



BARNSLEY
Metropolitan Borough Council

Penny Pie Park Foot and Cycle Bridge
(Option 3 – Arch Trussed Foot and Cycle
Bridge)

DESIGN & ACCESS STATEMENT

Introduction

This design and access statement is submitted in support of the application for planning permission to promote better quality and more sustainable design. It is proposed to construct a new Arched Truss Foot and Cycle Bridge linking Penny Pie Park to Pogmoor Recreational Ground. The bridge will span the existing Barnsley to Huddersfield rail line. Details of the Arched Truss Foot and Cycle Bridge are contained within the feasibility report submitted with this application **(Option 3)**

Context and Site Use

Penny Pie Park is a Local Neighbourhood Green Space to the west of Barnsley town centre. It is bordered by Pogmoor Road to the west, Dodworth Road/A628 to the south, the Barnsley to Huddersfield rail line to the north and residential properties to the east.

The park is approximately 500m to the east of Junction 37 of the M1, with Dodworth Road acting as a primary vehicular route into Barnsley town centre. Drawing Fig.1 shows the location of the proposed bridge in relation to both Penny Pie Park and Pogmoor Recreational Ground.

Pogmoor recreational Ground lies to the north of Penny Pie Park and is separated by the Barnsley to Huddersfield rail line.

Planning approval has previously been granted to create signalised gyratory roundabout with improvements to the existing Dodworth Road / Broadway / Pogmoor Road junction and re-configuration of park (Ref 2018/0965 dated 31st July 2018).

The proposed new foot and cycle bridge will further enhance the improvements to the park area from the creation of the signalised gyratory by providing connectivity links between two community areas and creating a safer walking route to school and an active travel link for residents in the borough

Due to the existing ground conditions within both Penny Pie Park Pogmoor Recreational Ground and the proximity to the rail line, a Geotechnical desk top study Report has been produced for the site and has been submitted with this planning application.

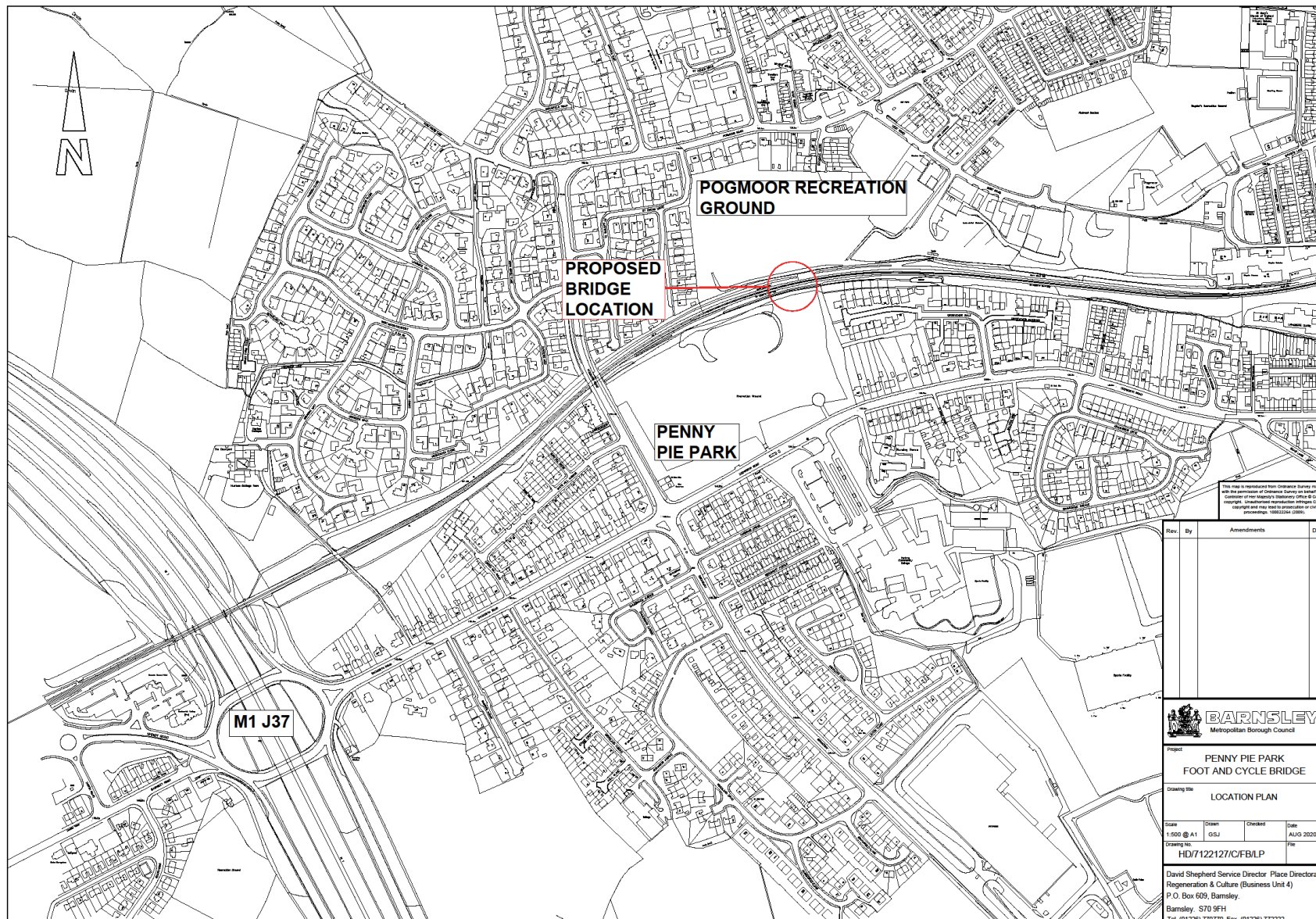


Fig.1

The Design of the Scheme

As part of the design process for the signalised gyratory, a greenspace appraisal was undertaken to identify deliverable mitigations to compensate for the impact of the scheme on the greenspace known as Penny Pie Park to ensure that the existing facilities would be enhanced, and a high quality, functional and attractive environment for the neighbourhood area will be created.

The options considered in the greenspace appraisal include the provision of a footbridge over the rail line, connecting to Pogmoor Recreation Ground as a compensatory green space with further links to Stock's Lane / Sugden's Recreation Ground.

In December 2019, specialist construction and structural engineering consultants were appointed to undertake a ground investigation and prepare a Ground Investigation Report (GIR) for the proposed construction of a footbridge over the railway connecting Penny Pie Park and Pogmoor Recreation Ground. Ground investigations were undertaken either side of the railway line to ascertain the ground conditions to inform solutions to support the proposed footbridge. The report included a review of published and freely available geological and historical information of the site; interpretation of existing ground investigations in the local area; identification of geotechnical risks and other pertinent issues associated with the design, construction and maintenance of the proposed structure, and discussion of ground conditions with regards to options for the proposed footbridge.

The results of the ground investigation report, along with topographical survey were considered as part of a feasibility study to provide a number of potential options and recommend the most appropriate construction solution for the foot and cycle bridge linking Penny Pie Park and Pogmoor Recreation Ground in order that the detailed design could be progressed.

Design Principles:

The proposed foot and cycle bridge will be designed in accordance with the relevant standards contained within the Design Manual for Roads and Bridges (DMRB). These standards can be found in the Feasibility Study which is submitted as part of this application.

As the bridge is intended for both pedestrian and cycle usage then a 3.0m clear width will be provided. New access paths leading to/from the path will also be created, linking into the paths created as part of the signalised gyratory scheme. These can be seen on the Masterplan submitted with this application.

The proposed foot and cycle bridge is to be lit throughout the hours of darkness in accordance with BS EN 12464 Part 2:2014 Light & lighting – Lighting of work places.

The proposed foot and cycle will take into consideration the needs of all users in respect of gradients.

Design Options:

The feasibility study submitted as part of this application contained 3 options which are discussed in detail. The subject of this application is **Option 3**. In summary:

Option 1 – Modified Network Rail Standard Detail Bridge

Advantages Very simple and durable structure
 Recognised design which should be readily accepted by Network Rail
 Simple maintenance regime

Disadvantages Requires raised bankseats
 Requires long, intrusive approach ramps

Option 2 – Truss Bridge

Advantages Aesthetically pleasing appearance
 Previously used design which should be readily accepted by Network Rail
 Bituminous surface used throughout

Disadvantages Requires raised bankseats
 More expensive solution
 Requires long, intrusive approach ramps

Option 3 – Arched Truss Bridge (**Subject of this application**)

Advantages Aesthetically very pleasing appearance
 Cheapest solution
 Bituminous surface used throughout
 Reduced impact on Penny Pie Park and Pogmoor Recreation Ground

Disadvantages Slightly increased complexity in fabrication
 Increased gradients at deck ends

Access

The site falls within both Penny Pie Park and Pogmoor Recreational Ground which has limited vehicle access points off both A628 Dodworth Road and Pogmoor Road for Penny Pie Park and off Glendale Close for Pogmoor Recreational Ground.

Pedestrian access can be gained from several access points throughout both parks

It is assumed that the proposed foot and cycle bridge will be erected from the Pogmoor Recreational Ground as this provides easier access.

Conclusion

It is proposed that **Option 3** of the feasibility report submitted with this application offers the following benefits and therefore provides the most aesthetically pleasing and less disruption of the options considered:

- Connect two existing greenspaces which are currently severed by the Sheffield / Huddersfield railway line,
- provide connectivity links between two community areas of Dodworth and Pogmoor (wards being Old Town and Dodworth),
- Provide a safe crossing point which does not exist currently , for children going to and from Horizon Community College as well as the wider general public,
- Provide a safe active travel route for the residents of the borough,
- Help with addressing the Network Rail recorded incursions onto the line by children in the Barnsley area.

The new foot and cycle bridge will provide a safe crossing point, for both children going to and from Horizon Community College as well as the wider general public and will provide a safe and active travel route for the residents of the borough.