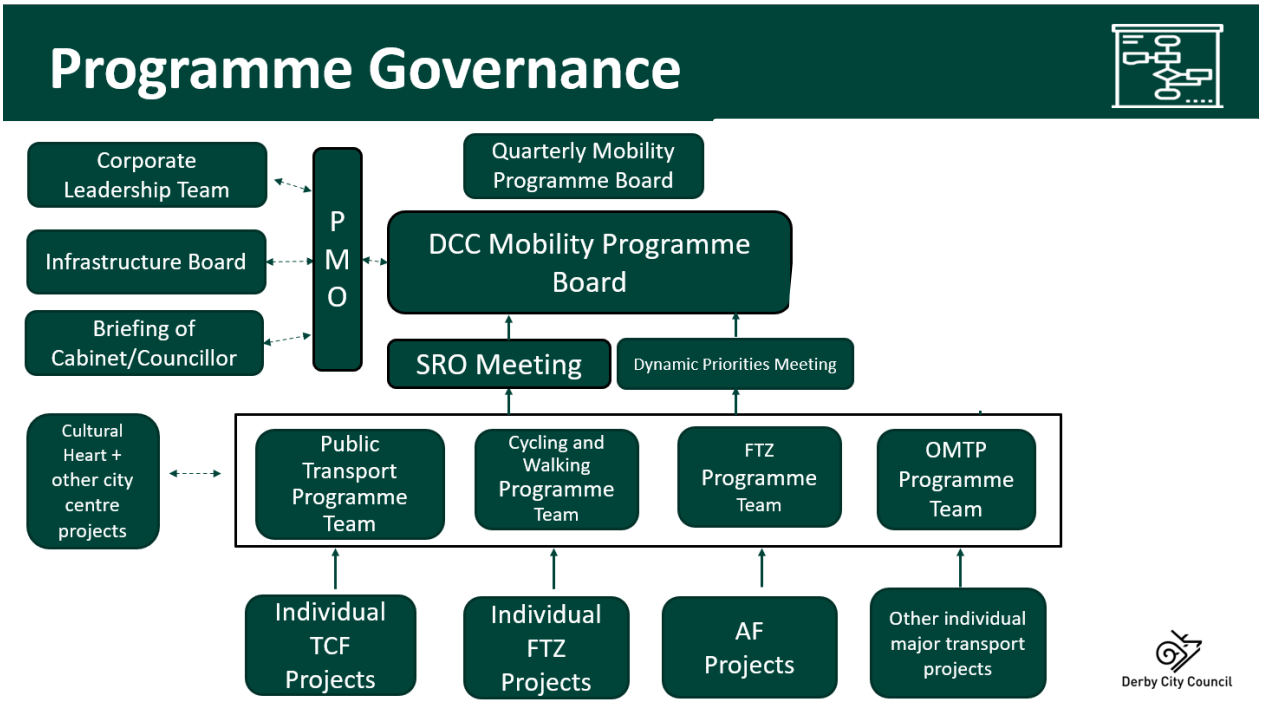
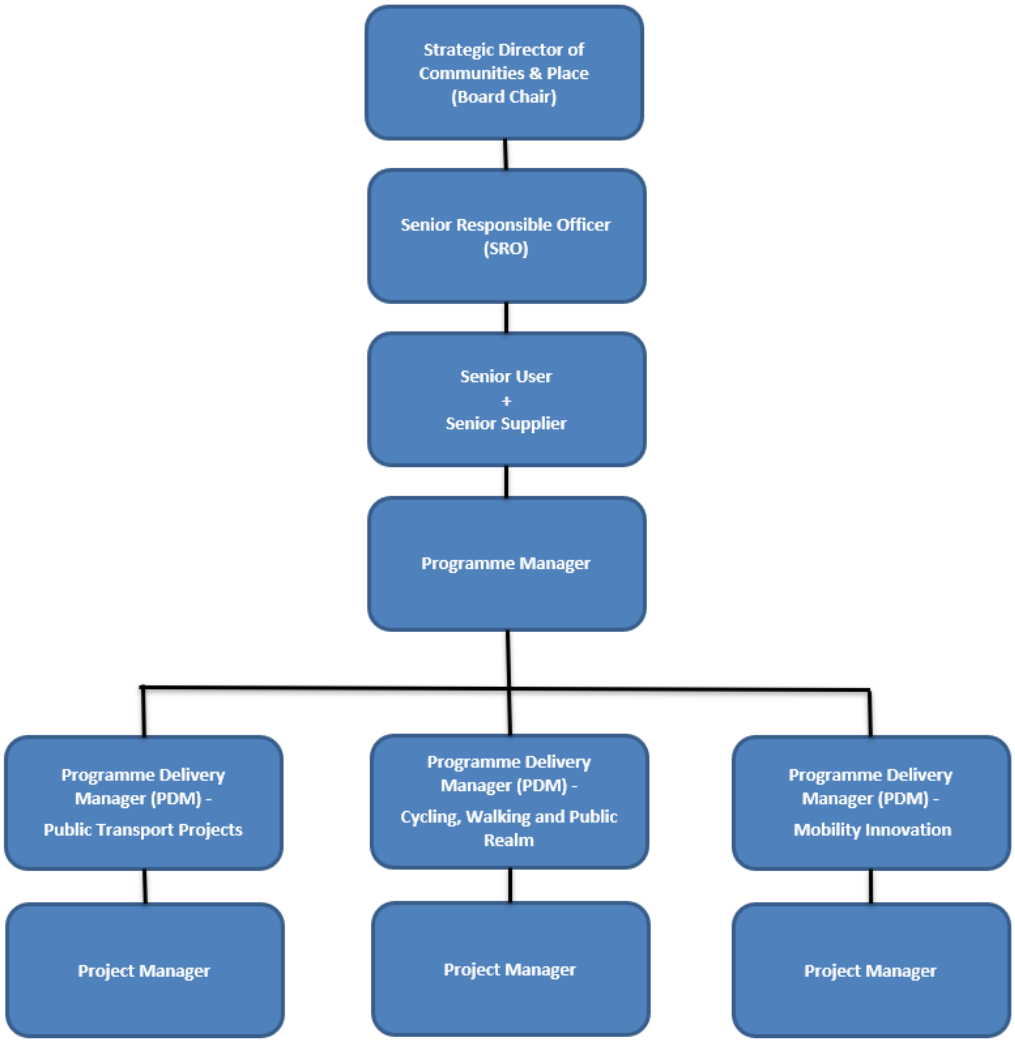


Figure 7-2: Project Reporting



Resource Requirements

Resource requirements cover a number of internal and external teams. For development of the feasibility / concept stage these have included the following personnel resources. Input from similar teams will be required for the OBC/FBC development, with potential for additional specialisms.

Table 7-4: Resource Requirements

Internal	Engineering	Engineering Group Manager major projects – advisory/management
Internal	Engineering Structures	Delivery manager (NEC) – technical project manager
Internal	Engineering Structures	Senior Technician – technical support and project team
Internal	Engineering	Business case development/funding/planning
Internal	Highways & Transport	T&T Team Leader – technical support business case & planning
Internal	Highways & Transport	Programme Manager – link between project & programme
Internal	Highways & Transport	Project Manager – Governance (Mobility Programme)
Internal	Highways & Transport	Project officer – support governance and technical scheme progression
External	Arcadis	Technical input and design
Internal	Procurement	Advisory at project team level (and how are procurement consulted at Board level?)
Internal	Legal	Advisory at project team level and same question here about how legal are represented at Board to ratify?)
Internal	Traffic & Transport	Area Traffic Manager– advisory and part of project team
Internal	Comms & Marketing	Comms & Marketing Officer - advisory and on project team
Internal	Consultation	Consultation support and engagement
External	Heritage advisor	Advisory – support through option development, Heritage Statement of Significance and
Internal	Finance	Scheme accountant
Internal	Estates	Advisory
External	Contractor (Gal)	Contractor – is to develop and produce guidance on buildability and realistic costing to inform the SOBC
Internal	Planning	

7.4 Carbon Management / Climate Implications

The options for the bridge have different environmental considerations. These include embodied carbon in construction, transport emissions from trips in and through the local area over the lifespan of the structure – including carbon dioxide emissions and local air quality impacts. Additional impact from demolition, construction and enabling works for a new structure would impact the flow of the river from alternative piers, river pollution impacts from construction and landscape impact to the riverbank.

Transport Emissions
The bridge accommodates active travel users and maintains and provides accessibility to the north of the city and retains an important link on the national cycle network. Work to retain the link through the provision of the prefabricated bridge has provided opportunities to engage with the local community and promote low carbon travel modes for more local journeys for the long term.

Embodied Carbon
A whole life carbon assessment of potential new structures has been undertaken as part of engineering option review. The Arcadis Options report (Appendix A3) quantifies the embodied carbon associated with each of the new bridge construction options. These range from 387 tCO2e to 582 tCO2e for a vehicle bridge.

Waste
Installation of the bridge has required the use of timber, steel, and concrete pads; however, waste will be managed and minimised as much as possible.

Opportunities to reuse materials wherever possible will be explored with contractors and recycled wherever another use cannot be found. There is potential for relocating the prefabricated bridge (in whole or in sections) to reuse it elsewhere in the City (subject to funding approval). Concrete pads can be used as a base in highway construction.

Climate Change Impact Assessment
A Derby City Council Climate Change Impact Assessment (CCIA) was completed for the medium-term solution in 2023, and the resulting scores illustrated in Figure . This would be replicated for any permanent replacement option as the business case progresses towards Full Business Case (FBC). This impact assessment is expected to cover a number of climate topics as listed below and assign a score where an impact is identified, including the following issues (where relevant):

- Adaptation;
- Buildings;
- Business;
- Energy;
- Influence;
- Internal Resources;
- Land Use Impacts;
- Procurement;
- Transport; and
- Waste.

Figure 7-3: Derby City Council CCIA for prefabricated bridge Walters' Walkway

7.5 Risk Management

Monitoring and Mitigating Risk

Derby City Council have an established process for monitoring and managing risk. All risk logs and registers are live documents which are updated by the team as required and regularly reviewed at project/programme team/programme board meetings.

Risks and issues are considered at programme and project level. Programme risk and issues registers have been compiled which are used as the basis for individual project risk and issues registers. Likewise, a project risk deemed to be 'significant' after mitigation will feed into the programme risk register and a project issue considered 'high' programme board priority will be recorded in the programme issues register.

The programme team brings any significant risks and high issues to the attention of the SRO Programme Board and Derby Mobility Programme Board via the highlight report. The Governance Manager ensures quarterly sign-off of the programme risk and issues registers by the SRO and Senior User.

Risk contingencies are initially determined on a percentage basis and held against projects. This allows for flexibility as not all projects are running in parallel, and it might be appropriate to ensure completion of one project by accessing the contingency whilst re-assessing the scope of a project from the same business case which has not yet progressed as far.

Project Risks

Key risks and mitigations for the DAMB project have been outlined in section 3.7, with the full risk register in Appendix A2 with mitigations and management activities identified.

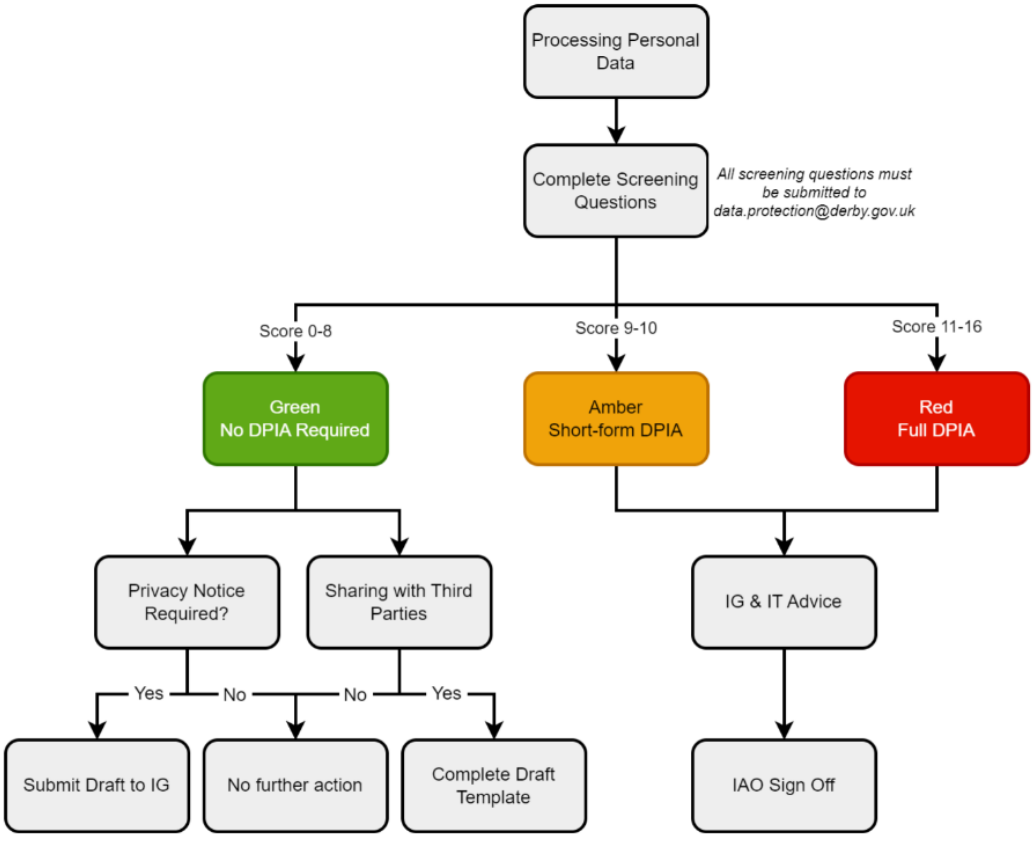
Option specific design risks have been identified and assessed for each shortlisted option as part of the Arcadis engineering work (Appendix A3), this includes impacts and probability scores, with RAG rating, identified owners and mitigations. A total risk score provides an indication of comparative challenges for each option, where full vehicle bridge replacement has the highest known risk, and removal of the bridge, the lowest.

With involvement of internal design, management and engineering teams in the development and installation of the medium-term bridge, a number of on-site and local risk factors have already been identified, helping to mitigate and plan, ahead of selecting a way forward for the permanent replacement.

Data / Information Security

Derby City Council's *Data Protection Impact Assessment (DPIA)* helps to identify and reduce the data protection risks of a project. It ensures that any changes involving the use, management, or sharing of sensitive personal data are handled correctly. This will be employed throughout the delivery of the project, and wider programme to ensure compliance with relevant data protection legislation and best practice.

Figure 7-4: Data Protection Impact Assessment Process



7.6 Monitoring and Evaluation

Monitoring and Evaluation Strategy

A monitoring and evaluation strategy will be developed during the OBC stage. This will outline the metrics to be surveyed and measured and timeframes. This will incorporate any known funding grant conditions and organisational monitoring / assurance frameworks requirements.

A logic map has been prepared, and presented in the Strategic Dimension, explaining the relationships between objectives, inputs, outputs, outcomes and other indicators which provides the basis for the project as the detail of the monitoring and evaluation plan develops. This highlights alignment of project benefits with wider organisational aims and objectives and will inform benefit realisation planning.

Baseline and Data

The study to date has been undertaken using up-to-date baseline usage information, with a number of local multi-modal surveys undertaken in recent years. This exercise will need to be repeated after the scheme has opened at an agreed period, for example 12 months after opening and then 36 months after opening.

Staff time will be required to arrange the data collection and then analyse the findings, which will be reported as lessons learnt for other similar projects in the future.

The budget required for data and resources, will depend upon the frequency and amount of data to be collected to provide a representative figure. This will be designed to meet the requirements of known organisational and any grant conditions.

Reporting Metrics

Project monitoring reports will include financial, output, and narrative updates according to the information set out in the business case. These will provide explanation their progress to spend and delivery targets and noting specific changes to the project and challenges in delivery.

Monitoring reports will be summarised for consideration, likely on a quarterly basis by the appropriate board, using a RAG rating system. In line with good practice, and to support effective and robust decision making, monitoring reports to the board will typically summarise good progress and areas of good practice.

Key expected elements for the project to monitor as the scheme develops are:

- Delivery against agreed dates;
- Delivery against specification;
- Outcomes demonstrated through post-delivery evaluation against value for money and business case forecasts; and
- Delivery of outputs identified in the Business Case.

Project closure will also trigger a reporting milestone, with an End of Project Delivery Report submitted within 3 months of completion. This will include elements such as demonstration of successful delivery and reporting of lessons learnt according Assurance Framework / grant funding requirements.

7.7 Benefits Realisation

A benefits realisation plan will be developed as the project progresses through the detailed development process setting out the approach to managing the realisation and a credible plan for the evaluation of benefits including a set of benefit profiles. This will follow the Derby City Council standard framework approach as set out in Table 7-5.

Table 7-5: Benefit Realisation Plans

Benefit	Description of the benefit identified.
Method of Measurement	Mechanism for measuring the benefit e.g. usage report, financial monitoring (cost saving) etc
Baseline Measure	Baseline from which to assess and measure performance. Informs improved future estimating accuracy.
Target	Baseline from which to assess and measure performance. If the baseline measure is a percentage, the target should be a percentage, if target a raw number – baseline should be a raw number too. Provides the project with the measure of success.
Date Measurement Starts	Date from which to start tracking the measure e.g. post implementation/launch.
Measurement Reporting	The frequency for measuring the benefit e.g. if financial may want to measure quarterly, if the benefits related to a decrease in complaints then the project may want to measure this benefit monthly.
Benefit Owner	Responsible for the realisation of the benefit and providing supporting info e.g. reports to measure the benefit. Owners are in a position to control.
Current Status	Benefits updates at a glance, well presented tracking data makes it easy to see how effectively benefits are being managed and encourages continuous improvement.

7.8 Stakeholders and Communications

The communications approach outlined is the responsibility of the Project Communications and Marketing team within Derby City Council. A Communications Plan for the project is being developed as a live document (Appendix A6 provides an early outline). This identifies key internal and external project stakeholders and outlines the plan to communicate with these key audiences. A full action tracker is also kept up-to-date to log all communication activities.

A range of communication channels are planned to be utilised, including:

- Digital – Website updates, stakeholder emails, social media;
- Print – Flyers, mail drops;
- Misc – Drop-in sessions and other stakeholder engagement events; and
- Local media – Managed through the Derby City Council Press Office team.

The responsibilities and process for sign-off of external communication activities:

1. The Project Manager with responsibility for the project will fact-check and approve material.
2. The SRO will sign-off communication material, unless it is a significant or sensitive issue.
3. Where communications are significant or sensitive the SRO will consult the Cabinet Member with responsibility for Climate Change, Transport and Sustainability before issuing communications.

Audiences have already been engaged as part of the development of the medium-term solution and continue to be part of the business case preparation. As part of SOBC development and options assessment work, an online workshop was held with key external stakeholder organisations. This helped to inform the challenges and opportunities in the area and engage multidisciplinary teams including emergency services, heritage and environmental teams as well as local decision makers. Council teams have also reached out to local businesses, particularly those within the Darley Abbey Mills complex.

Key future activities will be planned in line with key milestones on the project are targeted to interested audiences. Consideration will be given to achieve a balance of keeping people well-informed of progress while not over burdening people and causing consultation fatigue.

A1 Options Assessment Report

A2 Risk Register

A3 Arcadis Engineering Option Report

A4 Project Timeline

A5 Change Control Process

A6 Draft Communication Plan