

Feasibility Report

Otley Bridge

SCAPE CIVIL ENGINEERING

Leeds CITY COUNCIL

Balfour Beatty

Document Status

Rev No	Prepared By	Reviewed By	Approved By	Status	Date
0	[redacted]			First Issue	20-12-23

Balfour Beatty Approval to Submit:

Name: [redacted]

Signature: [redacted]

Position: Project Manager

Date: 20/12/2023

For Client's Approval:

Name: _____

Signature: _____

Position: _____

Date: _____/_____/_____

Contents

1. Executive Summary 5
1.1. Project Background 5
1.2. Benefits 5
1.3. Main Findings 5
2. Purpose of the Report 9
3. Client Brief 10
4. Design 12
4.1. Overview of Current Design 12
4.2. Procurement of Designers 13
4.3. Works Information & Site Information 13
4.4. Design Consultation 13
4.5. Design Proposal 14
4.6. Design Risks / Opportunities 14
5. Project Delivery 15
5.1. Project Team 15
5.2. Roles and Responsibilities 15
5.3. Pre-construction (ECI) Methodology 15
5.4. Construction Methodology 16
5.5. Stakeholder Management 22
5.6. Customer Experience 22
6. Programme 23
7. Commercial 24
7.1. Feasibility Budget 24
7.2. Opportunities, Risk and Value Engineering 34
7.3. Value for Money 35
7.4. Supply Chain Analysis and Strategy 35
8. Performance Management 36
9. Social Value 38
10. Next Steps 39

11. Appendices 40

1. Executive Summary

1.1. Project Background

Otley Bridge is a Scheduled Ancient Monument. It is also the focal point of the Riverside area of the Otley Conservation Area. Otley Bridge carries the B6451 over the River Wharfe and links the two halves of Otley Town. The next river crossing is over two miles away at Pool to the east or over five miles to the west at Ilkley. The eastern part dates back to 1228, when the Archbishop of York, titular Lord of the Manor of Otley, had it built to provide a more direct route to York. It was substantially rebuilt, including widening on the western side, in 1775-6, planned and overseen by John Gott, subsequently Surveyor of Bridges for the West Riding of Yorkshire.

Growth of traffic in the twentieth century and demands for a safe pedestrian crossing resulted in the addition of a cantilevered pedestrian walkway on the western side in 1957. This cantilevered pedestrian walkway is now inadequate for several reasons:

- The structure has a limited live load capacity of 1.05kN/m2
- The existing concrete deck planks are failing in places, with short term remedial works having been undertaken in 2023 to keep the structure operational
- The parapet height is substandard

Leeds City Council have commissioned Balfour Beatty to undertake a feasibility study which will investigate a range of design and construction solutions which could be implemented on the cantilever walkway structure to ensure its continued safe operation well into the future.

The scope of this feasibility is limited to the cantilevered walkway structure only as there are no significant issues of concern on the adjacent masonry arch structure. This feasibility study is being completed between October and December 2023.

1.2. Benefits

The main benefit of engaging with Balfour Beatty is due to us having completed many similar projects of this type. Therefore, the combined expertise provided by our design partner WSP and various specialist supply chain partners have allowed us to undertake an accurate feasibility study with limited information.

This will enable Leeds City Council to make an informed decision on the design and construction solution that best suits their needs. The intention is that following review of this feasibility study in early 2024:

- Leeds City Council can make an informed decision on the solution to be progressed into detailed design and construction
- Leeds City Council can secure funding for the selected design and construction solution
- Discussions can commence with the many stakeholders which will be involved in this project at the earliest possible opportunity

1.3. Main Findings

The summary of the three design and construction options are highlighted in the table below together with summary detail regarding their anticipated cost, construction duration and several other factors

which will be important considerations during the option selection process. The full detail of the information contained in this table is shown in the main body of the report.

Option	Option 1a – Minor refurbishment of cantilevered walkway deck only	Option 2a – Major refurbishment of cantilevered walkway structure	Option 3a – Demolish the cantilevered walkway structure and replace with a new structure (with the cantilevers remaining)	Installing a temporary river crossing during the works (option b or c)
Anticipated budget cost	£1.3m	£1.6m	£2.0m	Varies depending on the type of river crossing, see section 7
Anticipated construction duration	19 weeks	23 weeks	12 weeks	Varies depending on the type of river crossing, see section 7
Likely disruption to motorists	Permanent two way temporary traffic signals with a single running lane for the duration of the works . Pedestrians diverted into the other running lane. Some full night time road closures required throughout the programme.	Permanent two way temporary traffic signals with a single running lane for the duration of the works . Pedestrians diverted into the other running lane. Some full night time road closures required throughout the programme.	Permanent two way temporary traffic signals with a single running lane for the duration of the works . Pedestrians diverted into the other running lane. Some full night time road closures required throughout the programme.	Option b) Zero traffic disruption during the works. Option c) Zero traffic disruption during the works unless a flood event occurs, in which case option a) would be established in the short term until the floodwater recedes. Some full night time road closures required throughout the programme.
Likely disruption to pedestrians	Minimal, minor diversion from the pedestrian walkway and onto the highway	Minimal, minor diversion from the pedestrian walkway and onto the highway	Minimal, minor diversion from the pedestrian walkway and onto the highway	Minimal, minor diversion from the pedestrian walkway and onto a temporary footbridge
Likely effect on ecology	Minor-Medium	Minor-Medium	Minor-Medium	Minor

Likely effect on the watercourse	Minor-Medium, floating pontoon required in river	Minor-Medium, floating pontoon required in river	Minor-Medium, floating pontoon required in river	Option b) No effect Option c) Minor-Medium, floating bridge required in river
Likely design life of the structure after the works have been completed	10 years	30 years	120 years	No effect
Likely load carrying capacity of the cantilevered walkway structure after the works have been completed	An improvement on the current assessment (as replacing concrete deck panels with a lighter weight material) but it will likely not be to standard due to the critical structural members being the cantilevers, this will be confirmed during detailed design	An improvement on the current assessment (as replacing concrete deck panels with a lighter weight material) but it will likely not be to standard due to the critical structural members being the cantilevers, this will be confirmed during detailed design	An improvement on the current assessment (as replacing the structure with a new lighter structure) but it will likely not be to standard due to the critical structural members being the cantilevers, this will be confirmed during detailed design	No effect
Likely future maintenance requirements for the cantilevered walkway structure after the works have been completed	High	Medium	Low	No effect
Likely site compound required	An area of land circa 50m x 50m	An area of land circa 50m x 50m	An area of land circa 50m x 50m	An additional landing area required at either side of the river Wharfe
Likely consents required	EA permit Heritage consent Permitted development consent (due to the conservation area) Natural England bat license Traffic management permits	EA permit Heritage consent Permitted development consent (due to the conservation area) Natural England bat license Traffic management permits	EA permit Heritage consent Permitted development consent (due to the conservation area) Natural England bat license Traffic management permits	Land access
Effect on statutory utilities	None	BT and Northern Power Grid local temporary diversion required	BT and Northern Power Grid local temporary diversion required	No effect

Likely carbon footprint of proposed works	TBC	TBC	TBC	TBC following traffic modelling

2. Purpose of the Report

Otley Bridge is a Scheduled Ancient Monument. It is also the focal point of the Riverside area of the Otley Conservation Area. Otley Bridge carries the B6451 over the River Wharfe and links the two halves of Otley Town. The next river crossing is over two miles away at Pool to the east or over five miles to the west at Ilkley. The eastern part dates back to 1228, when the Archbishop of York, titular Lord of the Manor of Otley, had it built to provide a more direct route to York. It was substantially rebuilt, including widening on the western side, in 1775-6, planned and overseen by John Gott, subsequently Surveyor of Bridges for the West Riding of Yorkshire.

Growth of traffic in the twentieth century and demands for a safe pedestrian crossing resulted in the addition of a cantilevered pedestrian walkway on the western side in 1957. This cantilevered pedestrian walkway is now inadequate for several reasons:

- The structure has a limited live load capacity of 1.05kN/m2
- The existing concrete deck planks are failing in places, with short term remedial works having being undertaken in 2023 to keep the structure operational
- The parapet height is substandard

Leeds City Council have commissioned Balfour Beatty through the Scape framework to undertake a feasibility study which will investigate a range of design and construction solutions which could be implemented on the cantilever walkway structure to ensure its continued safe operation well into the future.

The scope of this feasibility is limited to the cantilevered walkway structure only as there are no significant issues of concern on the adjacent masonry arch structure. This feasibility study is being completed between October and December 2023.

The purpose of this report is therefore to allow Balfour Beatty to provide expert design and construction advice to our customer Leeds City Council using our in-house expertise after having completed many similar projects of this type. This advice will enable Leeds City Council to make an informed decision on the design and construction solution that best suits their needs. Balfour Beatty have also engaged external expertise from our proposed design partner WSP and various other expert specialist supply chain partners. This combined advice has allowed us to undertake this comprehensive feasibility study.

The intention is that following review of this feasibility study, in early 2024:

- Leeds City Council can make an informed decision on the solution to be progressed into detailed design and construction
- Leeds City Council can secure funding for the selected design and construction solution
- Discussions can commence with the many stakeholders which will be involved in this project at the earliest possible opportunity

3. Client Brief

A client brief document dated 22nd November 2023 was issued 4th December 2023 which defined the parameters of this feasibility study. Please refer to this document for the full detail of the brief but the main summary of the brief requirements are as follows:

- Leeds City Council highlighted the recent defects observed in the Otley Bridge cantilevered walkway structure during a special inspection in July 2023
- Following the special inspection Leeds City Council have requested that Balfour Beatty investigate the feasibility of various options including:
    - Strengthening of the existing cantilevered walkway structure
    - A refurbishment of the existing cantilevered walkway structure
    - A replacement of the existing cantilevered walkway structure
- The bridge is a scheduled ancient monument, reference number AM 0121
- The feasibility budget is [redacted]
- Feasibility to be completed by 31st December 2023
- A feasibility report is required which shall consider the following:
    - Repairs to the existing cantilever including replacement of components on a like for like basis
    - Repairs to the existing cantilever including replacement of components with alternative components
    - Works to increase the live load capacity of the existing cantilever walkway structure
    - Works to provide full live load capacity for the cantilever walkway structure
    - Replacement of the full cantilever walkway structure
    - Alternative crossing options to replace the cantilever walkway structure
    - Options for the cantilever walkway parapet handrail replacement
- For each of the above options please consider cost, duration, traffic management, disruption, size and location of site compound, permit requirements, design life, load capacity and future maintenance requirements
- The project constraints will be:
    - An environmental permit will be required from the Environment Agency
    - Traffic management
    - Statutory Undertakers apparatus
    - Heritage consent (due to the structure being a scheduled ancient monument)
    - The site is within a conservation area
    - Ecology (the structure is a bat roosting area)
    - Local elections in 2024
    - Asbestos

- The current structure is substandard

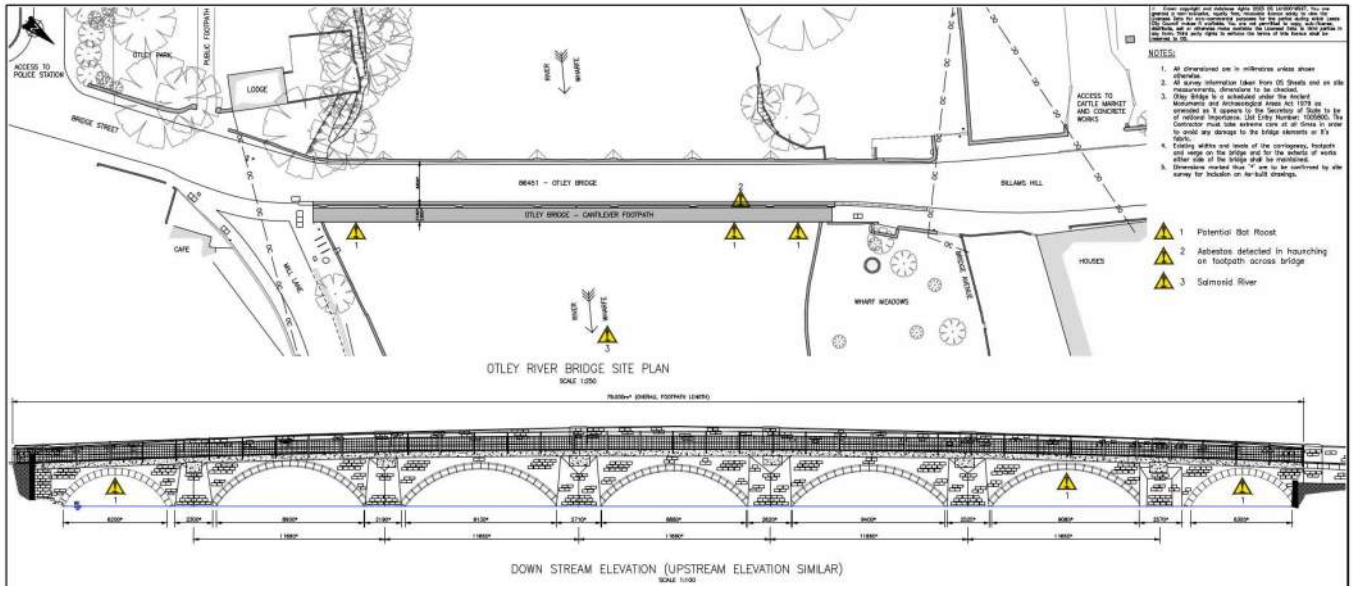
- CDM requirements are:
  - Client – Leeds City Council
  - Principal Contractor – Balfour Beatty
  - Principal Designer – Balfour Beatty
  - Designers - TBC

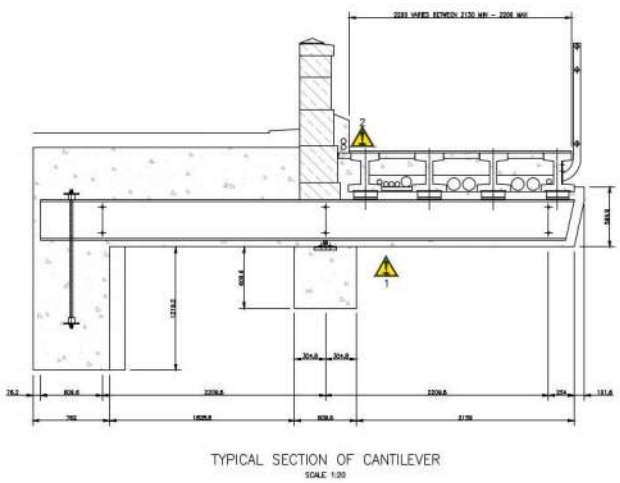
4. Design

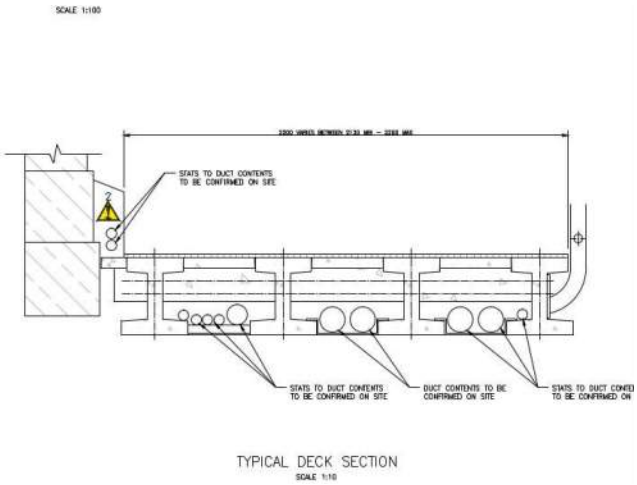
4.1. Overview of Current Design

At present no design work has been undertaken on the project, although Leeds City Council have proposed that they would like the project to be a design and build contract, with consultant WSP providing design services, working for Balfour Beatty.

Some drawings of the existing cantilever walkway structure have been created by Leeds City Council, which are based on the historical drawings. The purpose of these drawings is to provide as much clarity as possible to Leeds City Council and Balfour Beatty with regards to the makeup of the existing structure. Two examples of these drawings are shown below:







4.2. Procurement of Designers

The intention is that should this project progress into detailed design that Balfour Beatty will procure WSP as the scheme permanent works designer under a design and build arrangement. The exact contract particulars of this procurement are still to be confirmed.

4.3. Works Information & Site Information

The documentation issued by Leeds City Council, upon which this feasibility study is based, are as follows:

- Drawing 300000-LCC-SBR-L00090-DR-CB-01_001
- Drawing 300000-LCC-SBR-L00090-DR-CB-17_001
- Drawing 300000-LCC-SBR-L00090-DR-CB-17_002
- Drawing 300000-LCC-SBR-L00090-DR-CB-17_003
- Drawing 300000-LCC-SBR-L00090-DR-CB-17_004
- Drawing 300000-LCC-SBR-L00090-DR-CB-17_005
- Drawing 300000-LCC-SBR-L00090-DR-CB-17_006
- Drawing 300000-LCC-SBR-L00090-DR-CB-17_007
- Drawing 300000-LCC-SBR-L00090-DR-CB-26_001
- Drawing 300000-LCC-SBR-L00090-DR-CB-27_001
- L90 Deck Replacement 2023-2024 Specification Rev 09 App 57
- L90-1956-07-Cantilever Footpath-GA-B229-1A
- L90-2007-10 Conservation Management Plan
- L90-2013-10 Assessment Summary Report Version 3.1
- L90-2014-02 Asbestos Management Survey
- L90-2017-10 Eco Site Supervision Report
- P1364-Leeds City Council-Otley Bridge Principal Inspection Report July 2023

4.4. Design Consultation

At present WSP have been presented with the details contained within the client brief as documented in section 3 of this report. WSP have assessed the likely design input which will be required if the decision is made to either strengthen, refurbish or replace Otley Bridge pedestrian walkway. WSP have provided some budget costs for these design services which have been incorporated within our budget cost for the overall scheme. WSP have expressed a keen interest to work on this project and the staff they are

proposing to utilise on the project, if it goes ahead, all staff are well known to Leeds City Council and Balfour Beatty.

4.5. Design Proposal

The detailed design proposals are to be developed if and when the project moves into the detailed design period.

4.6. Design Risks / Opportunities

Scope of design

The scope and cost of the design services varies considerably depending on the nature of the option selected. For example a refurbishment option will have a low design cost but will not achieve any betterment of the structure in terms of its structural capacity. A replacement option however will have a higher design cost but will be able to explore the possibility of improving the structures adherence to the latest design standards.

A key weakness in the structure, and concern of Leeds City Council, is due to the cantilever supports only being assessed as suitable to accommodate a pedestrian live load on the cantilever walkway structure of 1.05kN/m^2. The current standard is 5.0kN/m^2. Refurbishing the existing structure would not significantly alter this assessment however a full replacement with a new lighter cantilever walkway structure would likely improve this assessment. WSP have however advised that it's highly probable that replacing the structure alone would not ensure it met the current standard for live loading. If the option to replace the cantilevered walkway is selected, WSP have advised that it would make sense to carry out some intrusive investigation works (after the structure is demolished but prior to the new structure being installed) to determine the detail of the cantilever beams, the anchor ties and the material holding them in place within the masonry arch structure, so that a more accurate, less conservative assessment of the cantilever beams can be undertaken, in conjunction with some strengthening works within the masonry arch structure if required. This will then likely ensure the replacement structure meets modern design standards, however this could not be confirmed with certainty until the investigation, assessment and strengthening works are completed.

As the scope of the design services will have a significant impact upon the project, its design life and its future assessment and maintenance requirements, we recommend that a separate design workshop is held with Balfour Beatty, Leeds City Council and WSP in attendance to determine the correct design solution before the project proceeds into detailed design.

Statutory Undertakers Apparatus

It is known that electrical services (operated by Northern Power Grid) and telecoms services (operated by Openreach) are located within the cantilever walkway structure. If an option is selected over and above the minor maintenance option, the designers (permanent and temporary works) will have to ensure their designs accommodate these services.

5. Project Delivery

5.1. Project Team

The Balfour Beatty project team throughout this feasibility period has been:

Project Manager – [redacted]

Managing Quantity Surveyor – [redacted]

Planning Manager – [redacted]

5.2. Roles and Responsibilities

Health and Safety Support – [redacted]

Environmental and Sustainability Support – [redacted]

Support with Bats – [redacted]

Communication Support – [redacted]

Social Value Support – [redacted]

Traffic Management Support – [redacted]

5.3. Pre-construction (ECI) Methodology

There will be a significant number of tasks to complete during the pre-construction period. Our intention would be that if the project proceeds into the ECI stage then Balfour Beatty and Leeds City Council will work collaboratively together to successfully complete these tasks with the responsibility for each activity being determined in due course. These tasks include but are not limited to:

- Undertaking detailed design
- Applying for an Environment Agency be-spoke permit
- Applying for heritage consent
- Applying for permitted development consent

- Completing ecological surveys
- Obtaining a bat license if required
- Liaising and coordinating with statutory undertakers regarding diversions, most notably with Openreach and Northern Power Grid
- Compiling a stakeholder management plan and implementing it
- Compiling temporary traffic regulation orders
- Detailed pricing of the scheme
- Detailed programming of the scheme
- Negotiating the contractual arrangements between Leeds City Council and Balfour Beatty for the construction works

5.4. Construction Methodology

Further to the project brief issued by Leeds City Council and outlined in section 3 of this report, Balfour Beatty have based this feasibility study on three different construction solutions as follows:

Option 1 – Minor refurbishment of cantilevered walkway deck only. The scope of work we have based our feasibility price and programme on is as follows:

- Minor detailed design
- Remove existing deck and concrete planks
- Refurbish top of pre-stressed concrete beams
- Replace deck with fibre reinforced plastic (or similar) deck
- Pontoon in river for access and for capturing debris
- Traffic management
- Refurbishment of existing parapet including raising height
- Park reinstatement
- Management staff during the ECI period
- On site management staff and site preliminary costs during the construction works

Option 2 – Major refurbishment of cantilevered walkway structure. The scope of work we have based our feasibility price and programme on is as follows:

- Detailed design
- Remove existing deck and concrete planks

- Refurbish pre-stressed concrete beams and diaphragms
- Concrete repairs to cantilever beams
- Replace statutory undertakers ducting
- Waterproofing to deck (including joints)
- Replace deck with fibre reinforced plastic (or similar) deck
- Pontoon in river for access and for capturing debris
- Traffic management
- Refurbishment of existing parapet including raising height
- Park reinstatement
- Management staff during the ECI period
- On site management staff and site preliminary costs during the construction works

Option 3 – Demolish the cantilevered walkway structure and replace with a new structure (with the cantilevers remaining in place). The scope of work we have based our feasibility price and programme on is as follows:

- Detailed design
- Remove existing cantilever walkway structure down to cantilever beams (2 possible methods)
- Remove concrete surround to cantilevers and refurbish steelwork
- Fabricate off site new structural steelwork, deliver to site and install seven new spans including new steel parapet using a mobile crane
- Replace statutory undertakers ducting
- Waterproofing to deck (including joints)
- Install new bridge deck
- Pontoon in river for access and for capturing debris
- Traffic management
- Park reinstatement / Crane Platform
- Management staff during the ECI period
- On site management staff and site preliminary costs during the construction works

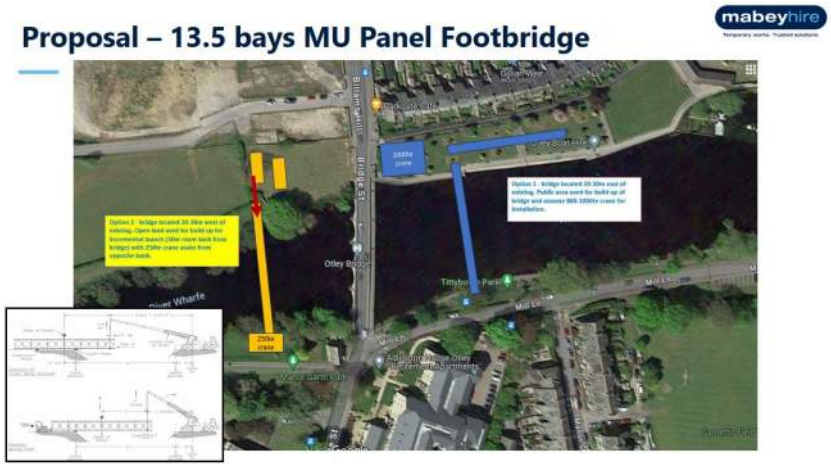
Then for each of the above options Balfour Beatty have explored a temporary alternative river crossing facility to ensure pedestrian access is maintained on site throughout the works. These three options are:

Option a – Divert the pedestrian onto the southbound lane of the B6451 highway. This would involve installing some pedestrian barrier fencing on the highway above the masonry arch structure and restricting the flow of traffic using two way traffic signals for the full duration of the project. An example of this arrangement is shown below:



This option would cause minimal disruption for pedestrians but major disruption for motorists.

Option b – Construct a temporary footbridge to either the east or west side of the existing structure and divert the pedestrians onto it for the full duration of the project. This temporary structure would sit above the river and would be installed by either launching or lifting using a heavy crane. This structure would require significant temporary works (bridge abutments, crane platforms, stone platforms, temporary ramps etc.) The structure would be fully Equalities Act compliant. An example of this arrangement is shown below together with a photograph from where a similar structure has been deployed, at Tadcaster bridge in 2016:

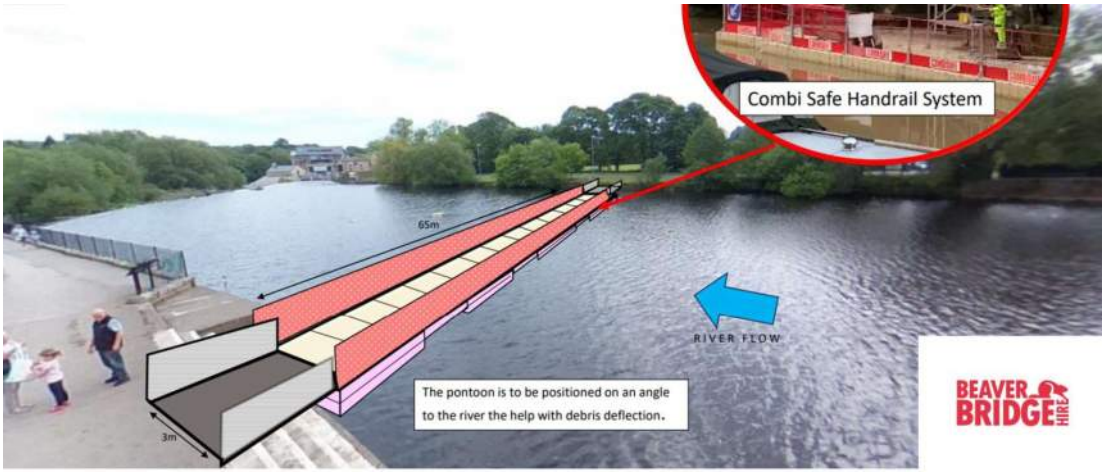






This option would cause minor disruption for pedestrians and zero disruption for motorists.

Option c – Construct a temporary floating footbridge to the east side of the existing structure and divert the pedestrians onto it for the full duration of the project. This temporary structure would sit on the water and would rise up and down in line with current water levels. In a large flood event, the floating structure would have to be dismantled for safety reasons. In this situation we would look to implement option a for the short duration during which the floating bridge would be out of action. The structure would be installed by launching at the side of the river bank. The structure would be fully Equalities Act compliant. An example of this arrangement is shown below together with two photographs from where a similar structure has been deployed at the Bedford river festival in 2018:


Combi Safe Handrail System
65m
RIVER FLOW
The pontoon is to be positioned on an angle to the river the help with debris deflection.
3m
BEAVER BRIDGE HIRE




EAGLE
EAGLE
DAN MEDIA

This option would cause minor disruption for pedestrians and minor disruption for motorists (disruption only experienced during a flood event).

The estimated cost of the three construction solutions together with the costs of providing the three different alternative river crossing solutions is detailed in section 7.

5.5. Stakeholder Management

As mentioned in section 5.3, undertaking comprehensive and well-planned stakeholder management is essential for the success of this scheme. A stakeholder management plan will be created for the project and it will be implemented throughout the ECI and construction phase. Examples of the stakeholders which will form part of this scheme are:

- Environment Agency
- Statutory undertakers (most notably Openreach and Northern Power Grid)
- Natural England
- Heritage
- Otley Town Council
- Leeds City Council TAA
- Leeds City Council planning
- Leeds City Council network management
- Leeds City Council parks and countryside
- Private landowners
- Sailing club
- Local businesses
- Local residents
- Other community groups with a special interest in the scheme

5.6. Customer Experience

At the end of the pre-construction (ECI) phase a customer satisfaction review will be undertaken. A further review will be undertaken at the end of the construction phase. This will allow valuable feedback to be provided to Balfour Beatty regarding the teams performance.

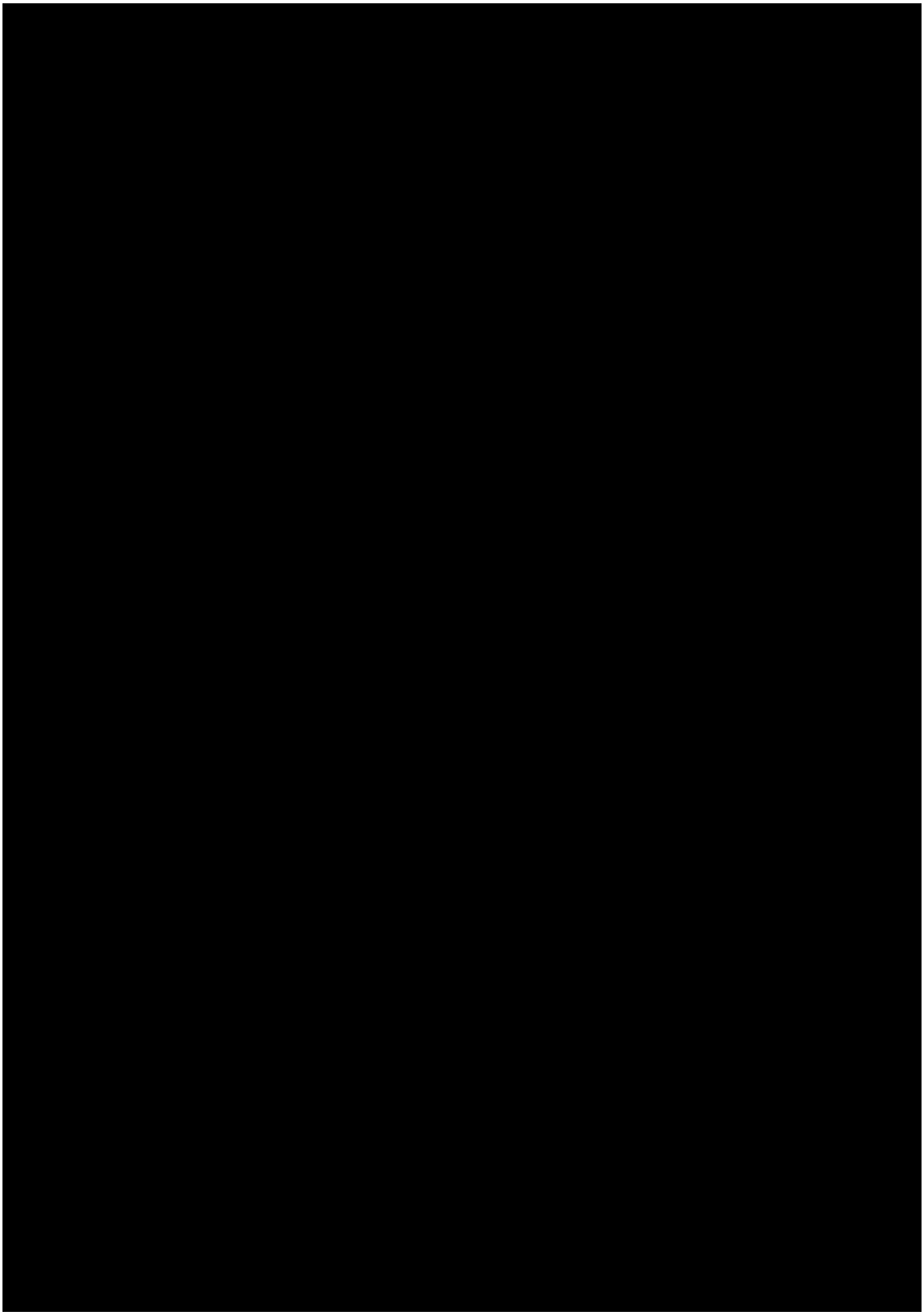
6. Programme

Construction programmes have been compiled based on each of the three construction options described in section 5.4. Each of the three options has then been further broken down depending on the alternative river crossing solution to safely accommodate the pedestrians. The full programmes are listed in appendix A and a summary table is detailed below:

			Starting Date	Access Date	Planned Completion Date	On Site Duration (Weeks)
						Access Date to PCD
Option 1A	Minor Refurbishment Works	Single Lane Running on Ex Bridge	15/01/2024	12/06/2024	17/10/2024	19
Option 1B	Minor Refurbishment Works	Temporary Footbridge	15/01/2024	12/06/2024	20/01/2025	32
Option 1C	Minor Refurbishment Works	Floating Pedestrian Bridge	15/01/2024	12/06/2024	14/11/2024	23
Option 2A	Full Refurbishment Works	Single Lane Running on Ex Bridge	15/01/2024	12/06/2024	14/11/2024	23
Option 2B	Full Refurbishment Works	Temporary Footbridge	15/01/2024	12/06/2024	18/02/2025	36
Option 2C	Full Refurbishment Works	Floating Pedestrian Bridge	15/01/2024	12/06/2024	20/12/2024	28
Option 3A	Full Replacement Footbridge	Single Lane Running on Ex Bridge	15/01/2024	15/07/2024	07/10/2024	12
Option 3B	Full Replacement Footbridge	Temporary Footbridge	15/01/2024	25/06/2024	04/12/2024	24
Option 3C	Full Replacement Footbridge	Floating Pedestrian Bridge	15/01/2024	24/06/2024	24/10/2024	18

7. Commercial

7.1. Feasibility Budget



A summary of the prices has been included below:

	Option 1: Minor Refurbishment Works	Option 2: Full Refurbishment Works	Option 3: Full Replacement
Option A: Lane Closures	£1,337,242	£1,601,143	£2,060,678
Option B: Temporary Bridge	£2,491,032	£2,795,063	£3,088,405
Option C: Temporary Floating Bridge	£1,735,512	£2,056,060	£2,462,629

- Between Option 1A and Option 3A, there is an uplift of circa £700k
- To include for the temporary footbridge, an average additional budget of circa £1.1m would be required (from Option A – Option B)

- To include for the temporary floating bridge, an average additional budget of circa £400k would be required (from Option A – Option C)
- A breakdown of the above budgets has been included on the following pages.

Otley Bridge
Option 1a
Minor Refurbishment Works
Single Lane Running on Ex Bridge

Contractors Preliminaries	[redacted]	
Staff - ECI Period		As per staff buildup - "Design Management"
Staff		As per staff buildup - "Option 1"
Prelims		As per prelims buildup - "Option 1"
Measured Works		
Design		WSP Budget
Remove existing deck and concrete planks.		Self Delivery - Buildup sheet 1a
Refurbish top of PCC Beams (Concrete repairs)		Balvac budget
Waterproofing to deck (including joints)		Waterseal budget
Replace deck with Fibre Reinforced Plastic Deck (or similar).		EMJ price - Regent Street
Pontoon working area and debris catchment in river.		Land and Water Budget Quote
Traffic Management		Based on Premier Traffic Management - Marsh Lane quote
Refurbish Existing Parapet		Protek Budget
Park Reinstatement		Lump sum - to reinstate used park land
Inflation based at 5%		
Contractors Risk (5%)		
Sub-total		
Optimisim Bias (30%)		
Sub-total		
Scape Fee (5.95%)		
Construction Total	**1,337,242**	

Otley Bridge
Option 1b
Minor Refurbishment Works
Temporary Footbridge

Contractors Preliminaries	[redacted]	
Staff - ECI Period		As per staff buildup - "Design Management"
Staff		As per staff buildup - "Option 1a"
Prelims		As per prelims buildup - "Option 1a"
Measured Works		
Design		WSP Budget
Remove existing deck and concrete planks.		Self Delivery - Buildup sheet 1a
Refurbish top of PCC Beams (Concrete repairs)		Balvac Budget
Waterproofing to deck (including joints)		Waterseal budget
Replace deck with Fibre Reinforced Plastic Deck (or similar).		EMJ price - Regent Street
Pontoon working area and debris catchment in river.		Land and Water Budget Quote
Traffic Management		Based on Premier Traffic Management - Marsh Lane quote
Refurbish Existing Parapet		Protek Budget
Park Reinstatement		Lump sum - to reinstate used park land
Temporary Bridge		
Temporary Bridge - Access		Plug - temporary Access
Inflation based at 5%		
Contractors Risk (5%)		
Sub-total		
Optimisim Bias (30%)		
Sub-total		
Scape Fee (5.95%)		
Construction Total	**2,491,032**	

Otley Bridge
Option 1c
Minor Refurbishment Works
Floating Pedestrian Bridge

Contractors Preliminaries		
Staff - ECI Period	[redacted]	As per staff buildup - "Design Management"
Staff		As per staff buildup - "Option 1a"
Prelims		As per prelims buildup - "Option 1a"
Measured Works		
Design		WSP Budget
Remove existing deck and concrete planks.		Self Delivery - Buildup sheet 1a
Refurbish top of PCC Beams (Concrete repairs)		Balvac Budget
Waterproofing to deck (including joints)		Waterseal budget
Replace deck with Fibre Reinforced Plastic Deck (or similar).		EMJ price - Regent Street
Pontoon working area and debris catchment in river.		Land and Water Budget Quote
Traffic Management		Based on Premier Traffic Management - Marsh Lane quote
Refurbish Existing Parapet		Protek Budget
Park Reinstatement		Lump sum - to reinstate used park land
Temporary Bridge		
Inflation based at 5%		
Contractors Risk (5%)		
Sub-total		
Optimisim Bias (30%)		
Sub-total		
Scape Fee (5.95%)		
Construction Total	**1,735,512**	

Otley Bridge
Option 2a
Full Refurbishment Works
Single Lane Running on Ex Bridge

Contractors Preliminaries		
Staff - ECI Period	[redacted]	As per staff buildup - "Design Management"
Staff		As per staff buildup - "Option 2"
Prelims		As per prelims buildup - "Option 2"
Measured Works		
Design		WSP Budget
Remove existing deck and concrete planks.		Self Delivery - Buildup sheet 1a
Refurbish PCC Planks Beams and diaphragms		Balvac Budget
Concrete Repairs to the Cantilevers		inc above
Replace stats ductwork		Buildup 2a
Waterproofing to deck (including joints)		Waterseal budget
Reconstruct deck using FRP		EMJ price - Regent Street
Pontoon working area and debris catchment in river.		Land and Water Budget Quote
Traffic Management		Based on Premier Traffic Management - Marsh Lane quote
Refurbish Existing Parapet		Protek Budget
Park Reinstatement		Lump sum - to reinstate used park land
Inflation based at 5%		
Contractors Risk (5%)		
Sub-total		
Optimisim Bias (30%)		
Sub-total		
Scape Fee (5.95%)		
Construction Total	**1,601,143**	

Otley Bridge
Option 2b
Full Refurbishment Works
Temporary Footbridge

Contractors Preliminaries	[redacted]	
Staff - ECI Period		As per staff buildup - "Design Management"
Staff		As per staff buildup - "Option 2"
Prelims		As per prelims buildup - "Option 2"
Measured Works		
Design		WSP Budget
Remove existing deck and concrete planks.		Self Delivery - Buildup sheet 1a
Refurbish PCC Planks Beams and diaphragms		Balvac Budget
Concrete Repairs to the Cantilevers		Included above
Replace stats ductwork		Buildup 2a
Waterproofing to deck (including joints)		Waterseal budget
Reconstruct deck using FRP		EMJ price - Regent Street
Pontoon working area and debris catchment in river.		Land and Water Budget Quote
Traffic Management		Based on Premier Traffic Management - Marsh Lane quote
Refurbish Existing Parapet		Protek Budget
Park Reinstatement		Lump sum - to reinstate used park land
Temporary Bridge		
Temporary Bridge - Access		Plug - temporary Access
Inflation based at 5%		
Contractors Risk (5%)		
Sub-total		
Optimisim Bias (30%)		
Sub-total		
Scape Fee (5.95%)		
Construction Total	**2,795,063**	

Otley Bridge
Option 2c
Full Refurbishment Works
Floating Pedestrian Bridge

Contractors Preliminaries		
Staff - ECI Period	[redacted]	As per staff buildup - "Design Management"
Staff		As per staff buildup - "Option 2"
Prelims		As per prelims buildup - "Option 2"
Measured Works		
Design		WSP budget
Remove existing deck and concrete planks.		Self Delivery - Buildup sheet 1a
Refurbish PCC Planks Beams and diaphragms		Balvac Budget
Concrete Repairs to the Cantilevers		Included above
Replace stats ductwork		Buildup 2a
Waterproofing to deck (including joints)		Waterseal budget
Reconstruct deck using FRP		EMJ price - Regent Street
Pontoon working area and debris catchment in river.		Land and Water Budget Quote
Traffic Management		Based on Premier Traffic Management - Marsh Lane quote
Refurbish Existing Parapet		Protek Budget
Park Reinstatement		Lump sum - to reinstate used park land
Temporary Bridge		
Inflation based at 5%		
Contractors Risk (5%)		
Sub-total		
Optimisim Bias (30%)		
Sub-total		
Scape Fee (5.95%)		
Construction Total	**2,056,060**	

Otley Bridge
Option 3a
Full Replacement Footbridge
Single Lane Running on Ex Bridge

Contractors Preliminaries	[redacted]	
Staff - ECI Period		As per staff buildup - "Design Management"
Staff		As per staff buildup - "Option 3"
Prelims		As per prelims buildup - "Option 3"
Measured Works		
Design		WSP Budget
Remove ALL footbridge down to cantilever steelwork.		Sam Evans Budget Quote - "option 2 - Pontoon"
Remove Concrete surround and refurbish existing steel beams to cantilevers.		E/O Sam Evans
Replace PCC beams with structural steel beams		inc in SH Structures budget
Prefabricate Steel Bridge in 7 no spans off site and lift into place. (Parapet included)		SH Structures Budget Quote
Install New Service Ducts		Buildup 2a
Waterproofing to deck (including joints)		inc in SH Structures budget
Install new deck		inc in SH Structures budget
Pontoon working area and debris catchment in river.		Land and Water Budget
Traffic Management		Based on Premier Traffic Management - Marsh Lane quote
New Parapet		Inc in SH Structures budget
Park Reinstatement / Crane Platform		Lump sum - to reinstate used park land/ install and remove crane temp works
Inflation based at 5%		
Contractors Risk (5%)		
Sub-total		
Optimisim Bias (30%)		
Sub-total		
Scape Fee (5.95%)		
Construction Total	**2,060,678**	

Otley Bridge
Option 3b
Full Replacement Footbridge
Temporary Footbridge

Contractors Preliminaries		
Staff - ECI Period	[redacted]	As per staff buildup - "Design Management"
Staff		As per staff buildup - "Option 3"
Prelims		As per prelims buildup - "Option 3"
Measured Works		
Design		WSP Budget
Remove ALL footbridge down to cantilever steelwork.		Sam Evans Budget Quote - "option 2 - Pontoon"
Remove Concrete surround and refurbish existing steel beams to cantilevers.		E/O Sam Evans
Replace PCC beams with structural steel beams		inc in SH Structures budget
Prefabricate Steel Bridge in 7 no spans off site and lift into place. (Parapet included)		SH Structures Budget Quote
Install New Service Ducts		Buildup 2a
Waterproofing to deck (including joints)		inc in SH Structures budget
Install new deck		inc in SH Structures budget
Pontoon working area and debris catchment in river.		Land and Water Budget
Traffic Management		Based on Premier Traffic Management - Marsh Lane quote
New Parapet		Inc in SH Structures budget
Park Reinstatement / Crane Platform		Lump sum - to reinstate used park land/ install and remove crane temp works
Temporary Bridge		
Temporary Bridge - Access		Plug - temporary Access
Inflation based at 5%		
Contractors Risk (5%)		
Sub-total		
Optimisim Bias (30%)		
Sub-total		
Scape Fee (5.95%)		
Construction Total	**3,088,405**	

Otley Bridge
Option 3c
Full Replacement Footbridge
Temporary Footbridge

Contractors Preliminaries		
Staff - ECI Period	[redacted]	As per staff buildup - "Design Management"
Staff		As per staff buildup - "Option 3"
Prelims		As per prelims buildup - "Option 3"
Measured Works		
Design		WSP Budget
Remove ALL footbridge down to cantilever steelwork.		Sam Evans Budget Quote - "option 2 - Pontoon"
Remove Concrete surround and refurbish existing steel beams to cantilevers.		E/O Sam Evans
Replace PCC beams with structural steel beams		inc in SH Structures budget
Prefabricate Steel Bridge in 7 no spans off site and lift into place. (Parapet included)		SH Structures Budget Quote
Install New Service Ducts		Buildup 2a
Waterproofing to deck (including joints)		inc in SH Structures budget
Install new deck		inc in SH Structures budget
Pontoon working area and debris catchment in river.		Land and Water Budget
Traffic Management		Based on Premier Traffic Management - March Lane quote
New Parapet		Inc in SH Structures budget
Park Reinstatement / Crane Platform		Lump sum - to reinstate used park land/ install and remove crane temp works
Temporary Bridge		
Inflation based at 5%		
Contractors Risk (5%)		
Sub-total		
Optimisim Bias (30%)		
Sub-total		
Scape Fee (5.95%)		
Construction Total	**2,462,629**	

7.2. Opportunities, Risk and Value Engineering

For this feasibility study a 30% optimism bias figure has been applied to all our cost estimates. If the project enters into pre-construction (ECI), as the scope of design and construction work becomes clear a detailed risk and opportunity workshop will be held in order that Balfour Beatty and Leeds

City Council can effectively manage all risk and opportunity on the project. This will also apply to value engineering opportunities.

7.3. Value for Money

As this project is being procured through the Scape generation 2 framework a value for money assessment will be issued at the end of the pre-construction (ECI) phase in line with our framework commitments.

7.4. Supply Chain Analysis and Strategy

Please see below the supply chain strategy and intelligence report utilised to prepare the budget quotations. At preconstruction stage, further work will be undertaken to obtain a minimum of 3 quotes per package:



8. Performance Management

The Scape Performance Indicators will be used for this scheme as per Schedule 6 of the Framework Agreement. The PIs are designed to measure different things including:

- Our product performance e.g.- environmental performance, design quality, defects
- Our project performance – e.g.- predictability of time, cost, health & safety, local spend
- Our organisational performance – e.g.- our respect for people - staff survey results
- Our relationship performance – e.g.- customer satisfaction, supply chain satisfaction.



There are 22 standard Scape Performance Indicators per project that are monitored diligently by Scape. The portal is an online cloud based system that requires extensive input from the main contractor each month to ensure that they achieve pass standard on all of 23 project PIs listed as follows.

PI Reference (Schedule 15)	Performance Indicator (PI)	No. of PIs	Minimum Pass Standard	Approach to achieve PI
P1-4	Predictability of Time and Cost PIs (applicable to both Pre-Construction and Construction Stages)	4	0% change against contractor predictions in Scape Gateway Forms (excluding client change)	
P5	Local Labour	1	20% from within 10 miles 40% from within 20 miles 75% from within 40 miles	Included in Social Value Action Plan
P6	Local Spend	1	20% from within 10 miles 40% from within 20 miles 75% from within 40 miles	Included in Commercial Management and Social Value Action Plan
P7-8	SMEs	2	85% of supply chain to be SMEs 85% of total project spend to be with SMEs	
P9	Social Enterprise Engagement	1	1 Social Enterprise to be engaged	Included in Social Value Action Plan
P10	Waste Diverted from Landfill	1	95% total non-hazardous waste to be diverted from landfill.	Included in Social Value Action Plan
P11	Fair Payment Terms	1	Client to Contractor 14 days (+7)	

			Contractor to Tier 2 Supply Chain 19 days (+7), Min pass standard: 100% compliance	
P12	Health and Safety	1	Zero RIDDOR	
P13	Environmental Incidents	1	Zero reportable environmental incidents or action notices	
P14	Considerate Constructors Scheme	1	Maintain a score of 38/50	Included in Social Value Action Plan
P15-19	Customer Satisfaction PIs (applicable to Pre-Construction stage and Construction stage)	6	Service, Product, Value for Money, Collaboration and Defects Min pass standard - a score of 8/10 against each one	
P20	Supply Chain Satisfaction	1	A score of 8/10 across 10 or more questions	
P21	Achievement of Project tender commitments	1	100% achievements of project commitments made in Schedule 18 from each individual project	
P23	Achievement of client Social Value targets	1	100% achievement of the targets agreed with the client but up to 5 Social Value National TOMs	Included in Social Value Action Plan

9. Social Value

The Otley Bridge project will be a significant project within the town centre of Otley. The project will be highly visible by the residents of Otley and we are aware that we have a responsibility to keep people safe, well informed, and be a good neighbour during the construction works. Balfour Beatty take this responsibility extremely seriously and throughout pre-construction (ECI) we will develop a detailed social value action plan which is targeted and relevant to the project location and the scope of the work. This will likely include:

- volunteering days
- school visits to talk about the scheme and the wider construction industry
- biodiversity net gain and other ecological enhancement work
- charity fundraising
- work experience
- apprenticeships

10. Next Steps

Balfour Beatty will present these feasibility findings to Leeds City Council on 20th December 2023. The intention is that Leeds City Council will then spend some time reviewing these feasibility findings to decide on the best way forwards.

The intention is that following review of this feasibility study in early 2024:

- Leeds City Council can make an informed decision on the solution to be progressed into detailed design and construction
- Leeds City Council can secure funding for the selected design and construction solution
- Discussions can commence with the many stakeholders which will be involved in this project at the earliest possible opportunity

We would recommend a swift decision is made to move the project into the pre-construction phase by the middle of January 2024 to hopefully ensure a summer 2024 construction start date can be successfully achieved.

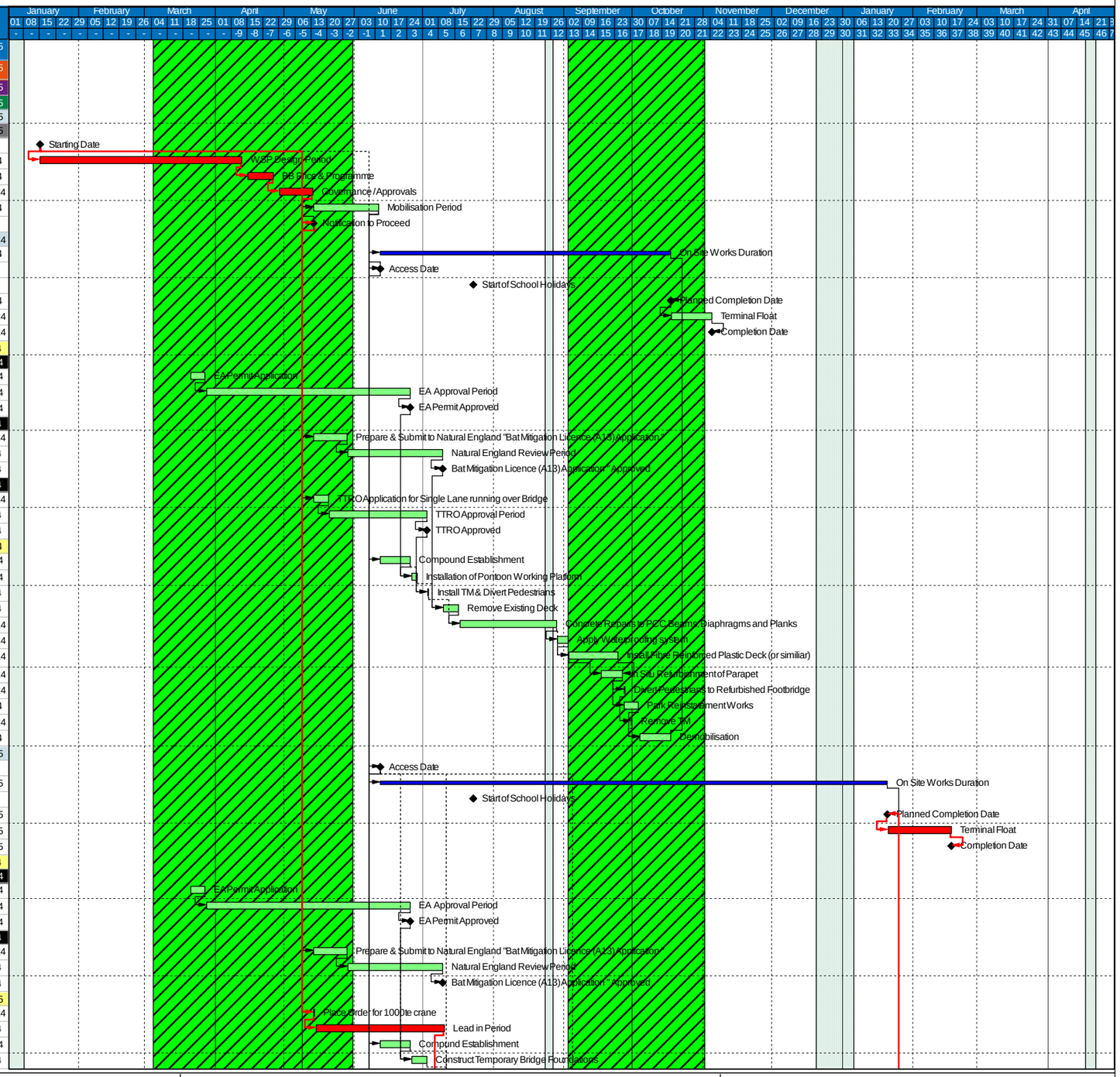
11. Appendices

Appendix A – Outline construction programmes for options 1, 2 and 3 together with sub options a, b and c.

Otley Bridge - Option 1 Minor Refurbishment

Balfour Beatty

Activity ID	Activity Name	Orig Dur	Start	Finish
Otley Bridge - Option 1 Minor Refurbishment		271	15-Jan-24	17-Feb-25
Scape Stage 2: Feasibility		271	15-Jan-24	17-Feb-25
Programme		271	15-Jan-24	17-Feb-25
Programme Data		271	15-Jan-24	17-Feb-25
Contractors		271	15-Jan-24	17-Feb-25
Contractors Programme		271	15-Jan-24	17-Feb-25
S2-A-02530	Starting Date	0	15-Jan-24	
S2-A-02570	WSP Design Period	63	15-Jan-24	12-Apr-24
S2-A-02990	BB Price & Programme	10	15-Apr-24	26-Apr-24
S2-A-03000	Governance /Approvals	10	29-Apr-24	13-May-24
S2-A-02560	Mobilisation Period	20	14-May-24	11-Jun-24
S2-A-03010	Notification to Proceed	0	14-May-24	
Option 1A: Minor Refurbishment- Single Lane Running on Existing Bridge		158	21-Mar-24	04-Nov-24
S2-A-02520	On Site Works Duration	128	12-Jun-24	17-Oct-24
S2-A-02500	Access Date	0	12-Jun-24	
S2-A-3080	Start of School Holidays	0	23-Jul-24*	
S2-A-03030	Planned Completion Date	0		17-Oct-24
S2-A-03040	Terminal Float	12	18-Oct-24	04-Nov-24
S2-A-02580	Completion Date	0		04-Nov-24
Licences		75	21-Mar-24	09-Jul-24
Environment Agency		65	21-Mar-24	25-Jun-24
S2-A-3380	EA Permit Application	5	21-Mar-24	27-Mar-24
S2-A-3390	EA Approval Period	60	28-Mar-24	25-Jun-24
S2-A-3400	EA Permit Approved	0		25-Jun-24
Bat Mitigation License		40	14-May-24	09-Jul-24
S2-A-02510	Prepare & Submit to Natural England "Bat Mitigation Licence (A13) Application "	10	14-May-24	28-May-24
S2-A-2870	Natural England Review Period	30	29-May-24	09-Jul-24
S2-A-02540	Bat Mitigation Licence (A13) Application " Approved	0		09-Jul-24
TTRO		35	14-May-24	02-Jul-24
S2-A-02550	TTRO Application for Single Lane running over Bridge	5	14-May-24	20-May-24
S2-A-2930	TTRO Approval Period	30	21-May-24	02-Jul-24
S2-A-2940	TTRO Approved	0		02-Jul-24
On Site Works		91	12-Jun-24	17-Oct-24
S2-A-2580	Compound Establishment	10	12-Jun-24	25-Jun-24
S2-A-2650	Installation of Pontoon Working Platform	3	26-Jun-24	28-Jun-24
S2-A-2590	Install TM & Divert Pedestrians	1	03-Jul-24	03-Jul-24
S2-A-2600	Remove Existing Deck	5	10-Jul-24	16-Jul-24
S2-A-2610	Concrete Repairs to PCC Beams, Diaphragms and Planks	30	17-Jul-24	28-Aug-24
S2-A-2620	Apply Waterproofing system	3	29-Aug-24	02-Sep-24
S2-A-2630	Install Fibre Reinforced Plastic Deck (or similiar)	16	03-Sep-24	24-Sep-24
S2-A-2640	In Situ Refurbishment of Parapet	8	17-Sep-24	26-Sep-24
S2-A-2660	Divert Pedestrians to Refurbished Footbridge	1	27-Sep-24	27-Sep-24
S2-A-2790	Park Reinstatement Works	5	27-Sep-24	03-Oct-24
S2-A-2670	Remove TM	1	30-Sep-24	30-Sep-24
S2-A-2680	Demobilisation	10	04-Oct-24	17-Oct-24
Option 1B: Minor Refurbishment- Temporary Pedestrian Bridge		223	21-Mar-24	17-Feb-25
S2-A-2690	Access Date	0	12-Jun-24	
S2-A-3040	On Site Works Duration	223	12-Jun-24	20-Jan-25
S2-A-3090	Start of School Holidays	0	23-Jul-24*	
S2-A-3050	Planned Completion Date	0		20-Jan-25
S2-A-3060	Terminal Float	20	21-Jan-25	17-Feb-25
S2-A-3070	Completion Date	0		17-Feb-25
Licenses		75	21-Mar-24	09-Jul-24
Environment Agency		65	21-Mar-24	25-Jun-24
S2-A-3410	EA Permit Application	5	21-Mar-24	27-Mar-24
S2-A-3420	EA Approval Period	60	28-Mar-24	25-Jun-24
S2-A-3430	EA Permit Approved	0		25-Jun-24
Bat Mitigation License		40	14-May-24	09-Jul-24
S2-A-2900	Prepare & Submit to Natural England "Bat Mitigation Licence (A13) Application "	10	14-May-24	28-May-24
S2-A-2910	Natural England Review Period	30	29-May-24	09-Jul-24
S2-A-2920	Bat Mitigation Licence (A13) Application " Approved	0		09-Jul-24
On Site Works		168	14-May-24	20-Jan-25
S2-A-2950	Place Order for 1000te crane	1	14-May-24	14-May-24
S2-A-2960	Lead in Period	40	15-May-24	10-Jul-24
S2-A-2830	Compund Establishment	10	12-Jun-24	25-Jun-24
S2-A-3020	Construct Temporary Bridge Foundations	5	26-Jun-24	02-Jul-24



Q14 Quorum Business Park
Benton Lane
Newcastle upon Tyne
NE12 8BU
balfourbeatty.com

Otley Bridge - Option 1 Minor Refurbishment

Layout: OB: HL Feasibility Construction

BBG-OB-FB01 Option1-00

Revisions

Date	Revision	Checked	Approved
12-Dec-23	00	JW	
13-Dec-23	01	JW	

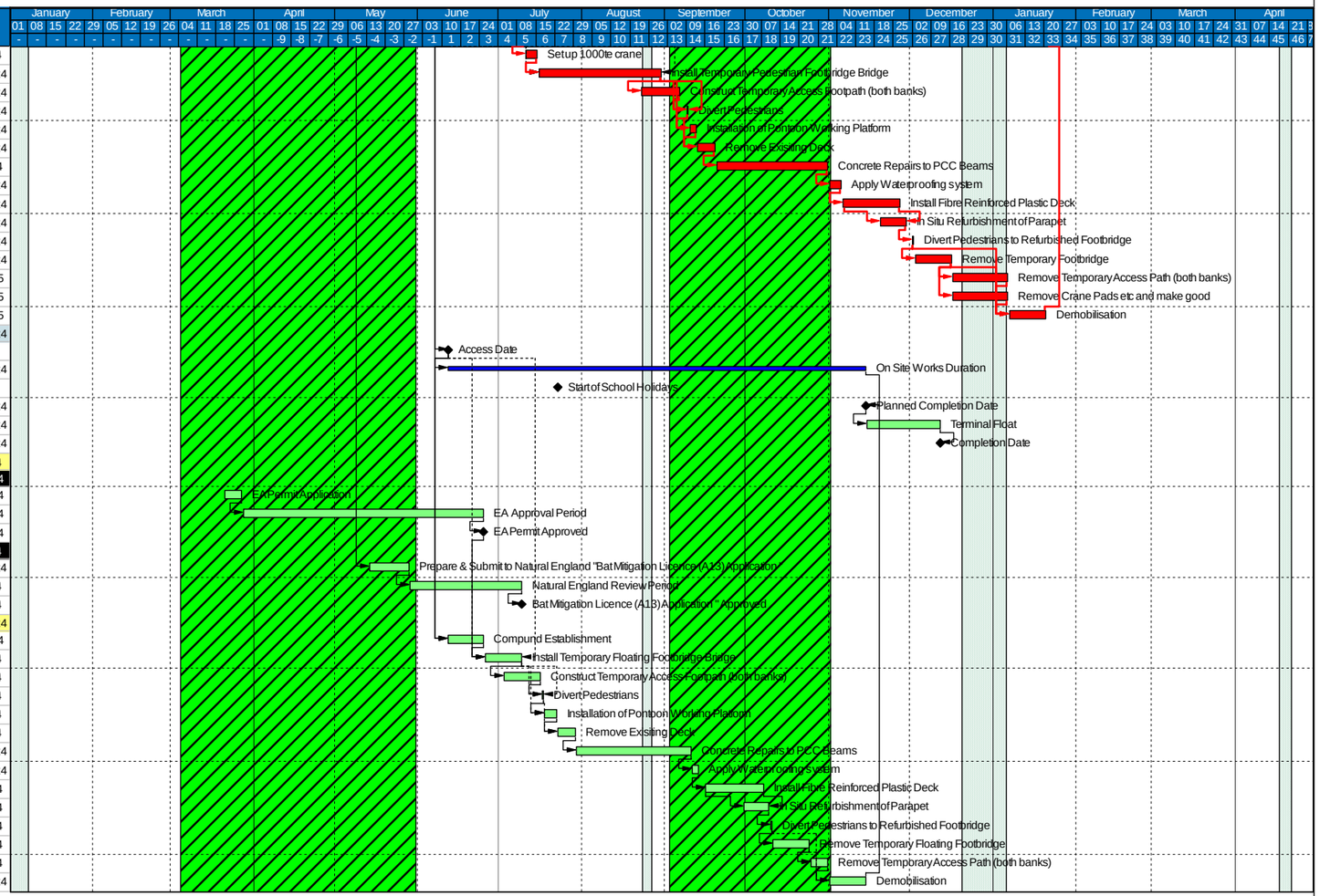
Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

Otley Bridge - Option 1 Minor Refurbishment

Balfour Beatty

Balfour Beatty

Activity ID	Activity Name	Orig Dur	Start	Finish
S2-A-2970	Setup 1000te crane	3	11-Jul-24	15-Jul-24
S2-A-2700	Install Temporary Pedestrian Footbridge Bridge	33	16-Jul-24	30-Aug-24
S2-A-2880	Construct Temporary Access Footpath (both banks)	10	23-Aug-24	06-Sep-24
S2-A-2710	Divert Pedestrians	1	09-Sep-24	09-Sep-24
S2-A-2770	Installation of Pontoon Working Platform	3	10-Sep-24	12-Sep-24
S2-A-2720	Remove Exisiting Deck	5	13-Sep-24	19-Sep-24
S2-A-2730	Concrete Repairs to PCC Beams	30	20-Sep-24	31-Oct-24
S2-A-2740	Apply Waterproofing system	3	01-Nov-24	05-Nov-24
S2-A-2750	Install Fibre Reinforced Plastic Deck	16	06-Nov-24	27-Nov-24
S2-A-2760	In Situ Refurbishment of Parapet	8	20-Nov-24	29-Nov-24
S2-A-2780	Divert Pedestrians to Refurbished Footbridge	1	02-Dec-24	02-Dec-24
S2-A-2860	Remove Temporary Footbridge	10	03-Dec-24	16-Dec-24
S2-A-2890	Remove Temporary Access Path (both banks)	5	17-Dec-24	06-Jan-25
S2-A-2980	Remove Crane Pads etc and make good	5	17-Dec-24	06-Jan-25
S2-A-2800	Demobilisation	10	07-Jan-25	20-Jan-25
Option 1C: Minor Refurbishment- Floating Bridge		186	21-Mar-24	12-Dec-24
S2-A-3100	Access Date	0	12-Jun-24	
S2-A-3330	On Site Works Duration	156	12-Jun-24	14-Nov-24
S2-A-3370	Start of School Holidays	0	23-Jul-24*	
S2-A-3350	Planned Completion Date	0		14-Nov-24
S2-A-3360	Terminal Float	20	15-Nov-24	12-Dec-24
S2-A-3340	Completion Date	0		12-Dec-24
Licenses		75	21-Mar-24	09-Jul-24
Environment Agency		65	21-Mar-24	25-Jun-24
S2-A-3440	EA Permit Application	5	21-Mar-24	27-Mar-24
S2-A-3450	EA Approval Period	60	28-Mar-24	25-Jun-24
S2-A-3460	EA Permit Approved	0		25-Jun-24
Bat Mitigation License		40	14-May-24	09-Jul-24
S2-A-3250	Prepare & Submit to Natural England "Bat Mitigation Licence (A13) Application "	10	14-May-24	28-May-24
S2-A-3260	Natural England Review Period	30	29-May-24	09-Jul-24
S2-A-3270	Bat Mitigation Licence (A13) Application " Approved	0		09-Jul-24
On Site Works		111	12-Jun-24	14-Nov-24
S2-A-3210	Compund Establishment	10	12-Jun-24	25-Jun-24
S2-A-3110	Install Temporary Floating Footbridge Bridge	10	26-Jun-24	09-Jul-24
S2-A-3230	Construct Temporary Access Footpath (both banks)	10	03-Jul-24	16-Jul-24
S2-A-3120	Divert Pedestrians	1	17-Jul-24	17-Jul-24
S2-A-3180	Installation of Pontoon Working Platform	3	18-Jul-24	22-Jul-24
S2-A-3130	Remove Exisiting Deck	5	23-Jul-24	29-Jul-24
S2-A-3140	Concrete Repairs to PCC Beams	30	30-Jul-24	10-Sep-24
S2-A-3150	Apply Waterproofing system	3	11-Sep-24	13-Sep-24
S2-A-3160	Install Fibre Reinforced Plastic Deck	16	16-Sep-24	07-Oct-24
S2-A-3170	In Situ Refurbishment of Parapet	8	30-Sep-24	09-Oct-24
S2-A-3190	Divert Pedestrians to Refurbished Footbridge	1	10-Oct-24	10-Oct-24
S2-A-3220	Remove Temporary Floating Footbridge	10	11-Oct-24	24-Oct-24
S2-A-3240	Remove Temporary Access Path (both banks)	5	25-Oct-24	31-Oct-24
S2-A-3200	Demobilisation	10	01-Nov-24	14-Nov-24



Q14 Quorum Business Park
Benton Lane
Newcastle upon Tyne
NE12 8BU
balfourbeatty.com

Otley Bridge - Option 1 Minor Refurbishment

Layout: OB: HL Feasibility Construction

BBG-OB-FB01 Option1-00

Revisions

Date	Revision	Checked	Approved
12-Dec-23	00	JW	
13-Dec-23	01	JW	

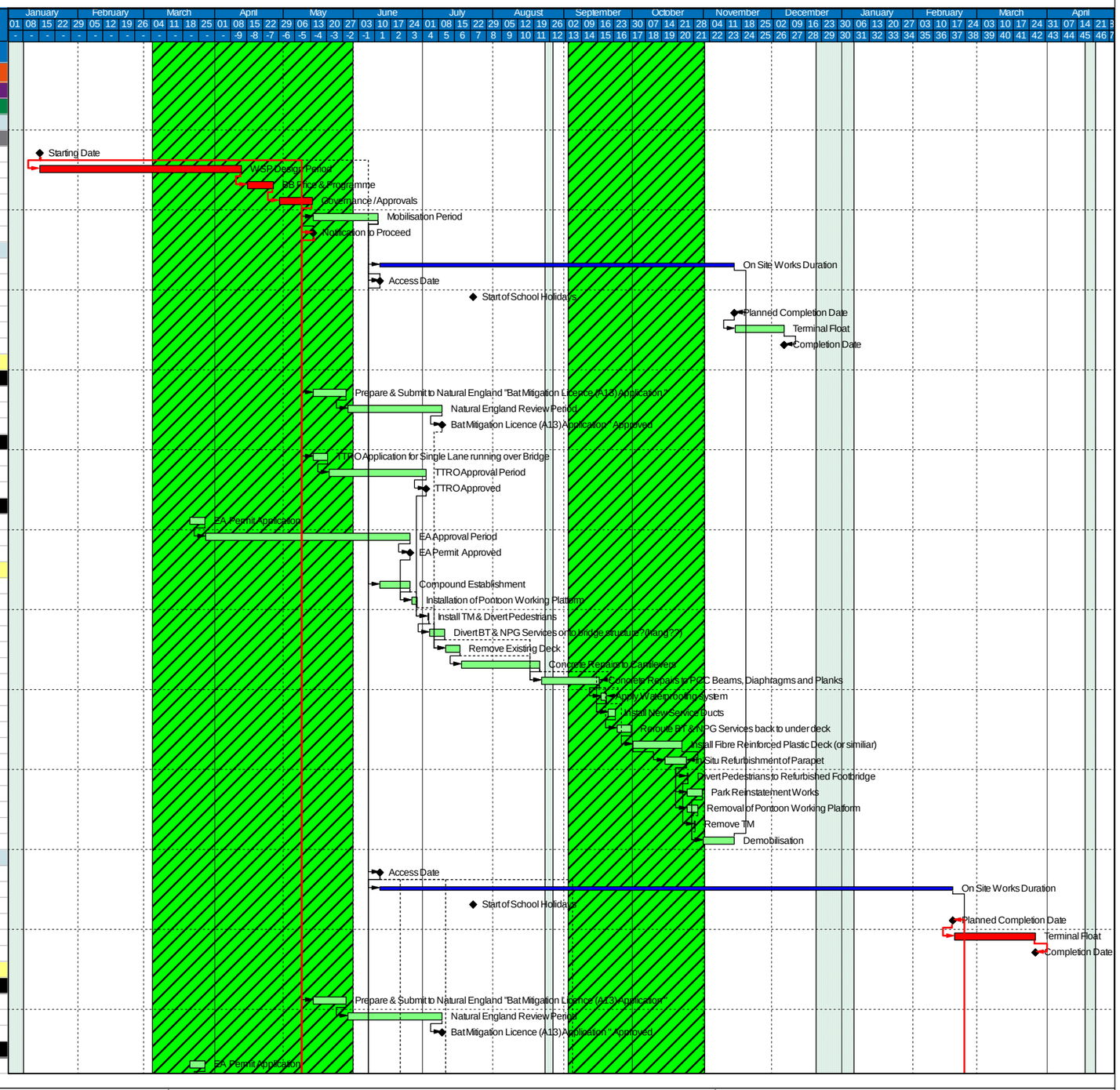
Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

Balfour Beatty

Otley Bridge - Option 2 Full Refurbishment

Balfour Beatty

Activity ID	Activity Name	Orig Dur	Start	Finish
Otley Bridge - Option 2 Full Refurbishment		298	15-Jan-24	26-Mar-25
Scape Stage 2: Feasibility		298	15-Jan-24	26-Mar-25
Programme		298	15-Jan-24	26-Mar-25
Programme Data		298	15-Jan-24	26-Mar-25
Contractors		298	15-Jan-24	26-Mar-25
Contractors Programme		298	15-Jan-24	26-Mar-25
S2-A-02530	Starting Date	0	15-Jan-24	
S2-A-02570	WSP Design Period	63	15-Jan-24	12-Apr-24
S2-A-02990	BB Price & Programme	10	15-Apr-24	26-Apr-24
S2-A-03000	Governance /Approvals	10	29-Apr-24	13-May-24
S2-A-02560	Mobilisation Period	20	14-May-24	11-Jun-24
S2-A-03010	Notification to Proceed	0	14-May-24	
Option 2A: Full Refurbishment- Single Lane Running on Existing Bridge		182	21-Mar-24	06-Dec-24
S2-A-02520	On Site Works Duration	156	12-Jun-24	14-Nov-24
S2-A-02500	Access Date	0	12-Jun-24	
S2-A-3120	Start of School Holidays	0	23-Jul-24*	
S2-A-03030	Planned Completion Date	0		14-Nov-24
S2-A-03040	Terminal Float	16	15-Nov-24	06-Dec-24
S2-A-02580	Completion Date	0		06-Dec-24
Licences		75	21-Mar-24	09-Jul-24
Bat Mitigation License		40	14-May-24	09-Jul-24
S2-A-02510	Prepare & Submit to Natural England "Bat Mitigation Licence (A13) Application "	10	14-May-24	28-May-24
S2-A-2870	Natural England Review Period	30	29-May-24	09-Jul-24
S2-A-02540	Bat Mitigation Licence (A13) Application " Approved	0		09-Jul-24
TTRO		35	14-May-24	02-Jul-24
S2-A-02550	TTRO Application for Single Lane running over Bridge	5	14-May-24	20-May-24
S2-A-2930	TTRO Approval Period	30	21-May-24	02-Jul-24
S2-A-2940	TTRO Approved	0		02-Jul-24
Environment Agency		65	21-Mar-24	25-Jun-24
S2-A-3460	EA Permit Application	5	21-Mar-24	27-Mar-24
S2-A-3470	EA Approval Period	60	28-Mar-24	25-Jun-24
S2-A-3480	EA Permit Approved	0		25-Jun-24
On Site Works		111	12-Jun-24	14-Nov-24
S2-A-2580	Compound Establishment	10	12-Jun-24	25-Jun-24
S2-A-2650	Installation of Pontoon Working Platform	3	26-Jun-24	28-Jun-24
S2-A-2590	Install TM & Divert Pedestrians	1	03-Jul-24	03-Jul-24
S2-A-2810	Divert BT & NPG Services onto bridge structure?(hang??)	5	04-Jul-24	10-Jul-24
S2-A-2600	Remove Existing Deck	5	11-Jul-24	17-Jul-24
S2-A-3080	Concrete Repairs to Cantilevers	25	18-Jul-24	21-Aug-24
S2-A-2610	Concrete Repairs to PCC Beams, Diaphragms and Planks	17	22-Aug-24	16-Sep-24
S2-A-2620	Apply Waterproofing system	3	17-Sep-24	19-Sep-24
S2-A-3090	Install New Service Ducts	2	20-Sep-24	23-Sep-24
S2-A-2820	Reroute BT & NPG Services back to under deck	5	24-Sep-24	30-Sep-24
S2-A-2630	Install Fibre Reinforced Plastic Deck (or similiar)	16	01-Oct-24	22-Oct-24
S2-A-2640	In Situ Refurbishment of Parapet	8	15-Oct-24	24-Oct-24
S2-A-2660	Divert Pedestrians to Refurbished Footbridge	1	25-Oct-24	25-Oct-24
S2-A-2790	Park Reinstatement Works	5	25-Oct-24	31-Oct-24
S2-A-3490	Removal of Pontoon Working Platform	3	25-Oct-24	29-Oct-24
S2-A-2670	Remove TM	1	28-Oct-24	28-Oct-24
S2-A-2680	Demobilisation	10	01-Nov-24	14-Nov-24
Option 2B: Full Refurbishment- Temporary Pedestrian Bridge		250	21-Mar-24	26-Mar-25
S2-A-2690	Access Date	0	12-Jun-24	
S2-A-3040	On Site Works Duration	252	12-Jun-24	18-Feb-25
S2-A-3130	Start of School Holidays	0	23-Jul-24*	
S2-A-3050	Planned Completion Date	0		18-Feb-25
S2-A-3060	Terminal Float	26	19-Feb-25	26-Mar-25
S2-A-3070	Completion Date	0		26-Mar-25
Licenses		75	21-Mar-24	09-Jul-24
Bat Mitigation License		40	14-May-24	09-Jul-24
S2-A-2900	Prepare & Submit to Natural England "Bat Mitigation Licence (A13) Application "	10	14-May-24	28-May-24
S2-A-2910	Natural England Review Period	30	29-May-24	09-Jul-24
S2-A-2920	Bat Mitigation Licence (A13) Application " Approved	0		09-Jul-24
Environment Agency		65	21-Mar-24	25-Jun-24
S2-A-3520	EA Permit Application	5	21-Mar-24	27-Mar-24



Q14 Quorum Business Park
Benton Lane
Newcastle upon Tyne
NE12 8BU
balfourbeatty.com

Otley Bridge - Option 2 Full Refurbishment

Layout: OB: HL Feasibility Construction

BBG-OB-FB01 Option2-00

Revisions

Date	Revision	Checked	Approved
12-Dec-23	00	JW	
13-Dec-23	01	JW	

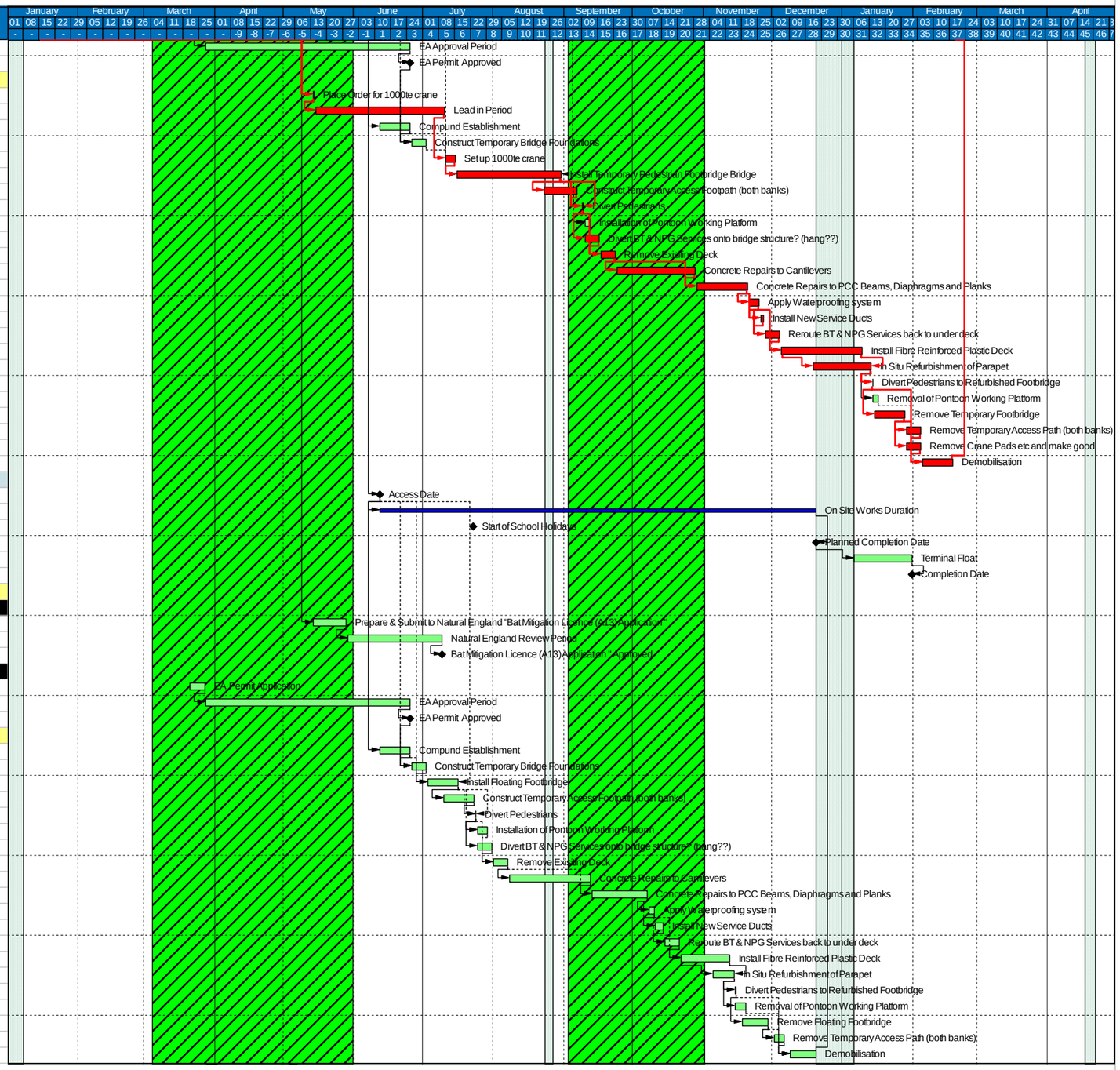
Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

Balfour Beatty

Otley Bridge - Option 2 Full Refurbishment

Balfour Beatty

Activity ID	Activity Name	Orig Dur	Start	Finish
S2-A-3530	EA Approval Period	60	28-Mar-24	25-Jun-24
S2-A-3540	EA Permit Approved	0		25-Jun-24
On Site Works		189	14-May-24	18-Feb-25
S2-A-2950	Place Order for 1000te crane	1	14-May-24	14-May-24
S2-A-2960	Lead in Period	40	15-May-24	10-Jul-24
S2-A-2830	Compund Establishment	10	12-Jun-24	25-Jun-24
S2-A-3020	Construct Temporary Bridge Foundations	5	26-Jun-24	02-Jul-24
S2-A-2970	Setup 1000te crane	3	11-Jul-24	15-Jul-24
S2-A-2700	Install Temporary Pedestrian Footbridge Bridge	33	16-Jul-24	30-Aug-24
S2-A-2880	Construct Temporary Access Footpath (both banks)	10	23-Aug-24	06-Sep-24
S2-A-2710	Divert Pedestrians	1	09-Sep-24	09-Sep-24
S2-A-2770	Installation of Pontoon Working Platform	3	10-Sep-24	12-Sep-24
S2-A-2850	Divert BT & NPG Services onto bridge structure? (hang??)	5	10-Sep-24	16-Sep-24
S2-A-2720	Remove Exisiting Deck	5	17-Sep-24	23-Sep-24
S2-A-3100	Concrete Repairs to Cantilevers	25	24-Sep-24	28-Oct-24
S2-A-2730	Concrete Repairs to PCC Beams, Diaphragms and Planks	17	29-Oct-24	20-Nov-24
S2-A-2740	Apply Waterproofing system	3	21-Nov-24	25-Nov-24
S2-A-3110	Install New Service Ducts	2	26-Nov-24	27-Nov-24
S2-A-2840	Reroute BT & NPG Services back to under deck	5	28-Nov-24	04-Dec-24
S2-A-2750	Install Fibre Reinforced Plastic Deck	16	05-Dec-24	09-Jan-25
S2-A-2760	In Situ Refurbishment of Parapet	8	19-Dec-24	13-Jan-25
S2-A-2780	Divert Pedestrians to Refurbished Footbridge	1	14-Jan-25	14-Jan-25
S2-A-3500	Removal of Pontoon Working Platform	3	14-Jan-25	16-Jan-25
S2-A-2860	Remove Temporary Footbridge	10	15-Jan-25	28-Jan-25
S2-A-2890	Remove Temporary Access Path (both banks)	5	29-Jan-25	04-Feb-25
S2-A-2980	Remove Crane Pads etc and make good	5	29-Jan-25	04-Feb-25
S2-A-2800	Demobilisation	10	05-Feb-25	18-Feb-25
Option 2C: Full Refurbishment- Temporary Floating Footbridge		212	21-Mar-24	31-Jan-25
S2-A-3140	Access Date	0	12-Jun-24	
S2-A-3390	On Site Works Duration	192	12-Jun-24	20-Dec-24
S2-A-3450	Start of School Holidays	0	23-Jul-24*	
S2-A-3410	Planned Completion Date	0		20-Dec-24
S2-A-3420	Terminal Float	20	06-Jan-25	31-Jan-25
S2-A-3400	Completion Date	0		31-Jan-25
Licenses		75	21-Mar-24	09-Jul-24
Bat Mitigation License		40	14-May-24	09-Jul-24
S2-A-3310	Prepare & Submit to Natural England "Bat Mitigation Licence (A13) Application "	10	14-May-24	28-May-24
S2-A-3320	Natural England Review Period	30	29-May-24	09-Jul-24
S2-A-3330	Bat Mitigation Licence (A13) Application " Approved	0		09-Jul-24
Environment Agency		65	21-Mar-24	25-Jun-24
S2-A-3550	EA Permit Application	5	21-Mar-24	27-Mar-24
S2-A-3560	EA Approval Period	60	28-Mar-24	25-Jun-24
S2-A-3570	EA Permit Approved	0		25-Jun-24
On Site Works		137	12-Jun-24	20-Dec-24
S2-A-3250	Compund Establishment	10	12-Jun-24	25-Jun-24
S2-A-3380	Construct Temporary Bridge Foundations	5	26-Jun-24	02-Jul-24
S2-A-3150	Install Floating Footbridge	10	03-Jul-24	16-Jul-24
S2-A-3290		10	10-Jul-24	23-Jul-24
S2-A-3160	Divert Pedestrians	1	24-Jul-24	24-Jul-24
S2-A-3220	Installation of Pontoon Working Platform	3	25-Jul-24	29-Jul-24
S2-A-3270	Divert BT & NPG Services onto bridge structure? (hang??)	5	25-Jul-24	31-Jul-24
S2-A-3170	Remove Exisiting Deck	5	01-Aug-24	07-Aug-24
S2-A-3430	Concrete Repairs to Cantilevers	25	08-Aug-24	12-Sep-24
S2-A-3180	Concrete Repairs to PCC Beams, Diaphragms and Planks	17	13-Sep-24	07-Oct-24
S2-A-3190	Apply Waterproofing system	3	08-Oct-24	10-Oct-24
S2-A-3440	Install New Service Ducts	2	11-Oct-24	14-Oct-24
S2-A-3260	Reroute BT & NPG Services back to under deck	5	15-Oct-24	21-Oct-24
S2-A-3200	Install Fibre Reinforced Plastic Deck	16	22-Oct-24	12-Nov-24
S2-A-3210	In Situ Refurbishment of Parapet	8	05-Nov-24	14-Nov-24
S2-A-3230	Divert Pedestrians to Refurbished Footbridge	1	15-Nov-24	15-Nov-24
S2-A-3510	Removal of Pontoon Working Platform	3	15-Nov-24	19-Nov-24
S2-A-3280	Remove Floating Footbridge	10	18-Nov-24	29-Nov-24
S2-A-3300	Remove Temporary Access Path (both banks)	5	02-Dec-24	06-Dec-24
S2-A-3240	Demobilisation	10	09-Dec-24	20-Dec-24



Q14 Quorum Business Park
Benton Lane
Newcastle upon Tyne
NE12 8BU
balfourbeatty.com

Otley Bridge - Option 2 Full Refurbishment

Layout: OB: HL Feasibility Construction

BBG-OB-FB01 Option2-00

Revisions

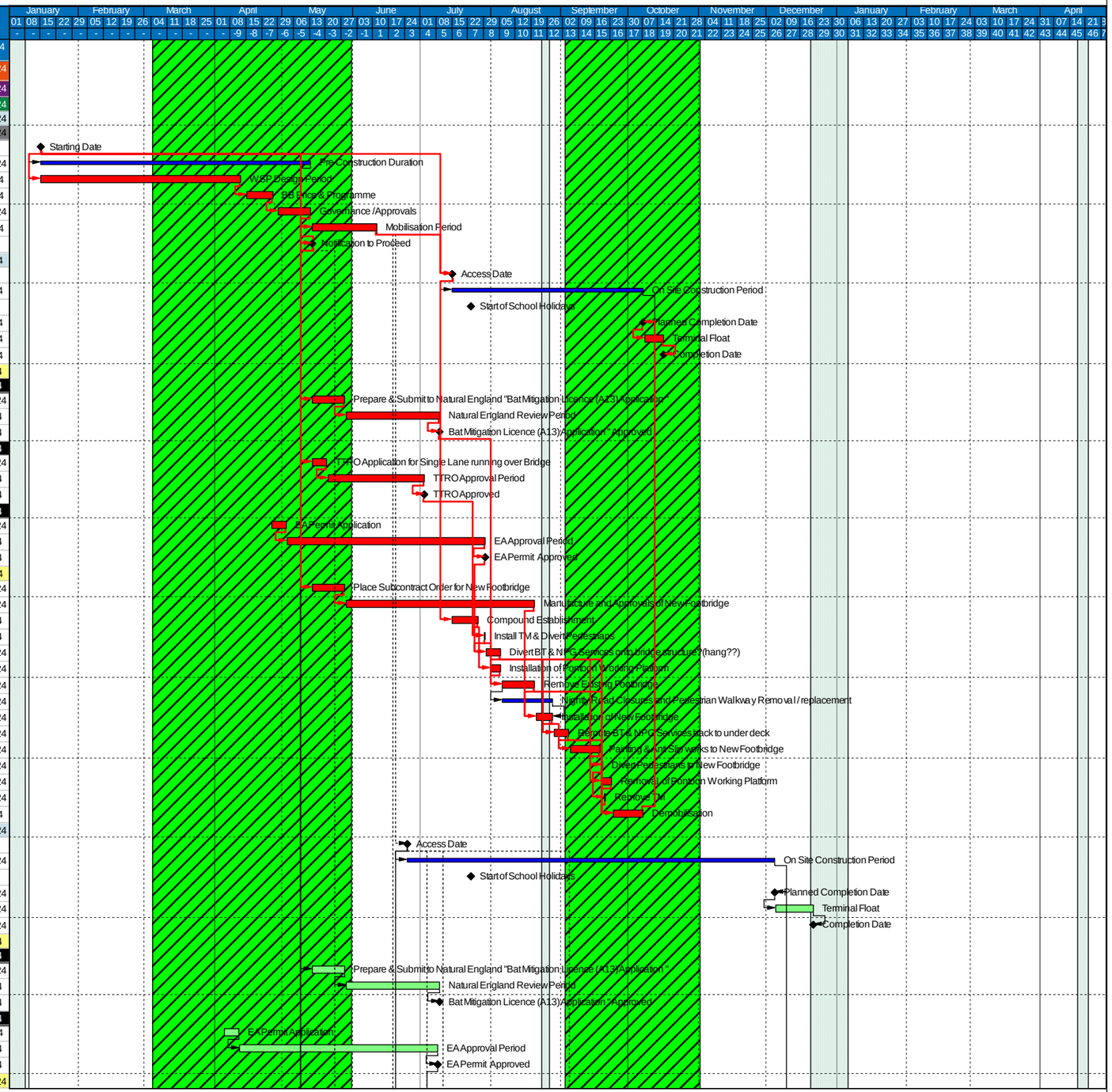
Date	Revision	Checked	Approved
12-Dec-23	00	JW	
13-Dec-23	01	JW	

Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

Otley Bridge - Option 3 Replacement

Balfour Beatty

Activity ID	Sumary Programme	Activity Name	Orig Dur	Start	Finish
Otley Bridge - Option 3 Replacement			240	15-Jan-24	21-Dec-24
Scape Stage 2: Feasibility			240	15-Jan-24	21-Dec-24
Programme			240	15-Jan-24	21-Dec-24
Programme Data			240	15-Jan-24	21-Dec-24
Contractors			240	15-Jan-24	21-Dec-24
Contractors Programme			240	15-Jan-24	21-Dec-24
S2-A-02530		Starting Date	0	15-Jan-24	
S2-A-02520		Pre Construction Duration	120	15-Jan-24	13-May-24
S2-A-02570		WSP Design Period	63	15-Jan-24	12-Apr-24
S2-A-02990		BB Price & Programme	10	15-Apr-24	26-Apr-24
S2-A-03000		Governance /Approvals	10	29-Apr-24	13-May-24
S2-A-02560		Mobilisation Period	20	14-May-24	11-Jun-24
S2-A-03010		Notification to Proceed	0	14-May-24	
Option 3A: Full Replacemntt- Single Lane Running on Existing Bridge			121	26-Apr-24	16-Oct-24
S2-A-02500	SP	Access Date	0	15-Jul-24	
S2-A-3100	SP	On Site Construction Period	85	15-Jul-24	07-Oct-24
S2-A-3160	SP	Start of School Holidays	0	23-Jul-24*	
S2-A-3090	SP	Planned Completion Date	0		07-Oct-24
S2-A-3110	SP	Terminal Float	9	08-Oct-24	16-Oct-24
S2-A-02580	SP	Completion Date	0		16-Oct-24
Licences			65	26-Apr-24	29-Jul-24
Bat Mitigation License			40	14-May-24	09-Jul-24
S2-A-02510		Prepare & Submit to Natural England "Bat Mitigation Licence (A13) Application "	10	14-May-24	28-May-24
S2-A-2870		Natural England Review Period	30	29-May-24	09-Jul-24
S2-A-02540		Bat Mitigation Licence (A13) Application " Approved	0		09-Jul-24
TTRO			35	14-May-24	02-Jul-24
S2-A-02550		TTRO Application for Single Lane running over Bridge	5	14-May-24	20-May-24
S2-A-2930		TTRO Approval Period	30	21-May-24	02-Jul-24
S2-A-2940		TTRO Approved	0		02-Jul-24
Environment Agency			65	26-Apr-24	29-Jul-24
S2-A-3540		EA Permit Application	5	26-Apr-24	02-May-24
S2-A-3550		EA Approval Period	60	03-May-24	29-Jul-24
S2-A-3560		EA Permit Approved	0		29-Jul-24
On Site Works			103	14-May-24	07-Oct-24
S2-A-3180		Place Subcontract Order for New Footbridge	10	14-May-24	28-May-24
S2-A-3190		Manufacture and Approvals of New Footbridge	60	29-May-24	20-Aug-24
S2-A-2580		Compound Establishment	10	15-Jul-24	26-Jul-24
S2-A-2590		Install TM & Divert Pedestrians	1	29-Jul-24	29-Jul-24
S2-A-2810		Divert BT & NPG Services onto bridge structure?(hang??)	5	30-Jul-24	05-Aug-24
S2-A-2650		Installation of Pontoon Working Platform	3	01-Aug-24	05-Aug-24
S2-A-2600		Remove Existing Footbridge	11	06-Aug-24	20-Aug-24
S2-A-3070		Nightly Road Closures and Pedestrian Walkway Removal / replacement	16	06-Aug-24	28-Aug-24
S2-A-3030		Installation of New Footbridge	5	21-Aug-24	28-Aug-24
S2-A-2820		Reroute BT & NPG Services back to under deck	5	29-Aug-24	04-Sep-24
S2-A-3040		Painting & Anti Slip works to New Footbridge	10	05-Sep-24	18-Sep-24
S2-A-2660		Divert Pedestrians to New Footbridge	1	19-Sep-24	19-Sep-24
S2-A-3510		Removal of Pontoon Working Platform	3	19-Sep-24	23-Sep-24
S2-A-2670		Remove TM	1	20-Sep-24	20-Sep-24
S2-A-2680		Demobilisation	10	24-Sep-24	07-Oct-24
Option 3B: Full Replacement- Temporary Pedestrian Bridge			183	05-Apr-24	21-Dec-24
S2-A-2690	SP	Access Date	0	25-Jun-24	
S2-A-3120	SP	On Site Construction Period	163	25-Jun-24	04-Dec-24
S2-A-3170	SP	Start of School Holidays	0	23-Jul-24*	
S2-A-3130	SP	Planned Completion Date	0		04-Dec-24
S2-A-3140	SP	Terminal Float	17	05-Dec-24	21-Dec-24
S2-A-3150	SP	Completion Date	0		21-Dec-24
Licenses			66	05-Apr-24	09-Jul-24
Bat Mitigation License			40	14-May-24	09-Jul-24
S2-A-2900		Prepare & Submit to Natural England "Bat Mitigation Licence (A13) Application "	10	14-May-24	28-May-24
S2-A-2910		Natural England Review Period	30	29-May-24	09-Jul-24
S2-A-2920		Bat Mitigation Licence (A13) Application " Approved	0		09-Jul-24
Environment Agency			65	05-Apr-24	08-Jul-24
S2-A-3570		EA Permit Application	5	05-Apr-24	11-Apr-24
S2-A-3580		EA Approval Period	60	12-Apr-24	08-Jul-24
S2-A-3590		EA Permit Approved	0		08-Jul-24
On Site Works			145	14-May-24	04-Dec-24



Q14 Quorum Business Park
Benton Lane
Newcastle upon Tyne
NE12 8BU
balfourbeatty.com

Otley Bridge - Option 3 Replacement

Layout: OB: HL Feasibility Construction

BBG-OB-FB01 Option3-00

Revisions

Date	Revision	Checked	Approved
12-Dec-23	00	JW	
13-Dec-23	01	JW	

- Remaining Level of Effort
- Actual Work
- Remaining Work
- Critical Remaining Work
- Milestone

Otley Bridge - Option 3 Replacement

Balfour Beatty

Balfour Beatty

Activity ID	Sumary Programme	Activity Name	Orig Dur	Start	Finish
S2-A-2950		Place Order for 1000te crane	1	14-May-24	14-May-24
S2-A-2740		Place Subcontract Order for New Footbridge	10	14-May-24	28-May-24
S2-A-2960		Lead in Period	40	15-May-24	10-Jul-24
S2-A-2730		Manufacture and Approvals of New Footbridge	60	29-May-24	20-Aug-24
S2-A-2830		Compound Establishment	10	25-Jun-24	08-Jul-24
S2-A-3020		Construct Temporary Bridge Foundations	5	09-Jul-24	15-Jul-24
S2-A-2970		Setup 1000te crane	3	11-Jul-24	15-Jul-24
S2-A-2700		Install Temporary Pedestrian Footbridge Bridge	33	16-Jul-24	30-Aug-24
S2-A-2880		Construct Temporary Access Footpath (both banks)	10	23-Aug-24	06-Sep-24
S2-A-2710		Divert Pedestrians	1	09-Sep-24	09-Sep-24
S2-A-2770		Installation of Pontoon Working / Safety Platform	3	10-Sep-24	12-Sep-24
S2-A-2850		Divert BT & NPG Services onto bridge structure? (hang??)	5	10-Sep-24	16-Sep-24
S2-A-2720		Remove Exisiting Footbridge	11	17-Sep-24	01-Oct-24
S2-A-3080		Nightly Road Closures	16	17-Sep-24	08-Oct-24
S2-A-3050		Installation of New Footbridge	5	02-Oct-24	08-Oct-24
S2-A-2840		Reroute BT & NPG Services back to under deck	5	09-Oct-24	15-Oct-24
S2-A-3060		Painting & Anti Slip works to New Footbridge	10	16-Oct-24	29-Oct-24
S2-A-2780		Divert Pedestrians to New Footbridge	1	30-Oct-24	30-Oct-24
S2-A-3520		Removal of Pontoon Working / Safety Platform	3	30-Oct-24	01-Nov-24
S2-A-2860		Remove Temporary Footbridge	10	31-Oct-24	13-Nov-24
S2-A-2890		Remove Temporary Access Path (both banks)	5	14-Nov-24	20-Nov-24
S2-A-2980		Remove Crane Pads etc and make good	5	14-Nov-24	20-Nov-24
S2-A-2800		Demobilisation	10	21-Nov-24	04-Dec-24
Option 3C: Full Replacement- Floating Temporary Bridge			208	15-Jan-24	06-Nov-24
S2-A-3200	SP	Access Date	0	24-Jun-24	
S2-A-3480	SP	On Site Construction Period	123	24-Jun-24	24-Oct-24
S2-A-3500	SP	Start of School Holidays	0	23-Jul-24*	
S2-A-3470	SP	Planned Completion Date	0		24-Oct-24
S2-A-3490	SP	Terminal Float	13	25-Oct-24	06-Nov-24
S2-A-3460	SP	Completion Date	0		06-Nov-24
Licenses			121	15-Jan-24	05-Jul-24
Bat Mitigation License			40	15-Jan-24	08-Mar-24
S2-A-3330		Prepare & Submit to Natural England "Bat Mitigation Licence (A13) Application "	10	15-Jan-24	26-Jan-24
S2-A-3340		Natural England Review Period	30	29-Jan-24	08-Mar-24
S2-A-3350		Bat Mitigation Licence (A13) Application " Approved	0		08-Mar-24
Environment Agency			65	04-Apr-24	05-Jul-24
S2-A-3600		EA Permit Application	5	04-Apr-24	10-Apr-24
S2-A-3610		EA Approval Period	60	11-Apr-24	05-Jul-24
S2-A-3620		EA Permit Approved	0		05-Jul-24
On Site Works			116	14-May-24	24-Oct-24
S2-A-3440		Place Subcontract Order for New Footbridge	10	14-May-24	28-May-24
S2-A-3430		Manufacture and Approvals of New Footbridge	60	29-May-24	20-Aug-24
S2-A-3270		Compound Establishment	10	24-Jun-24	05-Jul-24
S2-A-3210		Install Temporary Floating Bridge	10	08-Jul-24	19-Jul-24
S2-A-3310		Construct Temporary Access Footpath (both banks)	10	15-Jul-24	26-Jul-24
S2-A-3220		Divert Pedestrians	1	29-Jul-24	29-Jul-24
S2-A-3290		Divert BT & NPG Services onto bridge structure? (hang??)	5	30-Jul-24	05-Aug-24
S2-A-3240		Installation of Pontoon Working / Safety Platform	3	01-Aug-24	05-Aug-24
S2-A-3230		Remove Exisiting Footbridge	11	06-Aug-24	20-Aug-24
S2-A-3450		Nightly Road Closures	16	06-Aug-24	28-Aug-24
S2-A-3410		Installation of New Footbridge	5	21-Aug-24	28-Aug-24
S2-A-3280		Reroute BT & NPG Services back to under deck	5	29-Aug-24	04-Sep-24
S2-A-3420		Painting & Anti Slip works to New Footbridge	10	05-Sep-24	18-Sep-24
S2-A-3250		Divert Pedestrians to New Footbridge	1	19-Sep-24	19-Sep-24
S2-A-3530		Removal of Pontoon Working / Safety Platform	3	19-Sep-24	23-Sep-24
S2-A-3300		Floating Remove Temporary Footbridge	10	20-Sep-24	03-Oct-24
S2-A-3320		Remove Temporary Access Path (both banks)	5	04-Oct-24	10-Oct-24
S2-A-3260		Demobilisation	10	11-Oct-24	24-Oct-24



Q14 Quorum Business Park
Benton Lane
Newcastle upon Tyne
NE12 8BU
balfourbeatty.com

Otley Bridge - Option 3 Replacement

Layout: OB: HL Feasibility Construction

BBG-OB-FB01 Option3-00

Revisions

Date	Revision	Checked	Approved
12-Dec-23	00	JW	
13-Dec-23	01	JW	

Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone