Destination Tweed

Fotheringham Bridge to The Gytes

Feasibility Report

Scottish Borders Council

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1 Executive Summary

The wider Destination Tweed Project is led by Tweed Forum and developed in collaboration with multiple partners. Scottish Borders Council (SBC) are leading on delivering the River Tweed Trail element which is looking to create an attractive and accessible route along the length of the River Tweed, from source to sea, for walkers and cyclists of all ages and abilities. The route, largely off-road, will allow both tourists and locals to explore and enjoy the wider area as well as the heritage of the River Tweed.

This report has considered the section between Fotheringham Bridge and Gytes Park.

Initial route options were developed using information gathered including OS mapping, topographical survey data and historical studies. The routes were assessed against the scoring methodology set out in LTN 1/20, the site constraints encountered and public consultation feedback.

The north route consists of existing paved sections and unpaved grass sections adjacent to the river edge. The majority of the route will consist of new path construction and widening of the existing path at grade resulting in minimal earthworks. The most significant challenge with the northern route is the section adjacent to Hay Lodge Hospital referred to as ‘the hump’ however there have been multiple detailed studies on this constraint and there are considered to be viable solutions to navigate this. There will also be a requirement to replace the existing footbridge over Eddleston Water and this would also present an opportunity to level and replace the existing steps adjacent to Greenside with an accessible ramp.

The south route has an existing paved path constructed upon an embankment that would require extensive earthworks and tree clearance to widen. An alternative option to divert cyclists through the woodland north of South Parks as highlighted in previous studies would need careful consideration to provide a safe link. There are sections of the path (e.g. the Cauld) that would be too narrow with limited options to widen the path due to private land boundaries and the proximity to the river edge. A number of these constraints are unlikely to have a practical engineering solution that will be achievable resulting in departures from standard for extended lengths. It is therefore considered that the route would be less coherent and provide a lower level of service.

The north route scored higher on the LTN1/20 assessment, was the most popular route at public consultation and was shown to be comparable in cost to the south route.

Therefore, considering the above it is recommended that the North Route is taken forward for further consideration.

The section between Priorsford Bridge and Gytes Park is shared between both routes and therefore it is recommended that this section is constructed initially. This would provide a direct off-carriageway link with Peebles town centre (Tweed Green) and the Tweed Valley Railway Path. This section will be constructed under permitted development but key project stakeholders and Council officers will be consulted on the proposals prior to implementation.

2 Introduction

2.1 Background

The Destination Tweed Project is led by Tweed Forum and is being developed in collaboration with Scottish Borders Council (SBC). The project is looking to create an attractive and accessible route along the length of the River Tweed, from source to sea, for walkers and cyclists of all ages and abilities. The route, largely off-road, will allow both tourists and locals to explore and enjoy the wider area as well as the heritage of the River Tweed.

The project aims to deliver a fit for purpose trail by upgrading existing sections of route as well constructing new sections of route where realignment is deemed necessary, as well as upgrading or installing new required drainage works, road crossings, bridges, and signage.

The route is broken down into a number of sections to allow for detailed studies to be made to establish to best route, designs, and needs to allow for future maintenance and management of the trail, whilst also delivering the project on time and within budget.

This report will look at the section between Fotheringham Bridge and Gytes Park. It will evaluate various routes by taking into consideration any constraints posed and assess the possible route options that are available and their feasibility in terms of a number of factors, including their appropriateness to complying with design standards and guidelines.

Figure 1 Aerial view showing tie-in start and end locations of section

2.2 Previous Studies

There have been long term aspirations from the community in Peebles to form an active travel corridor along the north and south side of the river linking Fotheringham Bridge and Priorsford Bridge that is accessible for all.

The north side of the river has been considered as a potential extension to the Tweed Railway Path and was first looked at in 2008 by Jeremy Cunningham on behalf of Sustrans (Cunningham, 2008). The northern side has a key constraint located south of Haylodge Hospital termed 'the hump'. At this location, the path deviates from the river up a steep embankment via two flights of stairs before returning back to path level. The site is highly constrained and is discussed in more detail in **Section 5.1.4**.

Following on from this study, JBA Consulting Engineers were commissioned to undertake a design to level the hump and produced a report detailing potential options for a lower and an upper path with associated cost estimates (JBA Consulting , 2011). A copy of the designs is shown in **Appendix A.1.** In addition, a Protected Species Survey (PSS) was undertaken by Tweed Ecology to support a potential planning application for undertaking the work. The PSS identified a number of key ecological constraints including otters and bats that would need further work and licenses to proceed. This report was subsequently updated in 2022 in a Preliminary Ecological Appraisal (PEA) by Tweed Ecology and has been used to inform this report. No planning application was submitted and the works were not pursued.

In 2018, further concept designs were developed by ENV Consulting on behalf of the Peebles Callants' Club that further investigated options for a level path through the hump. A copy of their proposed design solution is shown in **Appendix A.2.**

Following these designs, SBC Engineering team were instructed in 2019 to review proposals and advise on potential alternative solutions at the hump. SBC developed designs that would preserve the mature trees which are shown in **Appendix A.3.** The compromise for maintaining the trees is that the path would deviate from accessible path and cycling design guidelines with gradients of 10% and in combination with perpendicular turns. These designs were taken to public consultation. It was concluded that the works would be environmentally sensitive and would require significant engineering works costing in the region of [redacted]. The project was not on SBCs priority list for capital infrastructure and therefore not developed further.

In 2019, as part of the Eddleston Water Path that was to be constructed in 2022/2023, the Peebles Community Trust (PCT) investigated links to the proposed path north of Peebles, through the town centre and to connect with the Tweed Valley Railway Path. PCT were successful in gaining funding from Sustrans Places for Everyone programme and subsequently commissioned Mott MacDonald in 2020 to produce an Options Appraisal Report. Following the publication of this report, the PCT developed the Peebles Active Travel study that looked at a more holistic view of active travel throughout the town. The report references key areas for improvement including the riverside paths which are to be widened wherever possible to accommodate multi-use.

Mott MacDonald were commissioned to undertake a Stage 2 Link Study which looked at interventions throughout the town. The report focuses on interventions within the town centre however, it references options to develop the north and south paths along the riverside. Sterry-Walters Partnership Ltd (SWP) were commissioned to undertake a masterplan for the landscape design for the Tweed Riverside Park. This included improvements specifically to the northern path with a number of interventions. A copy of the key drawings relating to the riverside corridor are shown in **Appendix A.4.**

In 2021, SBC design team also investigated options for improvements to the south side river path on behalf of SBC Parks and Environment. This work focused on improvements to widen the existing path between Fotheringham Bridge and The Cauld on the River Tweed. The designs highlighted significant earthworks would be required to support the widening, with potential limitations for retention of footway edge due to steep banks and proximity to the river and burn. A copy of some of the key drawings are shown in **Appendix A.5.**

In 2023 as part of the Destination Tweed project, Fairhurst were commissioned to look at design options for the section through Haylodge Park. A copy of their proposed design options are shown in **Appendix A.6.** The designs showed high-level alignment options for the proposed Destination Tweed path.

3 Design Guidelines and Standards

3.1 Design Guidelines & Standards

The object of this study is to develop a route for pedestrians and cyclists connecting the Fotheringham Bridge and Gytes Park. The design intention is that the route will be an off-carriageway path with the potential of creating segregated sections of path through highly populated areas. Where required or unavoidable, on-carriageway facilities will be considered.

Primary design guidelines used and referenced as appropriate in this report are:

- Transport Scotland 'Cycling by Design'
- SCOTS 'National Roads Development Guide'
- Sustrans 'Traffic-Free Routes and Greenways Design Guide'
- Paths For All 'Lowland Path Construction Guide'
- 'The Traffic Signs Regulations and General Directions'

The key design criteria for the route are summarised in **Table 1**.

Table 1 Key Design Criteria

Criteria	Specification	Reference
Shared Use Path Width (remote)	Desirable Minimum – 4.0m, Absolute Minimum – 2.5m	Cycling by Design, Table 3.7
Shared Use Path Width (adjacent to carriageway)	Desirable Minimum – 4.0m, Absolute Minimum – 2.5m Buffer – 300mm (20mph)*, Buffer – 500mm (30mph)	Cycling by Design, Table 3.7 Cycling by Design, Table 3.8 * 300mm buffer previously used on similar projects for 20mph.
Segregated Cycle Path (two-way)	Footway width – Desirable Minimum 2.0m, Absolute Minimum 1.5m Cycle track width – Desirable Minimum 3.0m, Absolute Minimum 2.0m	Cycling by Design, Table 3.7
Clearance from Vertical Features	Veritcal Feature (60-150mm) – 0.20m Vertical Feature (150-600mm) - 0.25m Vertical Feature (>600mm) - 0.50m	Cycling by Design, Table 3.9
Gradients	5% - maximum length – 10m 7% - maximum length – 5m	Cycling by Design, Table 3.6
Horizontal Radius	14m – Local Access Link	Cycling by Design, Table 3.5
Pavement Construction	Surface Course: 30mm Hot Rolled Asphalt (Cl 910). Binder: 40mm Dense Asphalt Concrete (Cl 912). Sub-base: 200mm Type 1 Granular Material (Cl 803).	Cycling by Design, Table 3.29

4 Methodology

This report will focus on two principal route corridors;

- Option A will consider crossing the River Tweed at Fotheringham Bridge and continuing on the north side and;
- Option B staying on the south side of the River Tweed crossing at Priorsford Bridge.

The routes will be assessed using a variety of criteria, so that a holistic appraisal can be undertaken which will identify key issues and constraints. At the end of the assessment, all the evidence will be reviewed, with a preferred option recommended for development.

Both options will utilise the same corridor between Priorsford Bridge and Gytes Park and therefore this section will be considered separately.

Figure 2 Initial Option Routes

4.1 Mapping and Topographical Survey Data

To inform the initial selection of potential route alignment options, a desktop review of available mapping including Ordnance Survey (OS) Maps was undertaken. In the review of available mapping, key areas were identified as requiring more detailed topographical surveys to be undertaken to confirm physical constraints.

The topographical survey was carried out in August 2023. Areas outside the topographical survey extents were assessed using OS maps & Lidar data. If these sections are to be taken forward to detailed design then it is recommended that a topographical survey is undertaken to verify the initial concept designs.

4.2 Public Utilities

Public utility records were requested for the area and received in May 2023 and were used to identify any potential constraints or issues which may impact, or be impacted by, potential route alignments. The utility search returned multiple records and these have been considered in developing the options. As the project develops the utility companies shall be notified under the New Roads and Street Works Act (NRSWA) to discuss any protection or diversion requirements as part of the works.

4.3 GIS Records

A review of the SBCs Geographical Information Systems (GIS) was undertaken to identify any further constraints including designated landscapes, tree protection orders, scheduled monuments etc. Both route options are located within the Peebles Conservation Area and the River Tweed is a Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI). These will need to be considered and consulted upon in the pre-planning design phase.

A number of other constraints were identified from the GIS screening including planning applications for other developments and protected structures. These are discussed for the specifically affected sections in the Route Options Appraisal.

4.4 Land Ownership

A land ownership search has been undertaken along the various routes and title deeds have been acquired through Scotland's Land Information Service (ScotLIS) for any titles that may be impacted by the works.

4.5 Site Walkover

The objective of the site walkover was to confirm physical constraints, such as road geometry/sightlines, property boundaries, vehicle access points, surface water drainage, public utilities, trees and landscaping.

Using the routes established in the initial option development, constraints were observed and noted during the site walkover.

4.6 LTN 1/20 Cycling Level of Service Tool

The potential routes were assessed using 'Cycling Level of Service Tool' taken from Department for Transport's Cycle Infrastructure Design LTN 1/20. The assessment will give the routes a scoreto provide an indication of the quality of the route post interventions.

4.7 Cost Estimates

A high-level cost estimate for the engineering works required for both routes will be undertaken to allow a comparison. The cost estimate has been prepared using approximate estimating rates extracted from '*SPON's Civil Engineering and Highway Works Price Book 2023'* and/or equivalent Contractor rates from similar recent projects.

4.8 Public Consultation

The public were consulted on the project and the proposed options to gain an understanding of the desires from the community. This was done in a combination of stakeholder meetings, in person consultation days and online surveys.

5 Route Option Appraisal

5.1 Option A – Northern Route

The route options and key constraints are summarised below. All draft designs and recommendations will be subject to a planning application and further consultation with the community and project stakeholders.

The proposed route options and constraint are shown on drawings in **Appendix B**.

5.1.1 Constraint N.1 - Fotheringham Bridge

The route will commence on the southside of Fotheringham Bridge. Fotheringham Bridge is a 30m span steel truss footbridge across the River Tweed, the structure is not listed. The width of the bridge is 1.8m wide which is below the absolute minimum width for a shared path of 2.5m. The cost for replacing the bridge would be in the region of [redacted] and would be disproportionate to the constraint. Therefore, it is recommended that the bridge is left in-situ and discussions are undertaken with Sustrans on deviating from their standards at this location. There may be a requirement for warning and/or cyclist dismount signage as a result in the narrow width.

5.1.2 Constraint N.2 – Fotheringham Bridge Accessible Ramps

The approaches to the bridge are ramped for accessibility and not designed for cyclists. The ramp on the south side has a prominent pothole that would need to be repaired. The ramp on the north side is on the western side of the bridge and therefore not on the desire line. It is recommended that this is reconfigured to improve the desire line for cyclists.

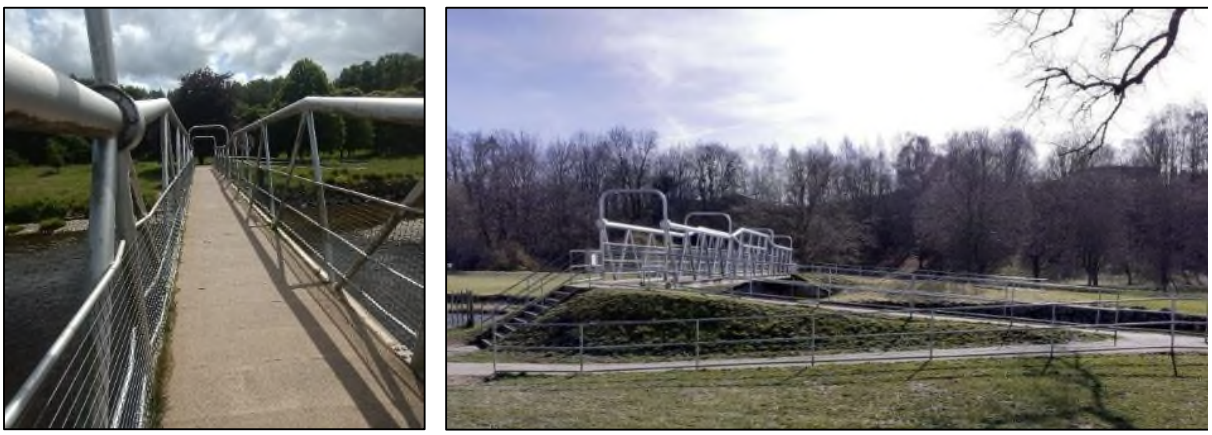

Figure 3 Photos showing Fotheringham Bridge and Accessible Ramp Configuration

5.1.3 Constraint N.3 – Haylodge Park

The section through Haylodge Park has various options for siting the path and potential options for compensatory tree planting and flood storage. There are potential options to connect to the existing path network and improve links to Kingsland Primary School.

The proposed design by SWP recommends and new link path from the bridge that continues to the embankment approximately 30m north of the bridge with new stairs connecting to the existing riverside path (see Figure 4**)**. By providing this path link, it will align with aspirations in the Tweed Riverside Park and provide connectivity to the wider park and schools.

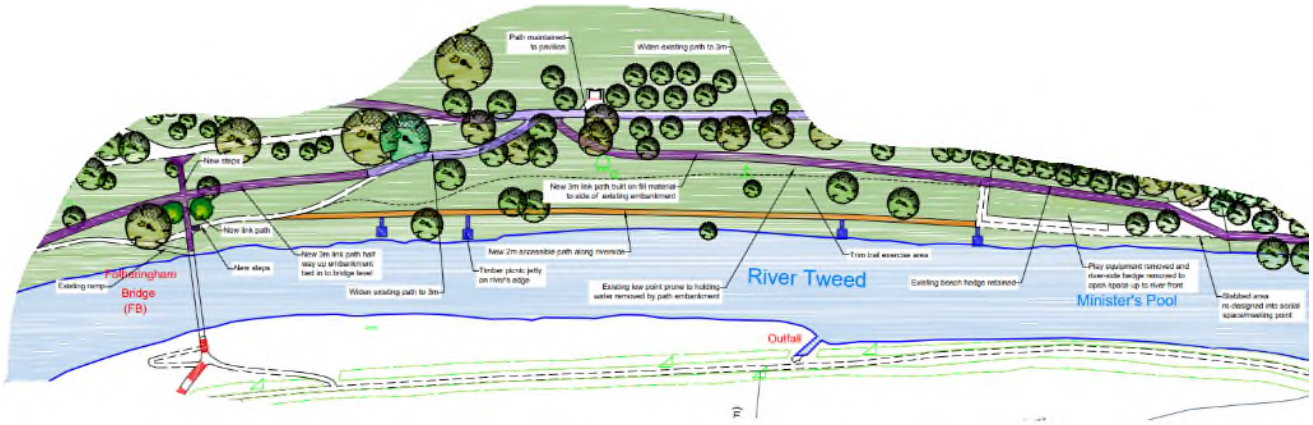

Figure 4 Extract from Sterry-Walters Partnership

SWP design proposes that the existing informal path is upgraded to provide a 2m accessible path with picnic jettys along the riverside. This would still require a new ramp to Fotheringham Bridge in order to make this path accessible. However, as it is a more direct east/west route, it is likely that this section will also be used by cyclists, in particular west bound cyclists, increasing the likelihood of conflict. Therefore, it is recommended that the existing informal path is upgraded to a segregated 4m wide cycle path along this section.

The final alignment through this section will be developed and consulted upon at the detailed design stage.

5.1.4 Constraint N.4, N.5, N.6 and N.7 The Hump

The most significant challenge with the northern route is the section adjacent to Hay Lodge Hospital referred to as ‘the hump’. The western approach to the hump climbs a set of stairs to an elevated section of path that sits between a row of mature trees and masonry wall on the riverside and Hay Lodge Hospital on the northern side. The path varies in width between 1.4 and 1.7m wide. There is a private surface water outfall and headwall located at the western end of the path.

The path then passes through a masonry boundary wall which is part of the Category B listed building Old Town, Hay Lodge constructed circa 1770, before returning to riverside level via another set of steps. In this area there is a private boundary wall that supports a foul water pipe, a surface water outfall and part of the embankment is currently supported by gabion baskets.

Figure 5 The Hump Western and Eastern Approaches

There are two historical concepts for undertaking works at the Hump.

The first concept is to remove the trees and embankment to create a low-level path and provide retaining walls to support the ground per the JBA design concepts below. A similar concept was also proposed by ENV Consulting Engineers. These options would have significant landscape and ecological impacts as a result of the tree clearance.

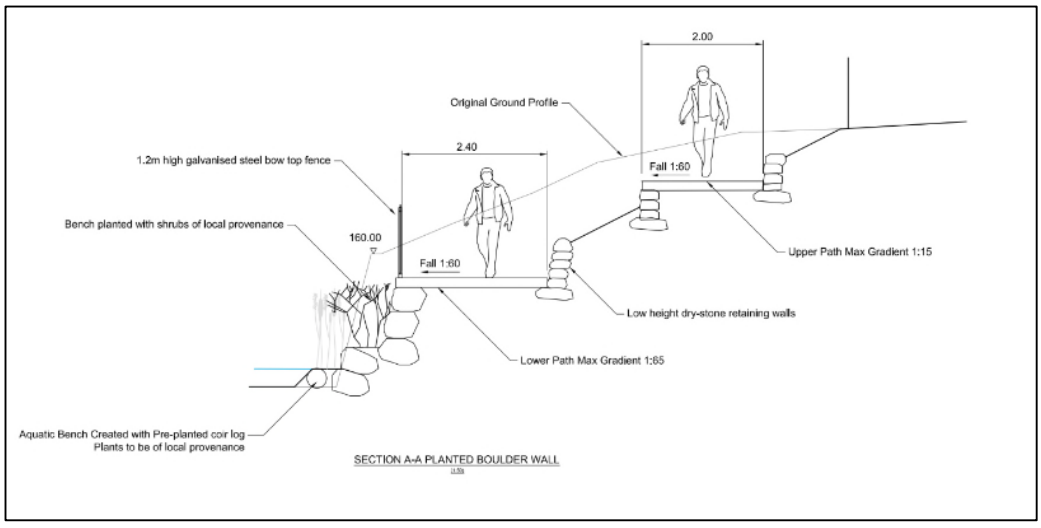

Figure 6 Extract from JBA drawing 5122-E-001 (JBA Consulting , 2011)

The second concept is to attempt to preserve the trees by building ramps either side of the constraint. This would require ramps at 10% gradient for an extended duration and perpendicular geometry that would not be conducive to encourage cycling or encourage accessibility. The design would also require significant retaining walls to support the approach ramps and would reduce the volume of the functional flood plain. This concept was explored by SBC engineers in 2019.

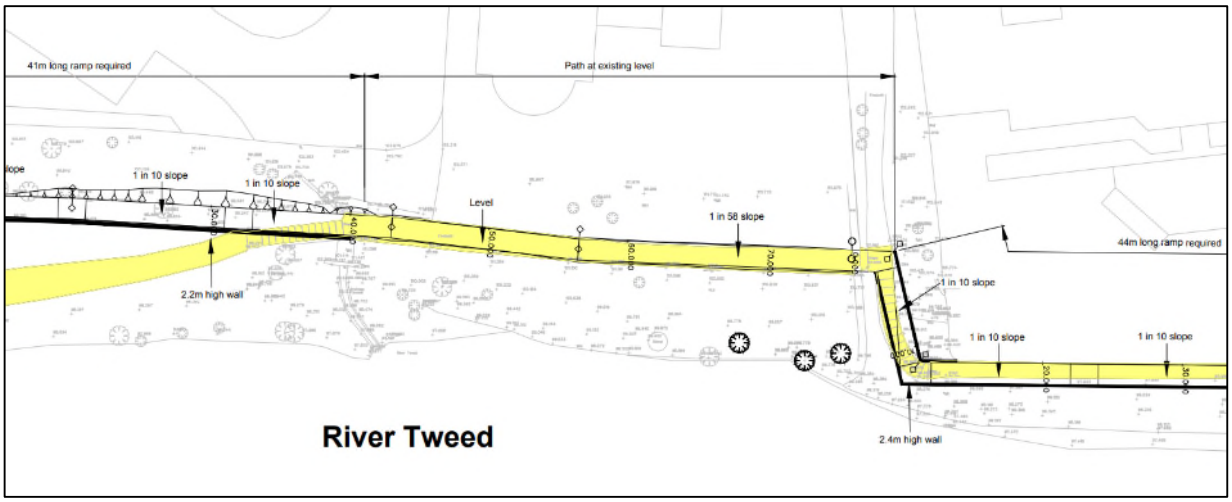

Figure 7 Extract from SBC design drawings showing 10% approach ramps and retaining walls

As part of this study an alternative concept has been developed that aims to retain most of the existing trees and minimise the ecological impacts but still provide an accessible solution. To accommodate this some deviations from the design standards set out in **Table 1** would be required.

This option proposes to create ramps on each approach to raise the path up to 0.5m below existing path level and maintain most trees by using a root bridge construction method. The ramps would require 7% gradients for approximately 40m on either side of the approaches up to the path level which will be approximately 0.5m lower than the existing path level. Both approaches will require a retaining wall structures and further studies will be required to assess the stability of the existing river walls. The top-level path will require a root bridge structure. This will have auger piles that are micro-sited between tree roots and a deck spanned between at regular intervals. There may be a requirement for a small dwarf retaining wall between the new path and the Hay Lodge Hospital grounds, however it is recommended that discussions are undertaken with the landowner to discuss accommodation works and potential for grading this at a 1 in 2 slope and replacing the existing wooden fence.

The design would require retaining walls to support the approach ramps and would take up additional volume of the functional flood plain. Therefore, it is recommended that a flood risk assessment and modelling is undertaken to assess the impact of the proposal.

After

Before

Figure 8 Visualisations of a 7% ramp and root bridge solution before and after (Eastern Approach)

After

Before

Figure 9 Visualisations of a 7% ramp and root bridge solution before and after (Western Approach)

After

Before

Figure 10 Visualisations of a 7% ramp and root bridge solution before and after (Elevation View)

5.1.5 Constraint N.8 and N.9 – Greenside and Eddleston Water Footbridge

To the west of Eddleston Water there is a raised stepped area leading to Greenside road and parking area. It is proposed to make this section more accessible by raising the path locally around this area and ramping down to the riverside level to remove the steps. The SWP design proposes to achieve this with a node and decorative seating over-looking the weir.

There is an existing footbridge over Eddleston Water with an approximate span of 10m and width of 1.2m. It is recommended that this bridge is replaced with a wider bridge to comply with the minimum width requirements in **Table 1**. The replacement bridge could be mounted at a higher level than the existing bridge therefore increasing the soffit level and improving the capacity of Eddleston Water. This would assist with aligning the bridge level with the raised level of path at Greenside.

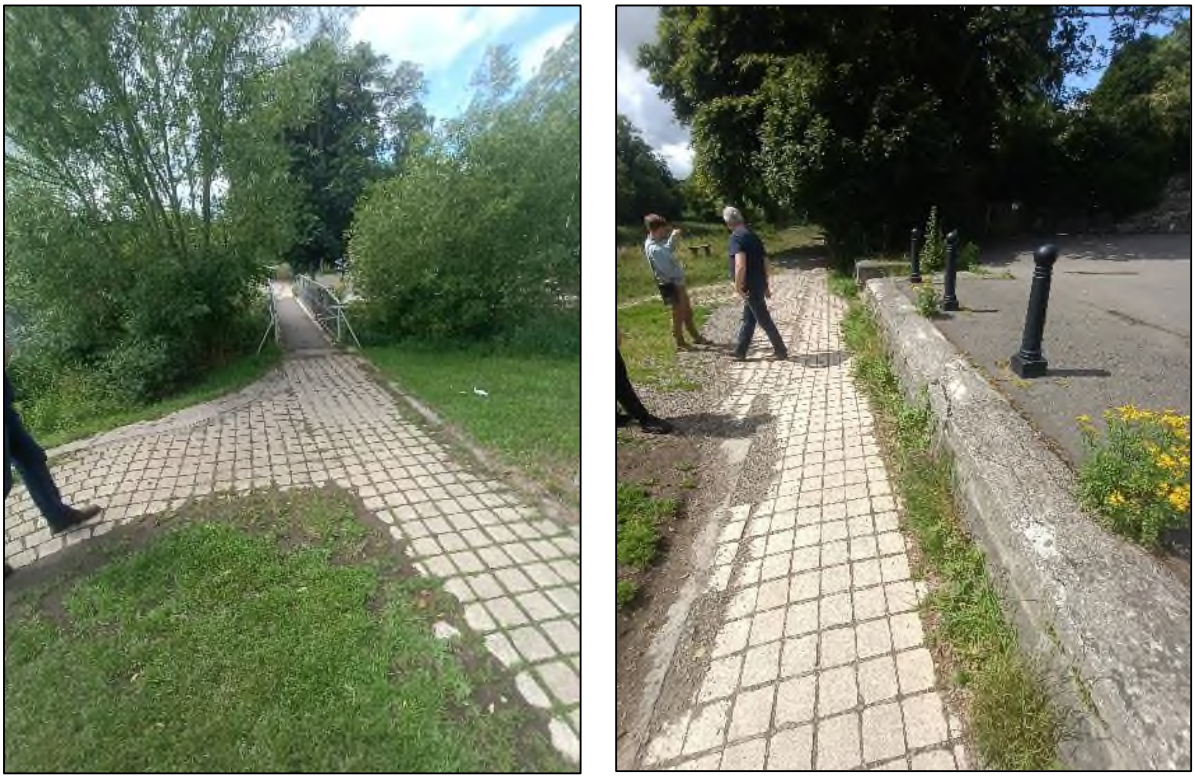

Figure 11 Greenside level difference and Eddleston Water Footbridge

5.1.6 Constraint N.10 – Memorial Garden and Brick Planters

The path passes a memorial garden consisting of brick planters. The SWP design proposes that this area could be populated with outdoor gym equipment. Through the consultation process as part of this study, it is noted that this area is a memorial garden that has recently been redeveloped. It is proposed that the path is routed around the memorial garden. To accommodate a consistent path width through this area a couple of trees may need to removed. This would need assessed at detailed design stage and if it is not practical the path may be rerouted via the one-way car park access to the north of the swimming pool as shown in Option 2 in the figure below.

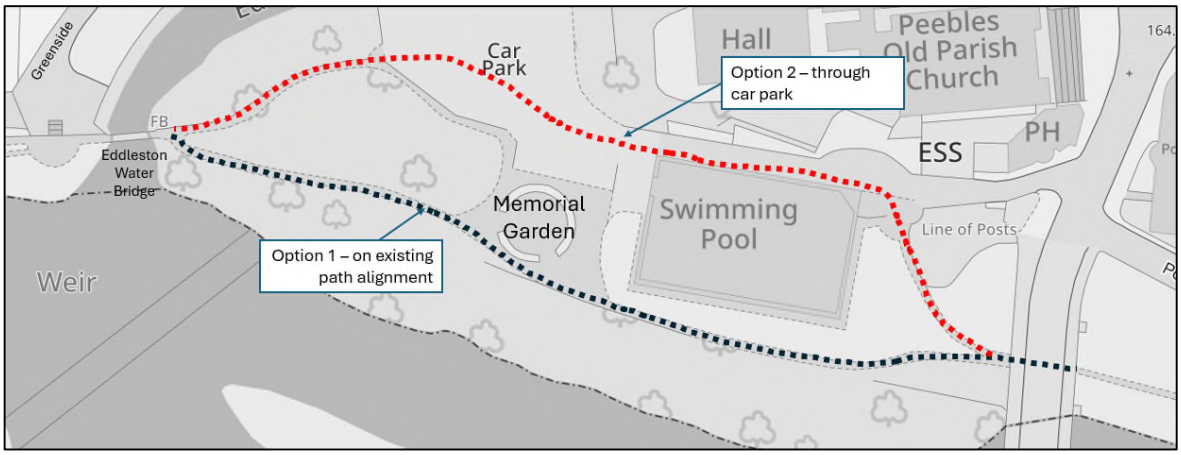

Figure 12 Potential routes around the Swimming Pool

To the east of the swimming there is an existing block paved path that connects to the swimming pool car park and the access road to the A72. At the point where this path diverges from the main path there is a brick flower bed that currently causes issues with erosion when the river is in spate. It is recommended that this flower bed is removed as part of the works.

5.1.7 Constraint N.11 – Tweed Bridge, B7062 Road Bridge

The path continues under the masonry arch of the Tweed Bridge that carries the B7062 over the River Tweed and is the only road bridge connecting the north and south of the river in Peebles. Tweed Bridge is a category A listed structure and is adopted by SBC. The existing masonry arch has 7.45m width with a sufficient vertical clearance of 2.3m to allow a cyclepath under the majority of its width. There are some visible cracks and loose mortar that would need to be repaired as part of the works.

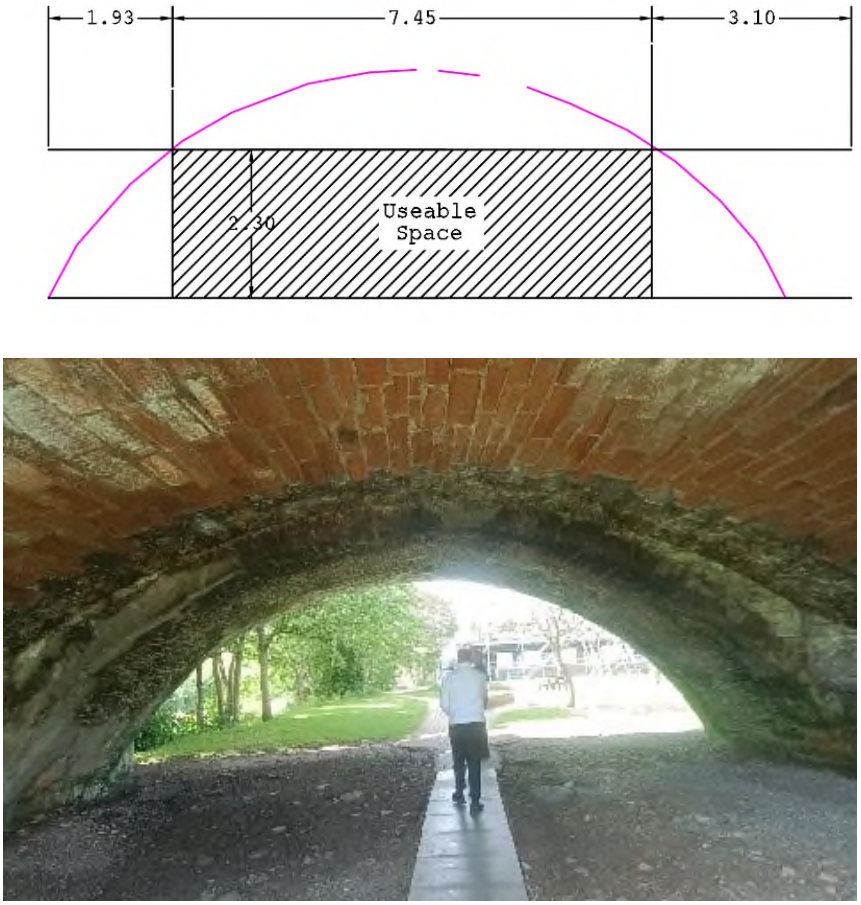

Figure 13 Tweed Bridge Existing Cross Section

5.1.8 Constraint N.12 Tweed Green

From Tweed Bridge to Priorsford Bridge, the route passes through Tweed Green which is a popular park adjacent to the High Street. The existing main path is lined with mature trees on the south side and traditional drying green posts on the north. The SWP design proposes a 3m wide shared path through the park. However, it is envisaged that this section may be one of the busiest sections of the route through the town and therefore it is recommended that the path is widened to a minimum of 4m and cyclist and pedestrians are segregated. It is recommended that the widening of the path occurs on the north side of the existing path, to prevent construction on the root protection zones and also to minimise impact on the flood plain. The drying posts may need to be relocated 0.5m to avoid the earthwork embankment as part of the widening works. The viability of this would need to be consulted with SBC heritage officers.

Figure 14 Tweed Green

As the path approaches Priorsford Bridge, the path is constrained in width between the northern abutment and pedestrian approach ramp too Priorsford Bridge and the boundary wall to Priorsford House. There is a right of access between the ramp and the boundary wall for vehicular access to Priorsford Villa which will need to be maintained. There would be insufficient width to maintain a 4m wide segregated path through this section and in addition there may be multiple movements from pedestrians/cyclists entering to and from the bridge and Tweed Green. Therefore it is recommended that this section is shared.

5.2 Option B – Southern Route

The route options and key constraints are summarised below. All draft designs and recommendations will be subject to a planning application and further consultation with the community and project stakeholders.

The proposed route options and constraint are shown on drawings in **Appendix B**.

5.2.1 Constraint S.1 – Fotheringham Bridge Approach Ramps

The approaches to the bridge are ramped for accessibility and not designed for cyclists. The ramp on the south side has a prominent pothole that would need to be repaired. The ramp on the north side is on the western side of the bridge and therefore not on the desire line. It is recommended that this is reconfigured to improve the desire line for cyclists.

5.2.2 Constraint S.2 – Existing Historical Railway Path

This section is constrained. There is a narrow existing bound path on top of an earthwork embankment. The existing path width is approximately 1.2m wide and would need to be widened on the south side to prevent any impact to the functional flood plain. On the south side there are several trees that would need to be removed to accommodate the path widening and also a burn that would need to be realigned to accommodate the earthworks. This would require significant imported fill material to be brought to site which would be expensive and have a cumulative impact on the flood plain. Therefore, it is recommended that a flood risk assessment and modelling is undertaken to assess the impact of the proposal.

There are a couple of viewing platforms looking out on to the Tweed and these could be enhanced as part of the works. The viewing platform opposite Hay Lodge Park has an otter holt and would likely require a license to work within 30m of this location.

Figure 15 Existing Historical Railway Path

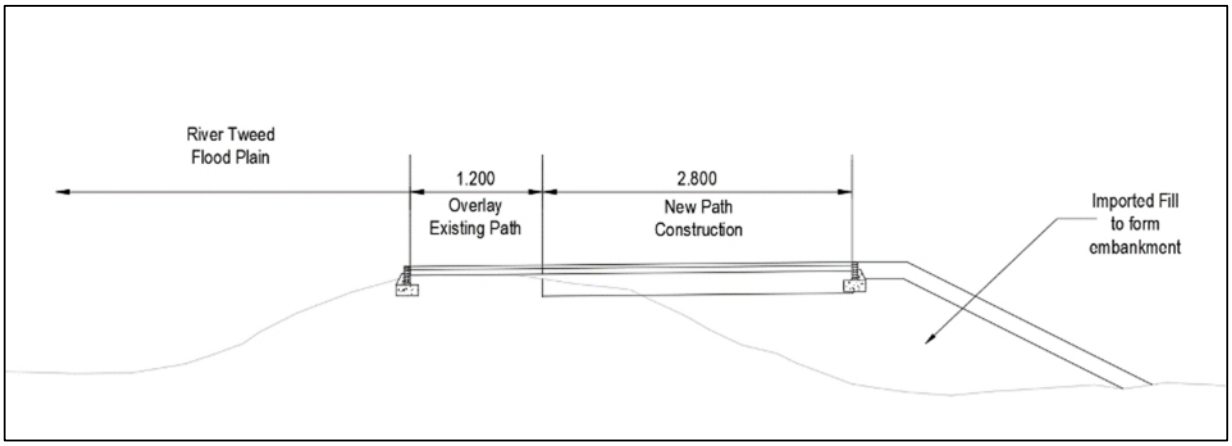

Figure 16 Typical Path Widening Cross Section

5.2.3 Constraint S.3 – Potential Alternative Route Through Woodland

A potential alternative and less disruptive route would be to use the existing informal path through the wooded area to create a segregate cycle route. This was highlighted in the Mott MacDonald (Mott MacDonald, 2022). This would keep the cyclists and the pedestrians segregated, reduce the amount of imported fill material and reduce the amount of tree clearance.

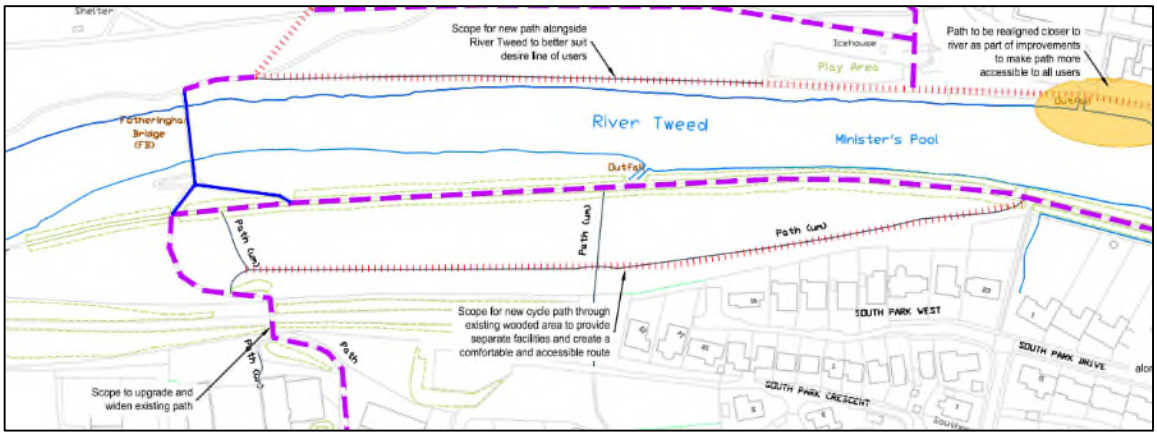

Figure 17 Mott MacDonald Plan showing the potential alternative route

However, the section would be enclosed in trees and remote from other areas of activity. This may lead to social safety and perceived vulnerability of users, in particular as the path is envisaged to be used by children as part of everyday journeys. Therefore, this section would require a detailed risk assessment and potentially illuminated to reduce this risk.

Figure 18 Existing unbound path through woodland

5.2.4 Constraint S.4 – Narrow Path to the Cauld

This section is highly constrained and the existing path is bound by third party boundaries to the south and the riverside to the north. The existing path width varies between 1.6m – 2.0m wide and there are limited opportunities to widen this without obtaining third party land or constructing within the river. Therefore there may be a requirement to have a deviation from the width standards highlighted in **Table 1** for a significant length.

Figure 19 Narrow path between third party land and river edge

5.2.5 Constraint S.5 – Retaining Wall

Along the north boundary of the development site (refer to Constraint S.6) the path splits and is divided by a retaining wall. The lower path on the riverside continues at grade before climbing to the carriageway level on the B7062 Tweed Bridge via steps. The upper path ramps up to the B7062 Tweed Bridge via an accessible ramp. The retaining wall has a height differential of up to 3m. This limits any potential widening at this section without significant structural works.

Figure 20 Retaining Wall Adjacent to B7062

5.2.6 Constraint S.6 – Path Interface with Development Site

The proposed path will interface with the housing development site adjacent to the B7062. The site has full planning permission (24/00071/FUL) that indicates that the path will remain at 2.0m wide through the development and that there will be a significant level difference between the path and the housing platform that would make any potential widening difficult. As the site already has full planning permission it would be challenging to amend this layout at this stage.

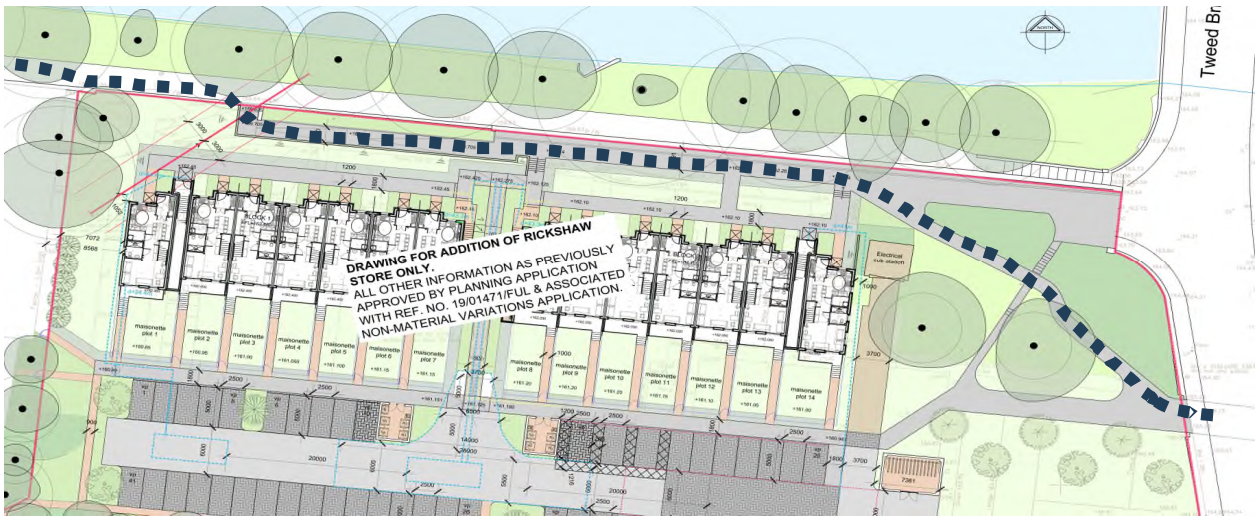

Figure 21 Extract from Planning Application 24/00071/FUL (CSY Architects, 2024) (proposed route shown in black)

5.2.7 Constraint S.7 – Historic Railway Underbridge

The proposed path would pass under the historic railway underbridge that carries the B7062. The bridge is owned and maintained by National Highways as part of the Historical Railway Estate (HRE). The current underbridge has a notice displayed on the wall stating that the bridge

is not dedicated to the public. The route does form part of the permissive/customary path network however formal approvals may be required with HRE to provide a promoted active travel path under this structure.

Figure 22 Historic Railway Underbridge

5.2.8 Constraint S.8 – Historic Railway Embankment

The path would continue on top of a historical railway embankment that is elevated from the surrounding ground by up to 2m. The current width of the embankment varies between 4.3 and 5.0m wide with an existing paved path approximately 1.2m wide on its top. Due to the steepness of the embankments and the level difference with the surrounding land a restraint barrier may be required. This would need to be considered in detail during the design process.

Figure 23 Historical Railway Embankment

5.2.9 Constraint S.9 – Priorsford Bridge

The route would need to cross Priorsford Bridge to continue eastwards on the route. Priorsford Bridge is a Category B listed structure with a width of 1.4m. There are cyclist dismount signs in advance of the bridge on both sides. Due to the bridges listed status, there are limited options to widen this structure, and this would remain a key constraint on this route.

Figure 24 Priorsford Bridge Crossing

5.3 Shared Section – Priorsford Bridge to Gytes Park

This route section will be common to both the north and the south routes and therefore has been considered separately. Key constraints are summarised below. This section will be constructed under permitted development rights.

5.3.1 Constraint A.1 - Riverside Corridor

This section continues along the riverside and is bound by the allotments and playfield boundaries to the north. There is sufficient flat embankment to construct a 4 – 4.5m wide segregated path along this section.. There are a number of benches along this section that would need to be relocated locally relative to the path widening. It is recommended that the cycle lane is located on the north side of the path to keep cyclists away from the rivers edge and to avoid conflict with proposed bench buildouts

There are a number of utilities and covers along this section, these are to be raised and incorporated in the path construction. It is not anticipated that any diversionary works would be required to accommodate the path.

5.3.2 Constraint A.2 and A.3 – Boundary Fences and Sports Pitches

The existing boundary fences are round top palisade fencing mounted on top of masonry capping stones that have been mortared on top of a concrete foundations between the allotments and Gytes Park. Sections of this fencing have been dislodged and damaged through repeated flooding. The adjacent Peebles Rugby Club have a section of ball net fencing and have replaced some of the dislodged fencing with heras fencing along this section.

It is recommended that the existing fencing and capping stones are removed and replaced with robust palisade fencing in post ST5 concrete foundations. This will strengthen the fence and also allow for panels to be replaced if damaged. It is proposed that the extent of fencing is reduced as much as practical to reduce the maintenance burden of the fencing. The extent of fencing will be agreed with the adjacent rugby club. A half batter kerb will be installed on the north side of the path at same level as the existing capping stones to replicate the existing conditions on functional flood plain.

The path continues adjacent to the sports pitches. There are existing flood lighting columns adjacent to the path. It is proposed that the path does not widen into the field to the north, to minimise the risk of anything conflict with the ducting and minimise encroachment into the playing area.

All proposals are to be in discussion and agreement with Peebles Rugby Club and other stakeholders.

Figure 25 Riverside Corridor and Damaged Fencing

5.3.3 Constraint A.4 – Existing Tree Root Damage

A section of the existing path adjacent to the Gytes Leisure Centre has existing tree root damage. It is recommended that these sections are excavated (using appropriate methods not to damage the roots) and investigated. If there is sufficient clearance, the path is to be relaid using a root protection geoweb subbase and reinstated with asphalt construction. If the existing roots are too shallow, then the path would need to be raised locally or realigned to provide sufficient cover/clearance from the roots. Any path widening is to occur on the eastern side of the path away from the trees and have an appropriate root protection detail in the subbase.

5.4 LTN 1/20 Assessment

The potential routes were assessed using 'Cycling Level of Service Tool' taken from Department for Transport's Cycle Infrastructure Design LTN 1/20. This guidance aligns with the core design principles in Cycling by Design and provides a good framework for assessing potential route options. The completed assessments for each route option can be found in **Appendix C**.

The assessment looks at five core design criteria which can be summarised as:

- Cohesion – this looks at the connections along and between routes, continuity and wayfinding provisions along the route, as well as the density of the network across the town.

- Directness – this looks at the distance of the route, the number of times a cyclist has to stop or give way, the length of delays at junctions and from other traffic, as well as the gradients of the route.

- Safety – takes into consideration sections of route on the carriageway and vehicle speeds and volumes as well as risk of collision, complexity of the design of the route and any other uses adjacent to it which may result in collision and the severity of such.

- Comfort – this includes factors such as the quality of the surface, effective width without conflict, and wayfinding on the route.

- Attractiveness – this looks at if the route is perceived as safe and usable, how the route impacts on pedestrians, street clutter such as signage required for the route, and availability of cycle parking.

The routes were evaluated using the scoring system shown within the assessment tables; 0(Red), 1(Amber), 2(Green). The North Route scored stronger with a score of 26 and the South Route scored 20. This is largely down to the South route having shared sections for extended durations (due to restricted width) where speed may be reduced and may result in potential conflict with pedestrians and other kerbside activity.

5.5 Cost Estimate

At this stage of the feasibility study, high-level construction cost estimates can be provided for each route option. The cost estimate has been prepared using approximate estimating rates extracted from '*SPON's Civil Engineering and Highway Works Price Book 2023'* and/or equivalent Contractor rates from similar recent projects.

No formal assessment of risk has been undertaken in preparing the cost estimates due to the limited information available at present. As the North and South side routes are at the feasibility stage, an estimate including Optimism Bias of 44%, as per Table 3 of the Supplementary Green Book Guidance for a standard Civil Engineering Project has been applied to reflect the uncertainties. Standard risk allowance has been applied to the section from Priorsford to the Gytes to account for the more developed design proposal. The cost estimates do not include allowances for:

- Complementary measures (speed limit reduction, road lighting, road signage).
- Costs associated with land/property acquisition.
- Statutory approvals/ consents.
- Surveys and investigations.
- Design and works supervision fees.
- Value Added Tax (VAT) and inflation, as the date of construction is yet to be established.

The outline construction cost estimate for the route options are summarised below;

- North Route Option - [redacted]
- South Route Option - [redacted]
- Priorsford Bridge to Gytes Park - [redacted]

It should be noted that costs could increase or decrease once more information becomes available and the design process advances. Consequently, the estimates provided should only be used as a broad indication of construction costs for the proposed works.

5.6 Public Consultation

A public consultation event was held on 28th June 2024 and was supplemented with an online survey using Citizen Space which was live for four weeks. The key themes and statistics are that were gathered from the online survey are shown in **Appendix D** and are summarised below;

- 98% respondents envisage using the path with 75% using it for recreational purposes and 17% using it to commute to either work or school.
- 65% of respondents are in favour of the north route option, 19% in favour of the south route option and 16% have no preference.
- 55% of respondents are in favour of a segregated path, 31% in favour of a shared use path and 13% have no preference.
- 67% of respondents are in favour of the ramped option at the 'hump' on the north route as opposed to 18% in favour of a low-level path and 15% have no preference. Key concerns at this area are for the preservation of trees.
- 50% of respondents are in favour of the alternative route through the woods on the south route as opposed to 31% in favour of widening and upgrading the existing path, 18% have no preference.

6 Conclusions and Recommendations

6.1 Route Option Assessment Conclusion

The northern route consists of existing paved sections and unpaved grass sections adjacent to the river edge. The majority of the route will consist of new path construction and widening of the existing path at grade resulting in minimal earthworks. Fotheringham Bridge will require a departure from standard due to the reduced width, however this is considered isolated and still safe for mounted travel. The most significant challenge with the northern route is the section adjacent to Hay Lodge Hospital referred to as 'the hump' however there have multiple detailed studies on this constraint and there is considered to be viable solutions to navigate this. The preferred option is to create ramps on each approach to raise the path up to 0.5m below existing path level and maintain most trees by using a root bridge construction method. It is likely that this section will also require a departure from standard for gradients on the approach ramps

There will also be a requirement to replace the existing footbridge over Eddleston Water and this would also present an opportunity to level and replace the existing steps adjacent to Greenside with an accessible ramp.

The route scored higher in the LTN1/20 scoring but was estimated to be marginally more expensive (although note that the cost estimates are high level at this stage). This route was also the preferred option as identified in the public consultation.

The south route has an existing paved path constructed upon an embankment that would require extensive earthworks and tree clearance to widen. An alternative option to divert cyclists through the woodland north of South Parks as highlighted in previous studies would need careful consideration to provide a safe link. There are sections of the path (e.g. the Cauld) that would be too narrow with limited options to widen the path due to private land boundaries and the proximity to the river edge. The section adjacent to the B7062 would require interfacing with the housing development site that already has an approved planning layout with a 2.0m wide path only. In addition, the route would need to cross under the Historical Railways Estate asset, which is owned and maintained National Highways. The route would also need to cross to the north side to rejoin the path at Priorsford Bridge which is a Category B listed structure. This is a significant constraint which would require cyclists to dismount to cross and can result in conflict when multiple users are trying to cross at once.

A number of these constraints are unlikely to have a practical engineering solution that will be achievable resulting in departures from standard for extended lengths. It is therefore considered that the route would be less coherent and provide a lower level of service. This is shown in the LTN1/20 scoring. The route was also least popular in the public consultation.

Therefore, considering the above it is recommended that the North Route is taken forward for further consideration.

The section between Priorsford Bridge and Gytes Park is shared between both routes and therefore it is recommended that this section is constructed initially. This would provide a direct off-carriageway link with Peebles town centre (Tweed Green) and the Tweed Valley Railway Path. This section will be constructed under permitted development but key project stakeholders and Council officers will be consulted on the proposals prior to implementation.

6.2 Recommendations

- Undertake detailed design for the section between Priorsford Bridge and the Gytes. With the intention of constructing this section before the end of the financial year 24/25.
- Pre-planning application consultation with SBC planning officers for the section between Fotheringham Bridge and Priorsford Bridge to gain a formal understanding of the studies and surveys required to support a planning application.
- Undertake detailed 3D ground modelling of the works at the hump and undertake flood modelling to ascertain the impact on the flood corridor.
- Develop detailed designs and visualisations of the preferred option to consult with the public and project stakeholders.
- Submit a planning application and complete appropriate studies to discharge suspensive conditions.
- Procure and construct the works in stages to align with project budgets over the coming financials years.

7 References

CSY Architects. (2024, 08 01). *Planning Application Documents 24/00071/FUL.* Retrieved from Scottish Borders Council Planning Portal: https://eplanning.scotborders.gov.uk/online-applications/applicationDetails.do?activeTab=documents&keyVal=S7HWR2NTFXC00

Cunningham, J. (2008). *Peebles and Innerleithen Link path study.* Sustrans.

JBA Consulting . (2011). *Riverside Path Haylodge, Peebles - Design Report.* Tweedgreen.

Mott MacDonald. (2022). *Peebles Links Paths Feasibility Study.*

Paths for All. (2024). *Paths for All*. Retrieved from Lowland Path Construction Guide: https://www.pathsforall.org.uk/resource/lowland-path-construction-guide

SCOTS. (2015). *National Roads Development Guide.* SCOTS.

Scottish Borders Council. (2023). *Destination Tweed The Gytes to Tweed Valley Railway Path Feasbility Report.*

Sustrans. (2024). *Sustrans*. Retrieved from Sustrans traffic-free routes and greenways design guide: https://www.sustrans.org.uk/for-professionals/infrastructure/sustrans-traffic-free-routes-and-greenways-design-guide

Transport Scotland. (2021). *Cycling By Design rev 0.* Transport Scotland.

8 Appendices

Appendix A – Previous Studies

Appendix A.1 – JBA Consulting Design

Appendix A.2 – ENV Consulting Design

Appendix A.3 – SBC Design Hay Lodge Park

Appendix A.4 – Mott MacDonald/Sterry Walters Partnership Designs

Appendix A.5 – Fairhurst Designs

Appendix A.6 – SBC Design Riverside Path

Appendix B – Route Option Drawings

Appendix C – LTN1/20 Appraisal

Appendix D – Public Consultation Key Findings