

LLANFOIST TO ABERGAVENNY
PEDESTRAIN FEASIBILITY STUDY
WELTAG OPTION APPRAISAL

Monmouthshire County Council

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Draft

Llanfoist to Abergavenny Pedestrian Link Feasibility Study

WELTAG OPTION APPRAISAL

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Prepared for
Monmouthshire County Council
PO Box 106
Caldicot
NP26 9AN

Prepared by
Parsons Brinckerhoff
29 Cathedral Road
Cardiff
CF11 9HA

www.pbworld.com

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AUTHORISATION SHEET

Client: Monmouthshire County Council
Project: Llanfoist to Abergavenny Pedestrian Feasibility Route
Address: PO Box 106, Caldicot, NP26 9AN

PREPARED BY

Name: Rachael Davies
Position: Graduate Engineer
Date: July 2014

AGREED BY

Name: Graeme Smith
Position: Principal Engineer
Date: July 2014

AUTHORISED FOR ISSUE

Name: David Martin
Position: Regional Associate
Date: July 2014

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1 INTRODUCTION

1.1 Purpose of this Report

1.1.1 This report summarises the findings of the Welsh Transport Appraisal Guidance (WelTAG)¹ Appraisal for the Llanfoist to Abergavenny Pedestrian Link feasibility study, outlining methodology, option development, appraisal and conclusions.

1.1.2 The structure of this report is as follows:

- Section 1: Introduction
- Section 2: WelTAG Planning Stage
- Section 3: Option Development
- Section 4: WelTAG Stage 1 Appraisal
- Section 5: Summary and Recommendations
- Section 6: Project Viability and Business Case

1.2 Study Background

1.2.1 Parsons Brinckerhoff (PB) was appointed by Monmouthshire County Council (MCC) to develop, assess and cost alternative outline options to improve facilities for pedestrians and cyclists travelling between Llanfoist and Abergavenny, particularly the means of crossing the River Usk, and to recommend a strategy for implementing improvements promptly and economically.

1.2.2 Options will be developed and appraised against the WelTAG assessment areas, i.e. Environment, Economy and Society, as well as study Transport Planning Objectives (TPOs), which will be defined during the WelTAG Planning Stage to align with relevant policies and identified issues & opportunities.

1.3 Relevant Policies

Regional Transport Plan

1.3.1 The commissioned project aims to have a beneficial impact on the following Regional Transport Plan objectives:

- To improve access for all to a wide range of services and facilities including employment and business, education and training, health care, tourism and leisure activities;
- To improve the sustainability of transport by improving the range and quality of, and awareness about, transport options, including those which improve health and well being;
- To improve the efficiency and reliability of the movement of people and freight within and beyond South East Wales to support the regional economy;
- To improve integration between policies, service provision and modes of transport in south East Wales;

- To implement measures which promote a positive contribution to improving air quality and reducing the adverse impact of transport on health and climate change, including reducing carbon emissions;
- To implement measures which help to reduce the negative impact of transport across the region on the natural and built environment including biodiversity; and
- To improve road safety and personal security in South East Wales.

Local Development Plan

1.3.2 The Adopted Monmouthshire Local Development Plan (LDP) February 2014 covers the period 2011 – 2021. Land to the north of the River Usk which is within the study area has been allocated as an area of amenity importance within the LDP. Land to the south of the River Usk also within the study area is unallocated within the LDP.

1.3.3 The Llanfoist pedestrian and cycling river crossing has been identified as a transport route and scheme that is likely to be implemented within the plan period or needs to be protected to avoid longer term aspirations being prejudiced.

Active Travel Bill

1.3.4 The Active Travel Bill is anticipated to be in place from mid 2014 following the current consultation stage. The Bill will require all Local Authorities to:

- Develop existing Route Maps, and
- Develop Integrated Network Maps to identify aspirations for future develop over the next 15 years.

The Active Travel Bill will place a duty on all Local Authorities to build infrastructure (cycleways/footpaths/facilities) to demonstrate a year on year improvement in quality and extent of Active Travel Infrastructure.

The outcome of the Llanfoist to Abergavenny Pedestrian Link study will be a key element of Monmouthshire CC's Integrated Network Map for future Active Travel Infrastructure.

1.4 Study Location and Current Situation

- 1.4.1 The study area for the Llanfoist to Abergavenny Pedestrian Link study is illustrated in Plate 1. Further details are provided within Figure 1 of this report.

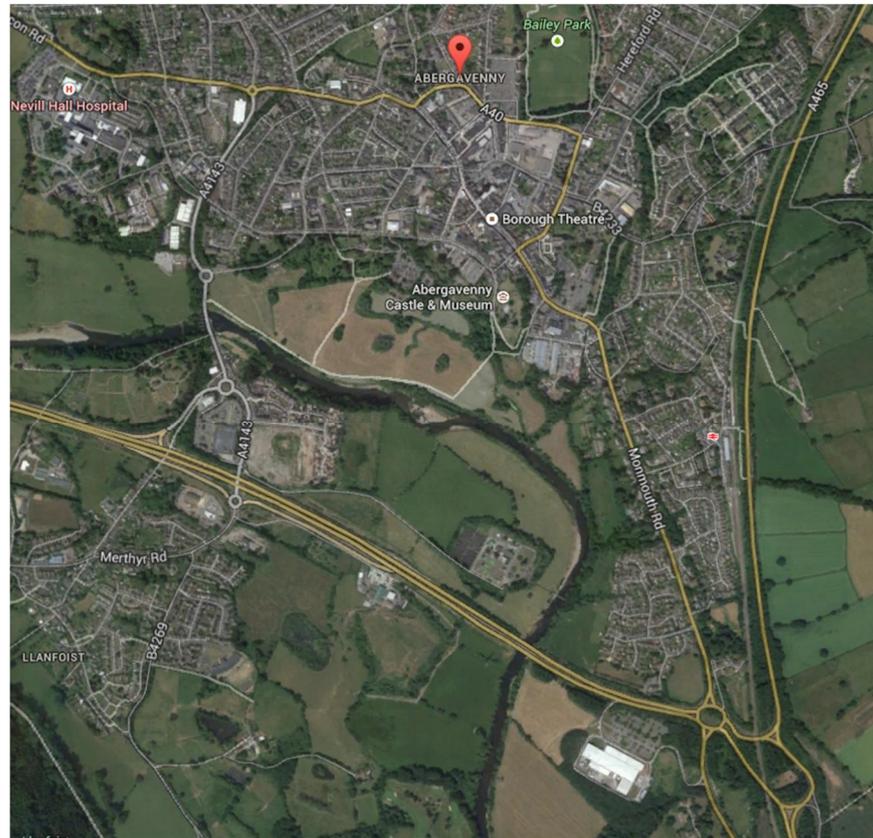


Plate 1: Study Area

- 1.4.2 Llanfoist village is situated on the south bank of the River Usk, near the town of Abergavenny on the opposite bank. The distance between Llanfoist Post Office and Abergavenny Town Hall is 4km. Recent and ongoing residential and commercial development in Llanfoist between the river and the A465 Heads of the Valleys dual carriageway has increased the local population, and resulted in the two communities being almost conjoined.
- 1.4.3 The only highway connecting the two communities is the A4143 Merthyr Road which crosses the river at Llanfoist Bridge, a listed Scheduled Ancient Monument. Part of the existing structure was built in the 17th century, and subsequently widened in the 19th century. The carriageway width is typically 6m. There is only one footway, on the downstream side, typically no more than 1.5 m wide.
- 1.4.4 As well as catering for traffic between the town and Llanfoist and the neighbouring villages of Govilon and Gilwern, Merthyr Road is also the main approach route into town for traffic approaching eastbound along the A465 from the Heads of the Valleys area, and vice versa. In addition it is signed as an alternative route for light traffic travelling eastbound on the A40 in order to avoid the town centre. Traffic surveys in 2003 indicated AADT flows of 10,580 southbound and 11,377 northbound.

1.4.5 The bridge lies on National Cycle Network route 46 between Merthyr Tydfil and Hereford and thus forms an important leisure link between Abergavenny town centre, the World Heritage Site (of Blaenavon) and Iron Mountain Trail. The volume of traffic, the proximity of southbound vehicles, particularly HGVs, to the kerbline, combined with the limited footway (which is sometimes occupied by fishermen casting their rods from the bridge), create unappealing and unsafe facilities for pedestrians. Anecdotal evidence suggests many people who would otherwise walk between town and village are deterred solely due to the poor pedestrian facilities on the bridge. Those with impaired mobility are particularly disadvantaged by the current pedestrian facilities.

1.4.6 The Abergavenny to Merthyr Tydfil Railway was carried on a high level bridge adjacent to and upstream from the existing road bridge. After the line was closed in 1958 the bridge was demolished, believed to be in the 1960s. Parts of the approach embankments and accommodation bridges are still extant.

1.5 Recent History

1.5.1 Originally there was a footway on the upstream side of the road bridge, with metal railings as a parapet, but no footway on the downstream side. It is believed that the footway was transferred to the downstream side, and the metal railings on the upstream side replaced with a masonry parapet, sometime in the late 1960s or early 1970s. The existing footway links more logically with the connecting footway network and pedestrian desire lines.

1.5.2 Circa 2003 the Welsh Assembly Government (WAG) commenced investigations into the possibility of upgrading the A4143 to form part of the A40 trunk road, in order to enable the existing A40 through the centre of Abergavenny to be detrunked. WAG desired to widen the carriageway to more readily accommodate HGVs. In a leaflet publicising a public exhibition in September 2003 it was stated:-

'It is proposed to remove the existing footbridge from the eastside of Usk Bridge (Tudor Bridge) and provide a separate footbridge/cycleway on the west side, detached from the bridge. The highway will be widened to cater for the volume of existing and transferred traffic.'

1.5.3 Subsequently plans were prepared showing how a metal walkway might be cantilevered onto the existing structure on the outside of the west side parapet. It is believed that CADW objected to any suggestion of cantilevering a footway onto the eastside parapet so as not to detract from the view of the bridge when observed from Castle Meadows.

1.5.4 It is understood the Environment Agency's (EA) preference was for the cantilevered footway to be on the downstream side, as at times of high flood the water level is higher on the upstream side than downstream. Hence the EA required the design to include gates at either end of the footway which could be closed during exceptionally high water levels.

1.5.5 MCC expressed concern that the natural pedestrian desire line was on the downstream side of the bridge, and sought assurances from WAG that pelican crossings would be provided across Merthyr Road on both sides of the bridge. In the event WAG decided not to pursue the scheme, and neither this scheme nor any alternative has been developed since.

2 PLANNING STAGE

2.1 Overview

2.1.1 The planning stage is regarded as the first phase within the overall planning and implementation cycle of all transportation schemes within Wales. This involves consideration of the transport problems and opportunities and the generation of transport planning objectives relevant to the study that will form the focus for the study.

2.1.2 The approach to the Planning Stage is summarised in WelTAG as follows:

“The planning process has to start from problems and opportunities, then set objectives, then identify the best ways of achieving these. An important implication of this is that the planner has to consider a diverse range of alternatives, and not start from an implicit objective of promoting a particular proposal.”

2.1.3 In line with the WelTAG Planning Stage approach, Parsons Brinckerhoff has undertaken a desk based assessment of previous studies and other relevant literature to identify and collate the key transport problems and opportunities for an improved shared use cycle and pedestrian transport link between Llanfoist and Abergavenny.

2.1.4 This section discusses the problems and opportunities with the existing facilities within the study area and identifies transport planning objectives and possible solutions that address all, or part, of the overall study objective.

2.2 Identified Problems and Opportunities

2.2.1 Through consultation with MCC representatives and key stakeholders, and in combination with site visits and desk-based assessments, the following key scheme problems and opportunities have been identified.

2.2.2 The identified problems are listed in Table 2.1 below.

Ref	Key Problems
1	Existing link between Llanfoist and Abergavenny - Llanfoist Bridge offers no segregated pedestrian or cycling facilities
2	Location of scheme in close proximity / over to a sensitive statutory designated site SAC/SSSI.
3	Potential for extreme flooding associated with the floodplain of Castle Meadows. A large proportion of the study area has been identified as being high risk from flooding.
4	Road safety issues along existing road links
5	Existing routes along Merthyr Road (includes NCN46) are not tailored to encourage walking and cycling as a reasonable alternative to the car

Table 2.1: Key Problems

2.2.3 The identified opportunities are listed in Table 2.2 below,

Ref	Key Opportunities
1	Improve existing National Cycle Network provision
2	Lower levels of car dependency, reducing carbon footprint, pollution and congestion
3	Encourage more tourism into the region by enhancing the attractiveness and accessibility of local visitor attractions
4	Improve access between communities, services and businesses within the study area
5	Improve the environment, health and social wellbeing of the communities within the study area
6	Improve connectivity between Llanfoist and Abergavenny

Table 2.2: Key Opportunities

2.3 Transport Planning Objectives

2.3.1 The Transport Planning Objectives (TPOs) were derived for this study with direct reference to key issues and constraints, and with reference to the WelTAG principles and regional objectives, ensuring that TPOs do not presuppose particular options.

2.3.2 The Transport Planning Objectives for the Study are:

- **TPO 1** – To develop a shared use route that will contribute toward the aims of the Active Travel Bill, encouraging healthier lifestyles and wellbeing for all;
- **TPO 2** – To encourage economic regeneration, job creation and inward investment by establishing a shared use trail that links existing businesses and key destinations;
- **TPO 3** – To reduce the road traffic accident rate of cyclists and pedestrians along Merthyr Road from pre 2013 levels;
- **TPO 4** – To increase level of usage for non-car forms of transport for shorter journeys between communities, amenities and services within the study area;
- **TPO 5** – To provide a positive contribution to improving air quality and reducing the negative impacts of transport across the region on the natural and built environment

2.4 Transport Planning Objectives Testing

2.4.1 Section 4.4 of the WelTAG requires that all Transport Planning Objectives be subjected to a process of appraisal against the identified problems and opportunities, the National Transport Strategy Outcomes and related Strategic Priorities to ensure that they are fit for purpose and meet the intended needs of the scheme.

2.4.2 Table 2.3 demonstrates how the TPOs address or progress relevant issues identified during the WelTAG Planning Stage. The relationship between each TPO and each identified problem or opportunity is denoted as follows:

- ✓ Minor Fit
- ✓✓ Moderate Fit
- ✓✓✓ Major Fit

The table demonstrates that each of the identified problems and opportunities are directly addressed by at least one TPO. TPO1, develop a shared use route that will contribute toward the aims of the Active Travel Bill, encouraging healthier lifestyles and wellbeing for all, is the stand out performer when appraised against the problems and opportunities.

2.4.3 Table 2.4 and 2.5 show how each transport planning objective relates to the Welsh Transport Strategy and Regional Strategic Priorities respectively.

2.4.4 In this instance TPO 4, increase level of usage for non-car forms of transport for shorter journeys between communities, amenities and services within the study area, performs the best against the Welsh Transport Strategy Outcomes, with TPO 1 scoring the highest in the Regional Strategic Priorities appraisal.

Table 2.3 How Transport Planning Objectives meet Identified Problems and Opportunities

TPOs	TPO1 Develop a shared use route that will encourage healthier lifestyles and well being	TPO2 Encourage economic regeneration and inward investment by establishing a shared use path that links existing businesses	TPO3 Reduce the road traffic accident rate of cyclists and pedestrians along Merthyr Road from 2013 levels	TPO4 Increase level of usage for non car forms of transport for journeys between communities	TPO5 Contribution to reducing the negative impacts of transport on the natural and built environment	TOTAL
Problems						
P1	✓✓	✓✓	✓✓✓	✓✓	-	9
P2	-	-	-	-	✓✓✓	3
P3	-	-	-	-	✓✓	2
P4	✓✓	✓	✓✓✓	✓✓	-	7
P5	✓✓✓	✓✓	✓✓	✓✓	✓✓	11
Opportunities						
O1	✓✓	✓	✓✓	✓✓	-	7
O2	✓✓	✓	✓	✓✓✓	✓✓✓	10
O3	✓✓	✓✓✓	✓✓	✓✓	-	9
O4	✓✓	✓✓	✓✓	✓	-	7
O5	✓✓	✓	✓✓	✓	✓✓✓	9
O6	✓✓	✓✓	✓	✓	-	6
Total	19	15	17	16	13	

Table 2.4 How the Developed TPOs Relate to Wales Transport Strategy Outcomes

Key	Transport Planning Objectives (TPOs)					
	TPO 1	TPO 2	TPO 3	TPO 4	TPO 5	TOTAL
✓ Minor Fit						
✓✓ Moderate Fit						
✓✓✓ Major Fit						
Wales Transport Strategy Outcomes						
Social Outcomes						
Improve access to healthcare	✓✓	✓	✓	✓✓✓	✓	8
Improve access to education, training and lifelong learning	✓✓	✓	✓	✓✓✓	✓	8
Improve access to shopping and leisure facilities	✓✓	✓✓	✓	✓✓✓	✓	9
Encourage healthy lifestyles	✓✓✓	✓	✓	✓✓	✓	8
Improve the actual and perceived safety of travel	✓✓	✓	✓✓✓	✓✓✓	✓	10
Economic Outcomes						
Improve access to employment opportunities	✓✓	✓✓✓	✓	✓✓✓	✓	10
Improve connectivity within Wales and internationally	✓✓✓	✓	✓✓	✓✓✓	✓	10
Improve the efficient, reliable and sustainable movement of people	✓✓✓	✓	✓✓	✓✓✓	✓	10
Improve the efficient, reliable and sustainable movement of freight	✓	✓	✓✓	✓	✓	6
Improve access to visitor attractions	✓✓✓	✓✓✓	✓✓	✓✓✓	✓	12
Environmental Outcomes						
Increase the use of more sustainable materials	✓✓✓	✓	✓	✓✓	✓✓	9
Reduce the contribution of transport to greenhouse gas emissions	✓	✓	✓	✓✓✓	✓✓✓	9
Adapt to the impacts of climate change	✓	✓	✓	✓✓	✓✓	7
Reduce the contribution of transport to air pollution and other harmful emissions	✓✓	✓✓	✓	✓✓	✓✓✓	8
Improve the impact of transport on the local environment	✓✓✓	✓✓	✓	✓✓	✓✓✓	11
Improve the effect of transport on our heritage	✓✓	✓	✓	✓	✓✓	6
Improve the impact of transport on biodiversity	✓	✓	✓	✓	✓✓	6
TOTAL	34	22	23	40	27	

Table 2.5 How the Developed TPOs Relate to Regional Transport Plan

Key	Transport Planning Objectives (TPOs)					
	TPO 1	TPO 2	TPO 3	TPO 4	TPO 5	TOTAL
✓ Minor Fit ✓✓ Moderate Fit ✓✓✓ Major Fit						
Strategic Priorities						
To improve access for all to a wide range of services and facilities including employment and business, education and training, health care, tourism and leisure activities	✓✓✓	✓✓✓	✓	✓✓	✓	10
To improve the sustainability of transport by improving the range and quality of, and awareness about, transport options, including those which improve health and well being	✓✓✓	✓✓	✓✓	✓✓✓	✓✓	12
To improve the efficiency and reliability of the movement of people and freight within and beyond South West Wales to support the regional economy	✓✓	✓✓✓	✓✓	✓✓	✓	9
To improve integration between policies, service provision and modes of transport in south West Wales	✓✓	✓✓	✓	✓✓	✓✓	8
To implement measures which promote a positive contribution to improving air quality and reducing the adverse impact of transport on health and climate change, including reducing carbon emissions	✓✓	✓	✓	✓✓	✓✓✓	9
To implement measures which help to reduce the negative impact of transport across the region on the natural and built environment including biodiversity	✓✓	✓	✓	✓✓	✓✓✓	9
To improve road safety and personal security in South West Wales	✓✓	✓	✓✓✓	✓	✓	8
TOTAL	16	13	10	14	12	

2.5 Potential Solutions

- 2.5.1 Following the agreement of the transport planning objectives and taking into account the performance of the objectives against the identified problems and opportunities and the national and regional strategic priorities, the study team considered potential solutions that have the potential to address all, or part, of the transport planning objectives.
- 2.5.2 The potential solutions are listed below in Table 2.6.
- 2.5.3 When considering options the study team have prioritised TPOs 1 and 4 as essential components in delivering the schemes objectives and TPOs 2, 3 and 5 as important contributors.

Ref	Potential Solutions
1	Create new link up stream of Llanfoist Bridge
2	Modify existing Llanfoist Bridge
3	Create new link downstream of Llanfoist Bridge adjacent to the White Castle Development
4	Create new link downstream of Llanfoist Bridge between the White Castle Development and the Sewerage works

Table 2.6: Potential Solutions

2.6 Summary

- 2.6.1 As described in Section 2.3, the transport planning objectives were derived for the Llanfoist to Abergavenny Pedestrian Link Study with direct reference to problems and opportunities identified and also with regard to relevant strategic priorities.
- 2.6.2 Four options, in the form of route corridors, have been identified that have the potential to address all, or part, of the transport planning objectives.

3 OPTION DEVELOPMENT

3.1 Option Development

3.1.1 Following the planning stage, the options taken forward for stage 1 appraisal needed to be further developed to allow a high level assessment of the potential options performance against the TPOs and Welsh Impact Areas. Options have been sufficiently developed into broad route corridors to illustrate the potential works footprint, impact and requirements. It should be noted that at this stage in the process the broad route corridors are simply suggestions on how, or where, the route corridor could lie.

3.1.2 A narrative of the potential core route options is provided in Sections 3.2 to 3.5 below and are also illustrated in Figure 2.

3.2 Option 1 – Create new link up stream of Llanfoist Bridge

3.2.1 Option 1 would provide a new shared use crossing approximately 70 to 80metres upstream of the Llanfoist Bridge on the approximate line of the former Abergavenny to Merthyr Railway bridge.

3.2.2 It is anticipated that the link would be created by utilising the existing pedestrian and cycle infrastructure along The Cutting in Llanfoist and connect into existing infrastructure along Merthyr Road in on the northern bank of the River Usk in Abergavenny. New approach paths connecting the new river crossing to the existing infrastructure would need to be constructed.

3.2.3 This option has an anticipated construction cost of £660k to £825k.

3.3 Option 2 – Modify existing Llanfoist Bridge

3.3.1 Option 2 would see the existing bridge modified, either by cantilevering or widening of a parapet, to provide sufficient width for a fully compliant shared use pedestrian and cycle link.

3.3.2 This option has an anticipated construction cost of £4.5M to £5M.

3.4 Option 3 – Create new link downstream of Llanfoist Bridge adjacent to the White Castle Development

3.4.1 Option 3 would see a new shared use crossing installed approximately 300metres east of the existing Llanfoist Bridge. The new crossing would link with existing footpaths on the north side of the River Usk, but will require the construction of a new footpath, approximately 300metres in length, on the southern side of the River Usk, behind Bridge Cottages and The Bridge public House in order to allow access to the bridge from the A4143 Merthyr Road. An additional access would be required to link the existing and new residential developments at Cooper Way. This access would involve construction of a ramp to compensate for the 10metre level difference between the man-made plateau where the residential area has been constructed and the river bank. The estimated span of the footbridge would be 42metres.

3.4.2 This option has an anticipated construction cost of £615k to £780k.

3.5 Option 4 - Create new link downstream of Llanfoist Bridge between the White Castle Development and the Sewerage works

3.5.1 Option 4 would follow the same principle as Option 3, but the crossing point would be located further downstream, approximately 800metres east of the Llanfoist Bridge. The new bridge would link to existing footpaths on the north side of the River Usk, but would require the construction of a number of new footpaths, approximately 750metres in total, on the southern side in order to link the footbridge with existing pedestrian links. The estimated span of the footbridge would be approximately 43m.

3.5.2 This option has an anticipated construction cost of £655k to £805k.

3.6 Costs Estimates

3.6.1 The anticipated construction costs stated above have been prepared based on data taken from comparable projects within Parsons Brinckerhoff's portfolio. This data has been updated using the Road Construction Tender Price Index (RCTPI) to provide baseline costs at Quarter 1 2014 prices.

3.6.2 The costs for each option are based on three principle rates:

- Shared use path constructed in the highway boundary, £261k per km;
- Shared use path constructed in 'green field' land, £217k per km; and
- 2.5 to 3m wide bridge, £3k per metre².

3.6.3 The rates allow for general construction works associated with this type of work, but do not allow for:

- Land acquisition;
- Utility diversions;
- Land owner accommodation works;
- Design, planning and project management costs; and
- Value Added Tax.

3.7 Option Refinement

3.7.1 Having defined the proposals into broad route corridors we are able to undertake a post-planning appraisal of the options asking questions such as;

- Does it work?
- Does it achieve the TPO's and address the strategic priorities?
- Can it be delivered?

3.7.2 Table 3.1 overleaf, shows how each proposal performs against a high-level assessment of the TPO's and their technical and operational feasibility. At this stage the appraisal is a qualitative assessment of how the proposals may perform if subject to a more vigorous examination at Stage 1. The proposals are categorised into whether they will have either a beneficial, neutral, or negative impact on the TPO's.

3.7.3 Options 1 and 2 are shown to perform poorly when appraised against the essential TPO's 1 and 4 and also offer technical difficulties and operational frailties. For these reasons it is recommended that these options do not best fit the aspirations of the scheme and should be discarded in favour of more creditable proposals for consideration at Stage 1.

Table 3.1 Pre-Stage 1 Option Testing

Option 1 - Create new link up stream of Llanfoist Bridge	
Transport Planning Objectives:	
TPO 1	Beneficial – would be accessible to all and benefit communities either side of the River Usk
TPO 2	Neutral – would provide a slight improvement in links to businesses either side of the River Usk, but unlikely to bring any notable opportunities for economic regeneration.
TPO 3	Neutral – likely to provide a marginal improvement to accident rates on Merthyr Road at the Llanfoist Bridge, but offers no benefits along remainder of route.
TPO 4	Neutral – unlikely to encourage a shift to non-motorised transport
TPO 5	Negative– likely to negatively contribute to the natural and built environment by further restricting flows through the Llanfoist Bridge and impacting on views.
Technical and Operational Feasibility: Technically and operationally feasible.	
Comments: This option does not provide sufficient benefits against the essential objective of TPO4 and is likely to have limited overall benefits. <i>It is therefore recommended that this option be discarded from further consideration</i>	

Option 2 - Modify existing Llanfoist Bridge	
Transport Planning Objectives:	
TPO 1	Beneficial – would be accessible to all and benefit communities either side of the River Usk
TPO 2	Neutral – would provide a slight improvement in links to businesses either side of the River Usk, but unlikely to bring any notable opportunities for economic regeneration.
TPO 3	Neutral – likely to provide a marginal improvement to accident rates on Merthyr Road at the Llanfoist Bridge, but offers no benefits along remainder of route.
TPO 4	Neutral – unlikely to encourage a shift to non-motorised transport
TPO 5	Negative– likely to negatively contribute to the natural and built environment by further restricting flows through the Llanfoist Bridge and impacting on views.
Technical and Operational Feasibility: Technically difficult to deliver, but not unfeasible.	
Comments: This option does not provide sufficient benefits against the essential objectives of TPO1 and TPO4 and likely to receive significant objections <i>It is therefore recommended that this option be discarded from further consideration</i>	

Option 3 - Create new link downstream of Llanfoist Bridge adjacent to the White Castle Development	
Transport Planning Objectives:	
TPO 1	Beneficial – would be accessible to all and benefit communities either side of the River Usk, whilst improving the accessibility of Castle Meadows
TPO 2	Beneficial - would provide a direct link to between the Whiste Castle development and Abergavenny town centre and provides an alternative route between Abergavenny and Llanfoist.
TPO 3	Beneficial – creation of a new traffic free route will remove conflicts between motorised and non-motorised users along Merthyr Road.
TPO 4	Beneficial – likely to encourage some degree of shift to non-motorised transport modes over short distances.
TPO 5	Neutral – likely to marginally contribute to reducing the negative impacts of transport on the natural and built environment if modal change is realised, but not great enough to provide an overall benefit
Technical and Operational Feasibility: Technically feasible and likely to achieve desired objectives.	
Comments: This option provides sufficient benefits against all essential and important objectives. <i>It is therefore recommended that this option be considered further at Stage 1</i>	

Option 4 - Create new link downstream of Llanfoist Bridge between the White Castle Development and the Sewerage works	
Transport Planning Objectives:	
TPO 1	Beneficial – would be accessible to all and benefit communities either side of the River Usk, whilst improving the accessibility of Castle Meadows
TPO 2	Beneficial - would provide a direct link to between the Whiste Castle development and Abergavenny town centre and provides an alternative route between Abergavenny and Llanfoist.
TPO 3	Beneficial – creation of a new traffic free route will remove conflicts between motorised and non-motorised users along Merthyr Road.
TPO 4	Beneficial – likely to encourage some degree of shift to non-motorised transport modes over short distances.
TPO 5	Neutral – likely to marginally contribute to reducing the negative impacts of transport on the natural and built environment if modal change is realised, but not great enough to provide an overall benefit
Technical and Operational Feasibility: Technically feasible and likely to achieve desired objectives.	
Comments: This option provides sufficient benefits against all essential and important objectives. <i>It is therefore recommended that this option be considered further at Stage 1</i>	

3.8 Summary

3.8.1 Solutions recommended for consideration at Stage 1 are:

- Option 3 - Create new link downstream of Llanfoist Bridge adjacent to the White Castle Development; and
- Option 4 - Create new link downstream of Llanfoist Bridge between the White Castle Development and the Sewerage works.

4 WELTAG STAGE 1 APPRAISAL

4.1 Methodology

4.1.1 The approach to the Stage 1 Appraisal is intended to screen and test the options against both the Transport Planning Objectives (TPOs) and the strategic Welsh Impact Areas policy to ensure that proposals address the problems identified and adhere to the Wales Transport Strategy.

4.1.2 The Welsh Impact Areas focus on the three pillars of sustainability that underlie policy in Wales. They are;

- Economy;
- Environment; and
- Society.

4.1.3 The Stage 1 appraisal aims to:

- Assess the extent to which the options resolve all or some of the problems, or take advantage of identified opportunities;
- Assess how well a proposal performs against the TPOs and Welsh Impact Areas;
- Test the strength of the overall case for the proposal;
- Evaluate deliverability and risk issues, as well as the likely level of support; and
- Avoid wasted resources on detailed information for proposals that perform poorly against the points above, eliminating them from further development.

4.2 Appraisal Criteria

4.2.1 The Stage 1 Appraisal requires the anticipated outcomes of each option to be presented using Appraisal Summary Tables (ASTs) for comparison of their performances against the appraisal criteria. The best performing options can then be identified and recommended for further development / implementation.

4.2.2 ASTs extract the core economic, environmental and social impacts from each transport proposal, under the respective appraisal criteria. As well as assessing how well a proposal performs against the Transport Planning Objectives and Welsh Impact Areas, an evaluation of deliverability, risk, and strength of local support is also carried out.

4.2.3 Qualitative measures for each appraisal principle are addressed on their own merits. The results of the assessment of the impact significance are summarised using a seven point scale to indicate the magnitude of the impact as shown on the proceeding page:

Large beneficial	(+++)
Moderate beneficial	(++)
Slight beneficial	(+)
Neutral	(0)
Slight adverse	(-)
Moderate adverse	(- -)
Large adverse	(- - -)

4.2.4 In considering the performance of an option against the Welsh Impact Areas the study team has considered the following aspects in relation to the proposal.

Economy	Environment	Society
Economic Efficiency	Noise	Personal Security
Economic Impacts	Local Air Quality	Transport Safety
	Greenhouse Gas Emissions	Permeability
	Landscape and Townscape	Physical Fitness
	Bio-diversity	Social Inclusion
	Heritage	Equality and Diversity
	Water Environment	

4.2.5 A detailed assessment criteria has been developed by the study team for each specialist topic. These criteria are used to measure option impacts and complete the Appraisal Summary Tables.

4.2.6 As suitable models are not currently available to undertake a quantitative assessment of the anticipated Economic Efficiency, due to the high level nature of the proposed route corridors, no quantitative assessment will be made on the likely economic benefits.

4.3 Noise Assessment Criteria

4.3.1 The category of noise was appraised on the condition of the number of people likely to be affected by an option as shown in Table 4.1:

Table 4.1 Noise Assessment Criteria

Significance of change	Description of change
Large adverse - - -	Increase in number of people annoyed >100
Moderate adverse - -	Increase in number of people annoyed 50 < 100
Slight adverse -	Increase in number of people annoyed 1 < 49
Neutral effect 0	Decrease/ Increase in number of people annoyed = 0
Slight beneficial +	Decrease in number of people annoyed 1 < 49
Moderate beneficial + +	Decrease in number of people annoyed 50 < 100
Large beneficial + + +	Decrease in number of people annoyed > 100

4.4 Air Quality Assessment Criteria

4.4.1 The assessment criteria for air quality were based on the change in concentration upon completion of a proposed option, as shown in Table 4.2:

Table 4.2 Air Quality Assessment Criteria

Change	Negative change (decrease in concentration)			No change	Positive change (increase in concentration)		
	Large	Moderate	Small	Neutral	Small	Moderate	Large
Concentration without scheme							
Well above objective	+++	+++	++	0	--	---	---
Above the objective	+++	++	++	0	--	--	---
Below objective	+++	++	+	0	-	--	---
Well below objective	++	+	+	0	-	-	--

4.5 Greenhouse Gas Emissions Assessment Criteria

4.5.1 The effect of greenhouse gas emissions on the surrounding environment are assessed as set out below in Table 4.3.

Table 4.3 Greenhouse Gas Emissions Assessment Criteria

Significance of change	Description of change
Large adverse - - -	Proposals are expected to substantially increase greenhouse gas emissions
Moderate adverse - -	Proposals are expected to moderately increase greenhouse gas emissions
Slight adverse -	Proposals are expected to slightly increase greenhouse gas emissions
Neutral effect 0	Proposals are not expected to increase or decrease greenhouse gas emissions
Slight beneficial +	Proposals are expected to slightly decrease greenhouse gas emissions
Moderate beneficial + +	Proposals are expected to moderately decrease greenhouse gas emissions
Large beneficial + + +	Proposals are expected to substantially decrease greenhouse gas emissions

4.6 Landscape and Townscape Assessment Criteria

4.6.1 The appraisal of landscape and townscape effects was based on the anticipated changes to the existing landscape or townscape characteristics as shown in Table 4.4

Table 4.4 Landscape and Townscape Assessment Criteria

Significance of change	Description of change
Large adverse effect - - -	<p>The proposals would result in exceptionally severe adverse impacts on the landscape or townscape because they:</p> <ul style="list-style-type: none"> are at complete variance with the landform, structure, scale and pattern of the landscape or townscape. are highly visual and extremely intrusive, destroying fine and valued views both into and across the area. would irrevocably damage or degrade, badly diminish or even destroy the integrity of characteristic features and elements and their setting. would cause a very high quality or highly vulnerable landscape or townscape to be irrevocably changed and its quality very considerably diminished. could not be mitigated for, that is, there are no measures that would protect or replace the loss of the landscape or townscape.
Moderate adverse effect - -	<p>The proposals are very damaging to the landscape or townscape in that they:</p> <ul style="list-style-type: none"> are at considerable variance with the landform, structure, scale and pattern of the landscape or townscape. are visually intrusive and would disrupt fine and valued views of the area. are likely to degrade, diminish or even destroy the integrity of a range of

Significance of change	Description of change
	<p>characteristic features and elements and their setting.</p> <ul style="list-style-type: none"> • will be substantially damaging to a high quality or highly vulnerable landscape, causing it to change and be considerably diminished in quality. • cannot be adequately mitigated.
<p>Minor adverse effect</p> <p>–</p>	<p>The proposals:</p> <ul style="list-style-type: none"> • are out of scale with the landscape or townscape, or at odds with the local pattern, structure and landform. • are visually intrusive and will adversely impact on views within the landscape or townscape • are not possible to fully mitigate, that is, mitigation will not prevent the scheme from adversely affecting the landscape or townscape in the longer term as some features of interest will be partly destroyed or their setting reduced or removed. • will have an adverse impact on a landscape or townscape of recognised quality or on vulnerable and important characteristic features or elements.
<p>Neutral effect</p> <p>0</p>	<p>The proposals:</p> <ul style="list-style-type: none"> • are in harmony with the scale, landform, structure and pattern of the landscape or townscape. • avoid being visually intrusive nor have an adverse effect on views within the landscape or townscape. • maintain existing landscape and townscape characters.
<p>Minor beneficial effect</p> <p>+</p>	<p>The proposals:</p> <ul style="list-style-type: none"> • fit well with the scale, landform, structure and pattern of the landscape or townscape. • provide an improvement to existing views within the landscape or townscape. • incorporate measures for mitigation to ensure that the scheme will blend in well with surrounding landscape or townscape features and elements • will enable some sense of place and scale to be restored through well-designed planting and mitigation measures. • maintain or enhance existing landscape or townscape characters.
<p>Moderate beneficial effect</p> <p>++</p>	<p>The proposals provide an opportunity to enhance the landscape because:</p> <ul style="list-style-type: none"> • they fit very well with the scale, landform, structure and pattern of the landscape or townscape. • provide visual interest or increase the attractiveness of existing views within the landscape or townscape. • there is potential, through mitigation, to enable the restoration of characteristic features or elements, partially lost or diminished as the result of earlier changes in the landscape or townscape. • they enable some sense of quality to be restored or enhanced through beneficial landscaping and sensitive design in a landscape that is not of any quality.
<p>Large beneficial effect</p> <p>+++</p>	<p>The proposals provide an opportunity to substantially enhance the landscape or townscape because:</p> <ul style="list-style-type: none"> • they enhance the scale, landform, structure and pattern of the landscape or townscape. • they create attractive key views and increase the attractiveness of existing views within the landscape or townscape. • there is potential, through mitigation, to enable the restoration of characteristic features or elements, completely lost or diminished as the result of earlier changes in the landscape or townscape, or to create beneficial features or elements where none exist. • they enable some sense of positive quality to be created through beneficial landscaping and sensitive design in a landscape or townscape that is recognised as being of low quality.

4.7 Biodiversity Assessment Criteria

4.7.1 In accordance with IEEM guidelines, there is a nine-point significance of impacts scale. To fit the nine points from IEEM into the seven-point scale used for WelTAG we will use the following:

WelTAG significance		IEEM significance
Large Adverse	- - -	Very Large or Large adverse
Moderate Adverse	- -	Moderate adverse
Slight Adverse	-	Slight adverse
Neutral Effect	0	Neutral
Slight Beneficial	+	Slight positive
Moderate Beneficial	+ +	Moderate positive
Large Beneficial	+ + +	Very Large or Large positive

4.7.2 Very High Value - International designations:

- Ramsar Sites (Convention on Wetlands of International Importance especially Waterfowl Habitat 1971)
- Special Areas of Conservation (EU Habitats Directive)
- Special Protection Areas (EU Birds Directive)
- European protected species (such as Otters, bats etc)
- Sites hosting habitats/species of (European) Community interest (annexes 1 & 2, Habitats Directive 1992)
- Sites hosting significant species populations under the Bonn Convention (Convention on the Conservation of Migratory Species of Wild Animals 1979)

Non-designated International features such as a large population of a bird that is rare on a European scale.

4.7.3 High Value - UK and national (Wales) designations:

- Sites of Special Scientific Interest (SSSIs; Wildlife & Countryside Act 1981 as amended and National Park and Access to the Countryside Act 1949).
- Geological Conservation Review (GCR) sites
- Sites hosting NERC protected species
- Sites hosting Red Data book species
- Sites hosting species not covered by the Berne Convention but in schedules 1, 5 and 8 of the Wildlife & Countryside Act 1981
- Species listed within Section 42 of the NERC Act.
- UK Priority Biodiversity Action Plan Species & Habitats (UK BAP)

Non-designated UK and national features such as a regionally high population of a nationally rare plant.

Regional designations, which cannot be reasonably substituted including:

- Important “inventory” sites (e.g. ancient semi-natural woodland and grassland inventories)
- JNCC Red List birds of conservation concern 2002 – 2007 (awaiting update)
- JNCC Wales list of birds of conservation concern 2002 – 2007 (awaiting update)

Non - designated regional features that cannot be reasonably substituted, such as a locally significant area of a regionally scarce complex natural habitat.

4.7.4 Medium Value - Regionally important designations that can be reasonably substituted including:

- Local Nature Reserves (LNRs; National Parks and Access to the Countryside Act 1949)
- Important “inventory” sites (e.g. ancient semi-natural woodland and grassland inventories)
- JNCC Red List of Birds of Conservation Concern 2002 – 2007 (awaiting update)
- JNCC Wales list of birds of conservation concern 2002 – 2007 (awaiting update)

Non – designated regional features that can be reasonably substituted such a locally significant area of regionally scarce simple, man-made habitat.

4.7.5 Lower Value - Locally designated sites such as County and District including:

- Sites of Importance to Nature Conservation (SINCs)/County Wildlife Series (CWSs)/ other local designations
- Regional Important Geological Sites (RIGs)
- Other sites (not described above) with Local Biodiversity Action Plan (LBAP) habitats/species
- Non-designated local features (County and District) such as a of SINC value where no SINCs have been designated in that region
- Parish/ward level sites of local nature conservation value or some other biodiversity or geological interest

4.7.6 Negligible Value - Sites or habitats with no listed or recognised nature conservation interest

4.7.7 The magnitude of impact will be assessed by the scale of loss or damage predicted to semi-natural vegetation, wildlife habitats and protected species. Significance will be assigned by looking at the magnitude of change to habitats and species of local and regional importance and assigning higher significance to greater loss of regionally important habitats. The following criteria for determining the magnitude of impact will be used and are based upon, or adapted from, those given in the guidance.

- **Very large or large adverse** - The proposal (either on its own or with other proposals) may adversely affect the integrity of the site, in terms of the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the population levels of species of interest. This includes large-scale damage or loss of a large proportion of a particular semi-natural habitat type or protected species habitat that is of regional/national importance or listed as a key habitat in the UK Biodiversity Action Plan Steering Group Report Loss of Protected Species.
- **Moderate adverse** - The site's integrity will not be adversely affected but the effect on the site is likely to be significant in terms of its ecological objectives. If, in the light of full information, it cannot be clearly demonstrated that the proposal will not have an adverse effect on integrity, then the impact should be assessed as major negative. This would apply in the case of damage or loss of a small proportion of a particular semi-natural habitat type or protected species habitat that is of local importance or listed as a key habitat in the UK Biodiversity Action Plan Steering Group Report.
- **Slight adverse** - Neither of the above apply, but some minor negative impact is evident. (In the case of Natura 2000 sites, a further appropriate assessment may be necessary if detailed plans are not yet available). This would apply in the case of damage or loss of common semi-natural vegetation, wildlife habitats or important wildlife but not protected species. Habitats are not locally or regionally important.
- **Neutral** - No observable impact in either direction. This would apply in the case of damage or minor losses of common types of habitats or common wildlife. Habitats are not locally or regionally important.
- **Slight positive** - Impacts which provide a slight net gain for biodiversity overall. This would apply in the case of an increase in the population of a species or area of habitat that is not locally or nationally important.
- **Moderate positive** - Impact which provide a net gain for biodiversity overall (but which will not positively affect the integrity of the site). This would include a small increase in the proportion of a semi-natural habitat or habitat of a protected species that is locally important or listed as a key habitat within the UK Biodiversity Action Plan Steering Group Report.
- **Very large or large positive** - Impact which provides a net gain for biodiversity overall in terms of increases in habitat diversity (and which may positively affect the integrity of the site). This would apply in the case of a large-scale increase in a protected species or habitat of a protected species that is locally important or listed as a key habitat within the UK Biodiversity Action Plan Steering Group Report.

4.8 Heritage Assessment Criteria

4.8.1 The assessment criteria for heritage are based on the anticipated change in condition upon completion of a proposed option, as shown in Tables 4.5a and 4.5b.

Table 4.5a Value of cultural heritage assets

Significance of change	Description of change
Very High	<ul style="list-style-type: none"> World Heritage Sites Buildings of international importance Assets of acknowledged international importance Assets that can contribute significantly to acknowledged international research objectives
High	<ul style="list-style-type: none"> Scheduled Ancient Monuments and sites of schedulable quality Grade I and II* Listed Buildings and Grade II or unlisted buildings worthy of those grades Conservation Areas containing nationally important buildings that contribute significantly to its historic character Assets that can contribute significantly to acknowledged national research objectives
Medium	<ul style="list-style-type: none"> Grade II Listed Buildings and unlisted buildings worthy of grade Conservation Areas containing regionally-important buildings that contribute significantly to its historic character Assets of regional value Assets that can contribute to regional research objectives
Low	<ul style="list-style-type: none"> Sites of local importance Assets compromised by poor preservation and/or poor survival of contextual associations Assets that can contribute to local research objectives
Negligible	<ul style="list-style-type: none"> Assets with very little or no surviving cultural heritage interest

Table 4.5b Factors in the assessment of the magnitude of impact

Significance of change	Description of change
Large adverse effect - - -	Complete or near-complete destruction of the site, feature or building; Alteration resulting in a fundamental negative change in our ability to understand and appreciate the resource and its historical context and setting.
Moderate adverse effect - -	Significant damage to the site, feature or building; Alteration resulting in a significant negative change in our ability to understand and appreciate the resource and its historical context and setting.
Minor adverse effect -	Limited damage to the site, feature or building; Alteration resulting in a small decrease in our ability to understand and appreciate the resource and its historical context and setting.
Neutral effect 0	Insignificant change or no material change to the site, feature or building; No real change in our ability to understand and appreciate the resource and its historical context and setting.
Minor beneficial effect +	Limited physical improvement to the site, feature or building; Alteration resulting in a small increase in our ability to understand and appreciate the resource and its historical context and setting.

Significance of change	Description of change
Moderate beneficial effect ++	Significant physical improvement to the site, feature or building; Alteration resulting in a significant positive change in our ability to understand and appreciate the resource and its historical context and setting.
Large beneficial effect +++	Fundamental physical improvement to the site, feature or building; Alteration resulting in a fundamental positive change in our ability to understand and appreciate the resource and its historical context and setting.
Unknown	Uncertain change, normally applying to an area in which the extent, character and quality of preservation of archaeological remains is not known. Also applies where the project design is not sufficiently developed for effects to be accurately determined.

4.9 Geology and Soils Assessment Criteria

4.9.1 The impact of construction works on the geology and soils are assessed as set out below in Table 4.6.

Table 4.6 Geology and Soils

Significance of change	Description of change
Large adverse ---	Where the scheme would cause a significant deterioration to the geological environment.
Moderate adverse --	Where the scheme would cause a moderate deterioration to the geological environment.
Slight adverse -	Where the scheme would cause a slight deterioration to the geological environment.
Neutral effect 0	Where the scheme would have no impact upon the geological environment.
Slight beneficial +	Where the scheme would cause a slight improvement to the geological environment.
Moderate beneficial ++	Where the scheme would cause a moderate improvement to the geological environment.
Large beneficial +++	Where the scheme would cause a significant improvement to the geological environment.

4.10 Water Assessment Criteria

4.10.1 The assessment criteria for water are based on the anticipated change in condition upon completion of a proposed option, as shown in Table 4.7.

Table 4.7 Water Assessment Criteria

Significance of change	Description of change
Large adverse - - -	Where the proposal may result in a degradation of the water environment because it results in predicted: <ul style="list-style-type: none"> very significant adverse impacts on at least one water attribute; highly significant adverse impacts on several water attributes.
Moderate adverse - -	Where the proposal may result in a degradation of the water environment, because it results in predicted: <ul style="list-style-type: none"> significant adverse impacts on at least one attribute, with insignificant predicted improvements to other attributes; very or highly significant adverse impacts, but with some improvements which are of a much lower significance and are insufficient positive impacts to offset the negative impacts of the proposal.
Slight adverse -	Where the proposal may result in a degradation of the water environment, because the predicted adverse impacts are of greater significance than the predicted improvements.
Neutral effect 0	Where the net impact of the proposals is neutral, because: <ul style="list-style-type: none"> they have no appreciable effect, either positive or negative, on the identified attributes; the proposals would result in a combination of effects, some positive and some negative, which balance to give an overall neutral impact. In most cases, these will be slight or moderate positive and negative impacts. It may be possible to balance impacts of greater significance. However, in these cases great care will be required to ensure that the impacts are comparable in terms of their potential environmental impacts and the perception of these impacts.
Slight beneficial +	Where the proposal provides an opportunity to enhance the water environment, because it provides improvements in water attributes, which are of greater significance than the adverse effects.
Moderate beneficial + +	Where the proposal provides an opportunity to enhance the water environment, because it results in predicted: <ul style="list-style-type: none"> significant improvements for at least one water attribute, with insignificant adverse impacts on other attributes; very or highly significant improvements, but with some adverse impacts of a much lower significance. The predicted improvements achieved by the proposal should greatly outweigh any potential negative impacts.
Large beneficial + + +	It is unlikely that any proposal incorporating the construction of a new transport route (road or rail) would fit into this category. However, proposals could have a large positive impact if it is predicted that it will result in a 'very' or 'highly' significant improvement to a water attribute(s), with insignificant adverse impacts on other water attributes.

4.11 Transport Safety Assessment Criteria

4.11.1 WelTAG refers to transport safety in relation to accidents on all modes including highway, railway and non-motorised modes such as cyclists, pedestrians or equestrians.

4.11.2 The appraisal criteria for transport safety at Stage 1 relates to whether the proposal is likely to have an effect on accident frequencies or their severity, whether positive or negative. The seven point criteria shown in table 4.8 can therefore be considered appropriate when completing the Appraisal Summary Table for each option.

Table 4.8 Transport Safety Assessment Criteria

Significance of change	Description of change
Large adverse - - -	Proposals are expected to substantially increase accident frequencies and / or their severity
Moderate adverse - -	Proposals are expected to moderately increase accident frequencies and / or their severity
Slight adverse -	Proposals are expected to slightly increase accident frequencies and / or their severity
Neutral effect 0	Proposals are not expected to increase or decrease accident frequencies or their severity
Slight beneficial +	Proposals are expected to slightly decrease accident frequencies and / or their severity
Moderate beneficial + +	Proposals are expected to moderately decrease accident frequencies and / or their severity
Large beneficial + + +	Proposals are expected to substantially decrease accident frequencies and / or their severity

4.12 Personal Security Assessment Criteria

4.12.1 Personal security is defined by WelTAG as: *'relative freedom from risk of fear of attack or robbery and extends to the transport user's personal possessions, including bicycles'*.

4.12.2 The WelTAG guidance recognises that it is not realistic to attempt to measure actual incidents of robbery or attack whilst in transit or waiting for public transport. WelTAG also recognises that it is *perceived* security that influences travel decisions.

4.12.3 The Stage 1 appraisal for personal security requires a general assessment of whether personal security is likely to improve, deteriorate or remain the same because of the implementation of the strategy or scheme. The seven point criteria shown in table 4.9 can therefore be considered appropriate when completing the Appraisal Summary Table for each option.

Table 4.9 Personal Security Assessment Criteria

Significance of change	Description of change
Large adverse - - -	Proposals are expected to substantially deteriorate personal security
Moderate adverse - -	Proposals are expected to moderately deteriorate personal security
Slight adverse -	Proposals are expected to slightly deteriorate personal security
Neutral effect 0	Proposals are not expected to improve or deteriorate personal security
Slight beneficial +	Proposals are expected to slightly improve personal security
Moderate beneficial + +	Proposals are expected to moderately improve personal security
Large beneficial + + +	Proposals are expected to substantially improve personal security

4.13 Permeability Assessment Criteria

- 4.13.1 The impact description given for permeability in WelTAG states: *'This aspect of social impacts is intended to capture the impact of a proposal upon the movement of people in its vicinity on foot, by bicycle and on horseback. In essence, this impact relates to any change in ease with which people in the affected area can travel by non-motorised modes'*.
- 4.13.2 WelTAG proceeds, *'the appraisal for Stage 1 should reflect the degree of detail available concerning the strategy or scheme. In most cases, it is expected that proposals will not be defined in such detail as would enable an appraisal to be carried out to the standard of Stage 2 but if such data is held, an approximate appraisal using WebTAG method is recommended'*.
- 4.13.3 As some work has already been carried out in relation to permeability within the Initial Environmental Assessment Report, it is proposed that the AST tables be completed using criteria which have drawn on the methodologies outlined in WebTAG Unit 3.6.2 and DMRB Volume 11, Part 3 Section 8 (Pedestrians and Others and Community Effects). The following seven point criteria shown in Table 4.10 can therefore be considered appropriate.

Table 4.10 Permeability Assessment Criteria

Significance of change	Description of change
Large adverse - - -	People are likely to be deterred from making non-motorised journeys to an extent sufficient to induce a reorganisation of their activities. In some cases, this could lead to a change in the location of centres of activity or to a permanent loss of access to certain facilities for a particular community. Those who make journeys by non-motorised means will experience considerable hindrance.
Moderate adverse - -	Some people, particularly children and old people, are likely to be dissuaded from making journeys by non-motorised means. For others, journeys will be longer or less attractive.
Slight adverse -	All people wishing to make movements by non-motorised means will be able to do so, but there will probably be some hindrance to movement
Neutral effect 0	Little or no hindrance to movement by non-motorised means.
Slight beneficial +	All people wishing to make movements by non-motorised means will be able to do so and there will probably be some encouragement to movement
Moderate beneficial + +	Some people, particularly children and old people, are likely to be encouraged to make journeys by non-motorised means. For others, journeys will be shorter or more attractive.
Large beneficial + + +	People are likely to be encouraged to make non-motorised journeys to an extent sufficient to induce a reorganisation of their activities. In some cases, this could lead to an increase use in the centres of activity or to new access to certain facilities for a particular community. Those who make journeys by non-motorised means will experience considerable encouragement.

4.14 Physical Fitness Assessment Criteria

- 4.14.1 The term physical fitness has been used in WelTAG because it is the aspect of general health that can be most closely associated with active travel. Health is a high priority in Wales and travelling on foot, by bicycle or horseback can make contributions towards physical fitness and well-being.
- 4.14.2 The Stage 1 appraisal for physical fitness states that *'it is sufficient for the planner to reach a reasoned view as to whether travel by active modes can be expected to increase or decrease as a result of the proposal. Where more can be said with confidence about any distribution implications, this should also be included in the short qualitative statement'*. The following seven point criteria shown in table 4.11 can therefore be considered appropriate when completing the Appraisal Summary Table for each option in relation to physical fitness.

Table 4.11 Physical Fitness Assessment Criteria

Significance of change	Description of change
Large adverse - - -	Proposals are expected to substantially decrease travel by active modes.
Moderate adverse - -	Proposals are expected to moderately decrease travel by active modes.
Slight adverse -	Proposals are expected to slightly decrease travel by active modes.
Neutral effect 0	Proposals are not expected to increase or decrease travel by active modes.
Slight beneficial +	Proposals are expected to slightly increase travel by active modes.
Moderate beneficial + +	Proposals are expected to moderately increase travel by active modes
Large beneficial + + +	Proposals are expected to substantially increase travel by active modes

4.15 Social Inclusion Assessment Criteria

- 4.15.1 The WelTAG appraisal guidance for social inclusion states that accessibility and social inclusion are synonymous. The former is the measurement of the relative ease with which people can get to their destinations and obtain the services that are important to them and the latter is the degree with which members of society are able to lead a full life. For a WelTAG transport appraisal however, social inclusion is defined as the degree to which a lack of accessibility hampers an individual's quality of life.
- 4.15.2 WelTAG guidance identifies eight indicators to be used in appraising social inclusion impacts, which are as follows:
1. Proportion of households within a) 60 and b) 90 minute non-motorised travel time threshold(s) of a National Health Service District General Hospital between 10:00 and 12:00 on a Tuesday;
 2. Proportion of people aged 16 – 74 within a) 60 and b) 90 minute non-motorised travel time threshold(s) of 'Learning Providers' (as recognised within the ELWa National Planning Framework) between 7:00 and 9:00 on a Tuesday
 3. Proportion of households within a) 60 and b) 90 minutes non-motorised travel time thresholds of a 'Key Centre' between 10:00 and 12:00 on a Tuesday; and
 4. Proportion of households within a) 60 and b) 90 minute non-motorised travel time thresholds of a 'Key Centre' between 20:00 and 22:00 on a Saturday.
- 4.15.3 The goal of the appraisal is to establish which of these numbers would change as a result of the scheme, and whether they would increase or decrease. Therefore, the following seven point criteria shown in table 4.12 can be considered appropriate when

completing the Appraisal Summary Table for each option in relation to Social Inclusion.

Table 4.12 Social Inclusion Assessment Criteria

Significance of change	Description of change
Large adverse - - -	Proposals are expected to substantially decrease the proportions in indicators 1 to 4.
Moderate adverse - -	Proposals are expected to moderately decrease the proportions in indicators 1 to 4.
Slight adverse -	Proposals are expected to slightly decrease the proportions in indicators 1 to 4.
Neutral effect 0	Proposals are not expected to increase or decrease the proportions in indicators 1 to 4.
Slight beneficial +	Proposals are expected to slightly increase the proportions in indicators 1 to 4.
Moderate beneficial + +	Proposals are expected to moderately increase the proportions in indicators 1 to 4.
Large beneficial + + +	Proposals are expected to substantially increase the proportions in indicators 1 to 4.

4.16 Equality, Diversity and Human Rights Assessment Criteria

4.16.1 The WelTAG guidance for a Stage 1 Appraisal states that ‘all positive and negative impacts, particularly disproportionate impacts, arising from the strategy or scheme(s) should be qualitatively assessed against the following equality impact groups:

- Race, ethnicity, colour or nationality;
- Sex marital status;
- Disability: physical, sensory or mental;
- Age;
- Religion or belief;
- Sexual orientation;
- Welsh language;
- Other: Lone parent, economic inactivity, social and multiple deprivation

4.16.2 Issues relating to compatibility with human rights legislation should also be considered.

4.16.3 Following consultation with the Welsh Assembly Government, it was suggested that an assessment criteria for assessing equality, diversity and human rights should also take into account statutory duties imposed on public authorities e.g. Race Relations (Amendment) Act 2000, Disability Discrimination Act 2005 and Sex Discrimination Act 1975 (as Amended by the Equality Act 2006). Therefore, the following seven point criteria shown in table 4.13 can be considered appropriate when completing the Appraisal Summary Table for each option.

Table 4.13 Equality, Diversity and Human Rights Assessment Criteria

Significance of change	Description of change
Large adverse - - -	Proposals are expected to have a severe adverse effect in relation to one or more of the equality impact groups and statutory duties.
Moderate adverse - -	Proposals are expected to have a moderate adverse effect in relation to one or more of the equality impact groups and statutory duties.
Slight adverse -	Proposals are expected to have a slight adverse effect in relation to one or more of the equality impact groups and statutory duties.
Neutral effect 0	Proposals are not expected to beneficially or adversely effect issues relating to equality impact groups and statutory duties
Slight beneficial +	Proposals are expected to have a slight beneficial effect in relation to one or more of the equality impact groups and statutory duties.
Moderate beneficial + +	Proposals are expected to have a moderate beneficial effect in relation to one or more of the equality impact groups and statutory duties.
Large beneficial + + +	Proposals are expected to have a large beneficial effect in relation to one or more of the equality impact groups and statutory duties.

4.17 Appraisal Summary Tables

4.17.1 Table 5.1 summarises how each identified transport solution performs against both the TPOs and Welsh Impact Areas. Full ASTs for all options are provided in Appendix A.

Table 5.1: Potential Option Tested Against TPOs & Welsh Impact Areas

Appraisal Criteria	WelTAG Stage 1 Options	
	Option 3	Option 4
ECONOMY		
Transport Economic Efficiency		
Construction Cost (£ Millions)	0.62 to 0.78	0.66 to 0.81
ENVIRONMENT		
Noise	0	0
Local Air Quality	0	0
Greenhouse Gas Emissions	1	0
Landscape and Townscape	0	0
Biodiversity	-2	-2
Heritage	1	0
Water Environment	-2	-2
Soils	0	0
SOCIETY		
Transport Safety	3	2
Personal Security	1	-1
Permeability	3	1
Physical Fitness	2	1
Social Inclusion	2	1
Equality, Diversity and Human Rights	1	1
TRANSPORT PLANNING OBJECTIVES		
TPO 1 - Encourage healthier lifestyles and well being for all	3	2
TPO 3 - Encourage economic regeneration	2	2
TPO 4 - Reduce the road traffic accident rate	2	1
TPO 5 - Increase level of usage for non car forms of transport	2	1
TPO 7 - Positive contribution to the impact of transport	1	1
Scoring Summary	20	8
Public Acceptability:	Acceptable	Acceptable
Acceptability to other stakeholders	Acceptable	Unacceptable
Technical and operational feasibility	Feasible	Feasible
Financial affordability and deliverability	Deliverable	Deliverable
Risks	Mitigation	Objections
Comments: Stage 2 or discard	Stage 2	Discard

4.18 Stage 1 Summary

4.18.1 The following two options were taken forward for consideration and assessment at WelTAG Stage 1:

- Option 3 - Create new link downstream of Llanfoist Bridge adjacent to the White Castle Development
- Option 4 - Create new link downstream of Llanfoist Bridge between the White Castle Development and the Sewerage works

4.18.2 The best performing route option is Option 3 'Create new link downstream of Llanfoist Bridge adjacent to the White Castle Development'. The main advantages over Option 4 stems from the anticipated level of use once completed, resulting in far greater social benefits.

4.19 Recommendations for Stage 2 WelTAG

4.19.1 The Stage 1 appraisal clearly demonstrated that Option 3 is best placed to meet, not only the projects Transport Planning Objectives, but also the Welsh Impact Areas. Given the performance of Option 3 at Stage 1 and the anticipated capital costs of the project, it is recommended that no further appraisal of the option, in the form of a detailed Stage 2 assessment is undertaken. This decision is supported by WelTAG for schemes less than £5 million in value and where further assessment would be an inefficient use of resources. Instead, further work should focus on the feasibility and technical deliver of Option 3 to ensure that the most sustainable and publically acceptable scheme is developed and put forward for development in the near future.

5 PREFERRED OPTION

5.1 Introduction

5.1.1 During initial site walkover inspections and desk top reviews undertaken by the project team, two principle route elements were identified, those being:

- Links south of the River Usk; and
- Links north of River Usk.

5.1.2 The opportunities and challenges associated with each link within the route corridor, including sub-options, together with a recommendation for further development is discussed in this section.

5.1.3 The various link options are shown in Figure 3.

5.2 Southern Link 1

Route Corridor

5.2.1 Starting on the B4246 Merthyr Road at the junction with The Cutting the route would follow the existing NCN 46 shared use infrastructure leading under the A465 underpass and out on to the Waitrose Roundabout. Between Waitrose Roundabout and Llanfoist Bridge users would be encouraged to use the existing eastern footway leading to the Bridge Inn Free House. At the Bridge Inn, a new path would be constructed along the southern bank of the River Usk that leads to a new river crossing.

Constraints

5.2.2 There are no constraints along the existing infrastructure between The Cutting and the Waitrose Roundabout. The existing footway between Waitrose Roundabout and the Bridge Inn is of sub-standard width for shared use. At the identified turn in into the new path along the southern bank of the River Usk the path would pass through a short section of land currently used for parking by patrons of the Bridge Inn. To create the new path along the river bank vegetation would need to be cleared.

Link Requirements

5.2.3 The existing footway between the Waitrose Roundabout and the Bridge Inn would need to be widened to provide sufficient width for safe use as a shared use cycleway / footway. This could be achieved by reducing the width of the adjacent carriageway, or restricting on-street parking. At the turn in to the new path a short link could be created between the area used for parking and the new path without the need to restrict existing parking arrangements. A two-way path 2-3metres wide with localised trail width reductions around mature trees and other features could be provided along the southern embankment of the River Usk.

Technical Delivery

5.2.4 The Southern Link 1, approximately 1.1km in length would be technically feasible to deliver. Approximately 0.275km of the trail along the southern embankment of the River Usk would need to be constructed and approximately 0.1km of existing footway path would need to be widened. The remainder of the link would require no works.

- 5.2.5 Due to the density of the trees and vegetation along the southern embankment of the river Usk some tree felling and vegetation clearance would be required to create the trail corridor.
- 5.2.6 A trail could be constructed that traverses along the side slope, allowing for effective surface water management and minimal engineering works.
- 5.2.7 Access during construction could be gained from the Bridge Inn entrance and potentially from the private driveway forming part of Southern Link 2 subject to the agreement of the landowner. The creation of either of these routes would also assist in the installation of the bridge deck by forming a suitable access route.

End User

- 5.2.8 This link would offer gentle gradient changes (up to 5%) improving the existing walking and cycling experience in and around Llanfoist and Abergavenny. The route would be suitable for all ages and stages of health and would fit in with Sustrans aspirations for good quality off road pedestrian and cycling routes.

5.3 Southern Link 2

Route Corridor

- 5.3.1 Starting on the B4246 Merthyr Road at Llanfoist Post Office the route would follow the existing shared use infrastructure along Merthyr Road leading under the A465 overbridge and to the White Castle housing development. The route would then turn right into Riverside Drive via an existing ramped public right of way and continue along newly built footway up to Property No. 40. At this point a new path would be created through the private driveway leading down on to the southern embankment of the River Usk where it would link in to a new river crossing.

Constraints

- 5.3.2 There are no constraints along the existing infrastructure along Merthyr Road, however, the existing ramped footway leading in to Riverside Drive is of insufficient width for a two way shared use path. The private driveway is wide enough to continue to accommodate two vehicles and allow a new path to be constructed but would require negotiations with the landowners. Behind the property, the embankment which is covered with mature trees falls sharply towards the river.

Link Requirements

- 5.3.3 The existing ramped path between Merthyr Road and Riverside Drive would benefit from being widened to accommodate shared use. A new short section of pathway would need to be constructed through the driveway of Property No.40 to link into a new 2-3metres wide ramp leading down towards the river crossing.

Technical Delivery

- 5.3.4 The Southern Link 2, approximately 0.8km in length would be technically feasible to deliver. Approximately 0.05km of the trail behind Property No. 40 of Riverside Drive would need to be constructed on ramp. The ramp would be linked to the river crossing and the Riverside Drive by approximately 0.04km of new path construction. The remainder of the link would require no works accept for new signing.

5.3.5 Due to the density of the trees and vegetation along the southern embankment of the river Usk some tree felling and vegetation clearance would be required to create the path corridor.

5.3.6 Access during construction could be gained from the private driveway forming part of Southern Link 2 subject to the agreement of the landowner, however it is likely that some form of temporary path along the embankment would need to be installed to construct the ramp and install the bridge.

End User

5.3.7 This link would offer moderate gradient changes (up to 7%) in keeping with the existing walking and cycling experience in and around Llanfoist and Abergavenny. The route would be suitable for all ages and stages of health and would fit in with Sustrans aspirations for good quality pedestrian and cycling routes.

5.4 Southern Link 3

Route Corridor

5.4.1 Starting on the B4246 Merthyr Road at Llanfoist Post Office the route would follow the existing shared use infrastructure along Merthyr Road leading under the A465 overbridge. Immediately north of the overbridge the route would turn right and follow an unclassified track leading to the Sewerage Works. At the eastern boundary of the housing development a new path would be created leading up to the River Usk embankment and a new river crossing.

Constraints

5.4.2 There are no constraints along the existing infrastructure along Merthyr Road, or the unclassified track leading to the Sewerage Works. At the identified turn on to the new path at the eastern boundary of the housing development site no particularly unmanageable constraints exist, however, as the path returns towards the new bridge crossing site, the path would need to be formed through an area of unstable ground that would require extensive remedial works.

Link Requirements

5.4.3 A new shared use 2-3metre wide path would need to be constructed around the eastern boundary of the housing development.

Technical Delivery

5.4.4 The Southern Link 3, approximately 1.3km in length would be technically feasible, although challenging, to deliver. Approximately 0.5km of the trail along the eastern boundary of the housing development would need to be constructed, of which, 0.2km would pass through an area of ground that experienced a landslip in February 2014. The remainder of the link would require no works other than new signing.

5.4.5 Due to the density of the trees and vegetation along the southern embankment of the river Usk some tree felling and vegetation clearance would be required to create the trail corridor.

5.4.6 Access during construction could be gained from the unclassified track and potentially from the private driveway forming part of Southern Link 2 subject to the agreement of

the landowner. The creation of either of these routes would also assist in the installation of the bridge deck by forming a suitable access route.

End User

- 5.4.7 This link would offer moderate gradient changes (up to 7%) in keeping the existing walking and cycling experience in and around Llanfoist and Abergavenny. The route would be suitable for all ages and stages of health and would fit in with Sustrans aspirations for good quality off road pedestrian and cycling routes, although the link may be too far away from the desire lines to entice regular users.

5.5 Northern Link 1

- 5.5.1 Upon crossing the river, the route would broadly follow an existing pathway through Castle Meadows leading to Ryefield Lane Car Park. The route would exit the car park at Tudor Street opposite the Magistrates Court via a newly constructed path adjacent to the existing carriageway, before connecting into the existing shared use NCN infrastructure at Nevill Street.

Constraints

- 5.5.2 Castle Meadows forms part of the River Usk flood plain and holds some environmental and biodiversity value. At the car park, no segregated path is in place, with walkers forced to use the car park access road to exit on to Tudor Street. Once on Tudor Street, existing shared use infrastructure is in good condition.

Link Requirements

- 5.5.3 A new shared use 2-3metre wide path would need to be constructed along the broad line of the existing permeable paving walking path. At the car park a new path would need to be created around the western side of the facility to connect in to Tudor Street.

Technical Delivery

- 5.5.4 The Northern Link 1, approximately 0.9km in length would be technically feasible to deliver. Approximately 0.35km of the existing trail the Castle Meadows would need to be reconstructed and a new path approximately 0.15km in length would be built to provide an off road connection in to Tudor Street. The remainder of the link would require no works.
- 5.5.5 Access during construction could be gained from the Ryefield Car Park, which could also serve as a potential site compound during the works. By constructing the path from north to south, access could also be gained to the northern embankment of the River Usk to install the river crossing.

End User

- 5.5.6 This link would offer gentle gradient changes (up to 5%) improving the existing walking and cycling experience in and around Llanfoist and Abergavenny. The route would be suitable for all ages and stages of health and would fit in with Sustrans aspirations for good quality off road pedestrian and cycling routes. The link would also improve access to Castle Meadows and may encourage further recreational use.

5.6 Northern Link 2

5.6.1 Upon crossing the river, the route would turn immediately right and follow the existing NCN towards Abergavenny Castle and on to Nevill Street.

Constraints

5.6.2 Castle Meadows forms part of the River Usk flood plain and holds some environmental and biodiversity value. The single lane road around the castle has no segregated footway, or cycleway and exits on to Castle Street at a particularly poor junction layout that struggles to accommodate non-motorised users. Once on Castle Street, existing shared use infrastructure is in reasonable condition.

Link Requirements

5.6.3 The existing NCN path would need to be improved to provide a continuous 2-3metre wide bound shared path between the new river crossing and the single lane road at the castle. Some works to improve the safety of non-motorised users at the Castle Street / Castle walks junction would also be desirable to accommodate any increase in its use.

Technical Delivery

5.6.4 The Northern Link 2, approximately 1.1km in length would be technically feasible to deliver. Approximately 0.65km of the existing trail would need to be reconstructed and some improvement works would be needed around castle Street. The remainder of the link would require no works.

5.6.5 Restricted access during construction could be gained from the Castle Street, or by forming a temporary access from Ryefiled Car Park across Cstle Meadows.

End User

5.6.6 This link would offer gentle gradient changes (up to 5%) through Castle Meadows, but a gradient change of up to 10% would be experienced when travelling up to the Castle, making it challenging for some users.

5.7 Recommendation for Further Development*Southern Link*

5.7.1 Considering the quality of the existing infrastructure along The Cutting (Southern Link 1), it is recommended that this is maintained as the principal pedestrian and cyclist link south of the River Usk and marketed as such, with the existing infrastructure along Merthyr Road between the Posts Office and the White Castle housing development maintained as an alternative depending upon the users destination.

5.7.2 At Waitrose Roundabout where these two pathways merge together, it is recommended that Southern Link 1 is taken forward as the preferred link, with Southern Link 2 implemented as a 'short cut' for pedestrians only if an agreement could be formed with the landowners and sufficient funding is available.

5.7.3 Southern Link 3 should not be taken forward as part of this scheme, as it is unlikely to generate the desired level of use due to it passing through a remote area away from the desire line and the anticipated technical difficulties and higher costs associated

with remediating the embankment. However, it may be worth considering implementing this route as a pedestrian link should future development of the area take place.

Northern Link

- 5.7.4 Considering the challenges faced in developing Northern Link 2, particularly in gaining consent to modify the existing infrastructure around Abergavenny Castle and the uncertainty in attracting users, it is recommended that Northern Link 1 is taken forward as the preferred option.
- 5.7.5 Northern Link 1 would provide a high quality direct route between the new river crossing and Abergavenny Town Hall through the heart of Castle Meadows. The route would be suitable for all abilities and links into to good quality existing shared use infrastructure on Tudor Street.
- 5.8 Outline Scheme Proposals**
- 5.8.1 Outline scheme proposals for the preferred option have been developed and are provided in Figure 4.

5.9 Cost Estimate

5.9.1 A cost estimate for the preferred option is presented below. Costs are exclusive of VAT and do not allow for non-construction elements such as contract administration or land costs.

5.9.2 The costs shown do not include for potential opportunities to improve the existing network as referred to in Section 2 of this report.

ITEM	QUANTITY	UNIT	RATE	AMOUNT
STRUCTURAL STEEL FOOTBRIDGE				
Including excavation, reinforcement, formwork, concrete bearings, deck waterproofing, deck finishes, P6 parapet, excluding approach works	110	m ²	3000.00	330,000.00
Allowance for Crane	16	hour	426.65	6,826.40
PILING				
Establishment of Piling Rig		item		6,825.00
based on cast in place piles bored insitu reinforced concrete with a tripod rig, and an allowance of £500 for pile cap	20	m	215.00	4,300.00
CYCLEWAY CONSTRUCTION				
Off road 2.5m wide	665	m	217.00	144,305.00
On road 2.5m wide	245	m	261.00	63,945.00
FENCING				
Stock proof fencing	80	m	25.00	2,000.00
Gates	4	item	400.00	1,600.00
SIGNING				
Shared use sign	10	item	200.00	2,000.00
SUB TOTAL				561,801.40
PRELIMINARIES	15.00%			84,270.21
PEDESTRAIN/TRAFFIC MANAGEMENT	5.00%			28,090.07
ACCOMMODATION WORKS	2.50%			14,045.04
OPTIMISM BIAS	10.00%			68,820.67
ESTIMATED CONSTRUCTION COSTS				757,027.39

5.10 Opportunity for Phased Development

5.10.1 Depending on project funding the following outline construction phasing could be adopted:

Phase 1 - Install new river crossing

Phase 2 - Create new path along southern embankment of the River Usk

Phase 3 - Widen existing footway at the Bridge Inn

Phase 4 - Surface northern link path between the new river crossing and the car park

Phase 5 - Create new segregated path alongside the car park

Phase 6 - Create new link to Riverside Drive for pedestrians

5.11 Land Requirements

5.11.1 A land ownership plan is provided in Figure 5 of this report. Sections of southern route landownership still needs to be confirmed.

5.12 Recommendations

5.12.1 It is recommended that the preferred route as indicated on Figure 4 is taken forward for further development and implementation.

5.12.2 During the next stage of project development the following timeline should be considered:

- Present findings to officers and members as part of the Bryn-y-Cwm Transport Working Group;
- Consult key stakeholders, including MCC planning departments, CADW, NRW, Abergavenny Town Council and Llanfoist Community Council;
- Carryout topographical survey;
- Determine the requirement for any ecological surveys, including arboriculturist to review potential tree loss;
- Consult with NRW regarding the availability of existing flood modelling to determine the freeboard level of the bridge. If unavailable appoint a suitably experienced consultant to carryout flood modelling to determine freeboard level;
- Carryout preliminary bridge layout proposals enabling lengths of approach ramps to be determined;
- Hold a public consultation event;
- Progress geotechnical site investigation to assist future design of bridge foundations;
- Meet MCC planning department to determine planning requirements;
- Carryout Flood Consequence Assessment to support future planning submission;
- Submit planning application;
- Develop detailed design proposals; and
- Tender construction works.

6 REFERENCES

- ¹ Welsh Transport Planning and Appraisal Guidance (WelTAG), June 2008, Welsh Assembly Government

Appendix A
Appraisal Summary Tables

Llanfoist to Abergavenny: WelTAG Stage 1 Appraisal – Appraisal Summary Table (AST)

Option 3 Create new link downstream of Llanfoist Bridge adjacent to the White Castle Development			
Appraisal Criteria	Assessment	Distribution	Significance
Economy			
Transport Economic Efficiency	Cost: £620-780k	Study Area	
EALI (wider economic Impacts)	Would serve north-south movements between Llanfoist and Abergavenny, with benefits for communities, businesses and tourism across the wider study area. May have the potential to encourage further development east of White castle by improving accessibility.		
Environment			
Noise	A new shared use path is likely to encourage some car users to take non-motorised transport for short journeys between Llanfoist and Abergavenny. A slight modal shift in local travel patterns could occur but is not likely to alter existing levels of noise pollution in any significant way.	Study Area	Neutral (0)
Local Air Quality	A new shared use path is likely to encourage some car users to take non-motorised transport for short journeys between Llanfoist and Abergavenny., although the impact on existing air quality levels is thought to be negligible.	Along Merthyr Road	Neutral (0)
Greenhouse Gas Emissions	A new shared use path is likely to encourage some car users to take non-motorised transport for short journeys between Llanfoist and Abergavenny, This is likely to reduce existing levels of vehicle miles travelled.	Along Merthyr Road	Slight beneficial (+)
Landscape and townscape	Creating a shared use path along the River Usk embankment is unlikely to have any significant effects on the landscape or townscape. A corridor is already in place along the river bank and in most parts is flanked by mature vegetation. The structure would be visible from Castle Meadows, but could be mitigated through appropriate choice of structure and landscaping on the northern side.	Rural landscape	Neutral (0)
Bio-diversity	The river crossing has the potential to impact upon the River Usk SAC and SSSI. An array of habitats including mature trees and hedgerows are also likely are affected to some extent.	Habitats and territories along the River Usk	Moderate adverse (- -)
Heritage	Proposal generally contained within an already developed area and would have very limited impact on any surviving cultural heritage interest. Potential to improve the impact of transport on the Grade I listed bridge.	Along A40	Slight beneficial (+)
Water environment	The construction of a path on 'green' land will increase surface water runoff. The creation of crossing of the River Usk will impact on the floodplains capacity.	River Usk	Moderate adverse (- -)
Soils	The construction of a path will involve the removal of topsoil, but this is unlikely to significantly alter the geological environment.	Along route	Neutral (0)
Society			
Transport safety	The removal of conflicts between vehicles and non-motorised users will substantially reduce accident frequencies and / or their severity for non-motorised users along Merthyr Road	Along Merthyr Road	Large beneficial (+++)

Llanfoist to Abergavenny: WelTAG Stage 1 Appraisal – Appraisal Summary Table (AST)

Option 3 Create new link downstream of Llanfoist Bridge adjacent to the White Castle Development			
Appraisal Criteria	Assessment	Distribution	Significance
Personal security	Overall proposals are expected to improve personal security. People are likely to feel more secure during hours of day light, but less secure during darkness.	Along Merthyr Road	Slight beneficial (+)
Permeability	People are likely to be encouraged to make non-motorised journeys to an extent sufficient to induce a reorganisation of their activities. In some cases, this could lead to increased use in the centres of activity or to new access to certain facilities for a particular community. Those who make journeys by non-motorised means already will experience considerable encouragement.	North/south of River Usk	Large beneficial (+++)
Physical Fitness	Proposals are expected to substantially increase travel by active modes	Study Area	Moderate beneficial (++)
Social Inclusion	Proportion of households within 60 minutes non-motorised transport travel time of a 'Key Centre' is likely to be increased for communities either side of the River Usk.	Study Area	Moderate beneficial (++)
Equality, Diversity & Human Rights	Proposals are expected to have a moderate beneficial effect in relation to the mobility of the young, old and disabled.	Study Area	Slight beneficial (+)
Transport Planning Objectives			
TPO 1	(+++) would be accessible to all and benefit communities throughout the study area.		
TPO 2	(++) would provide an improvement in links to businesses along the A40 corridor.		
TPO 3	(++) likely to improve accident rates along Merthyr Road.		
TPO 4	(++) likely to encourage a shift to non-motorised transport modes over short distances between Llanfoist and Abergavenny		
TPO 5	(+) likely to make a positive contribution to the effects of transport in the region		
Public acceptability: Likely to be acceptable to general public			
Acceptability to other stakeholders: Likely to receive challenges from environmental bodies owing to its impact on the water environment. Likely to be generally acceptable to other stakeholders subject to mitigation of impacts.			
Technical and operational feasibility: Technically feasible			
Financial affordability and deliverability: Affordable, with potential for developer contributions.			
Risks: Acceptability of flooding impact; effects on housing at White Castle.			
Comment: This option fits well with all Transport Planning Objectives and performs well against most Welsh Impact Areas. The proposal is technically and operationally viable, would best fit the surrounding environment and encourage the greatest usage.			
It is therefore recommended that this option be taken forward to WelTAG Stage 2.			

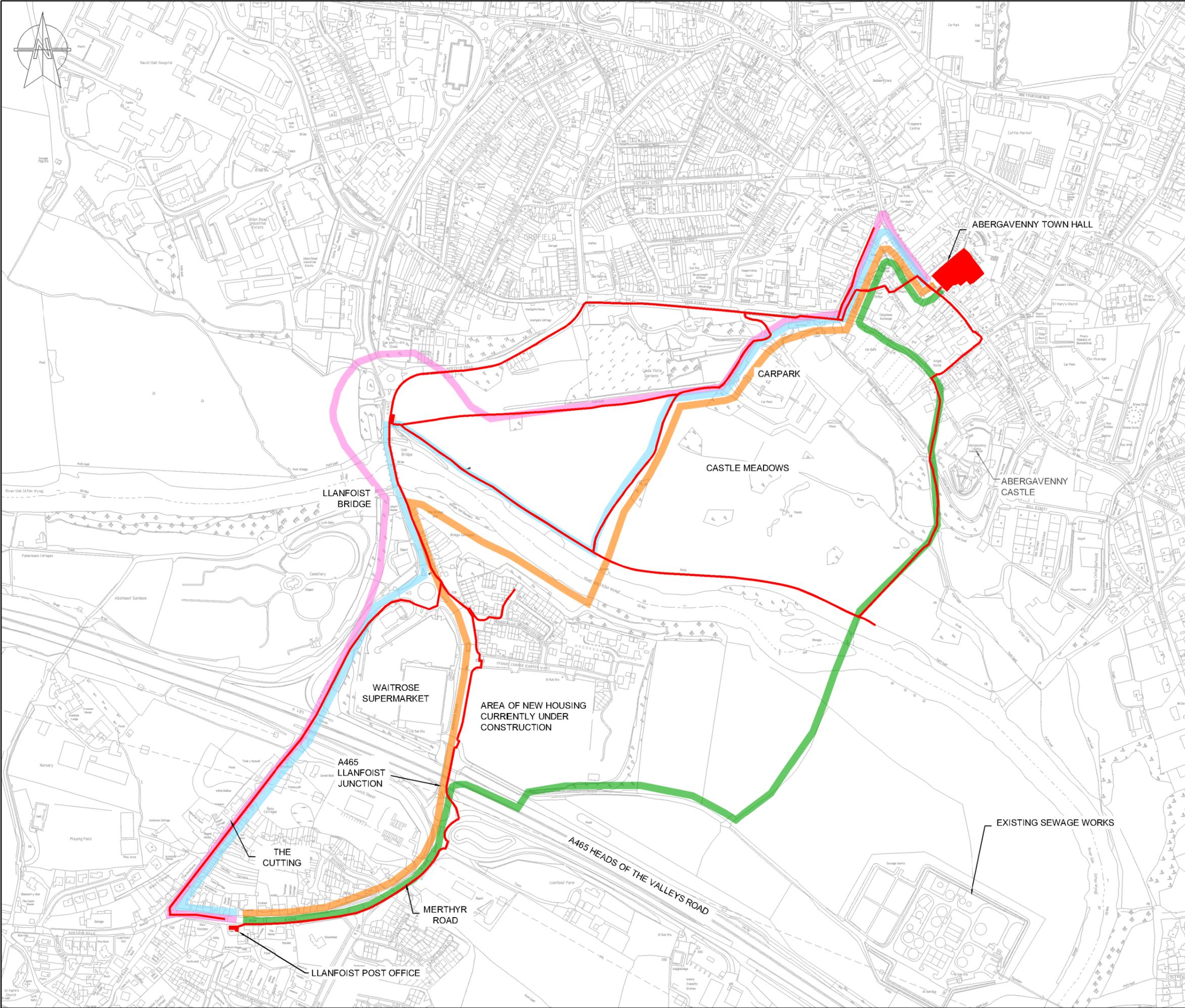
Llanfoist to Abergavenny: WelTAG Stage 1 Appraisal – Appraisal Summary Table (AST)

Option 6 Create new right of way along dismantled railway			
Appraisal Criteria	Assessment	Distribution	Significance
Economy			
Transport Economic Efficiency	Cost: £660-810k	Llanfoist and Abergavenny east	
EALI (wider economic Impacts)	Would serve north-south movements between Llanfoist and east Abergavenny, with benefits for communities, businesses and tourism across the study area. May have the potential to encourage further development east of White castle by improving accessibility.		
Environment			
Noise	A new shared use path is likely to marginally encourage some car users to take non-motorised transport for short journeys between Llanfoist and Abergavenny east. A slight modal shift in local travel patterns could occur but is not likely to alter existing levels of noise pollution in any significant way.	Study Area	Neutral (0)
Local Air Quality	A new shared use path is likely to marginally encourage some car users to take non-motorised transport for short journeys between Llanfoist and Abergavenny east, although the impact on existing air quality levels is thought to be negligible.	Along Merthyr Road	Neutral (0)
Greenhouse Gas Emissions	A new shared use path is likely to marginally encourage some car users to take non-motorised transport for short journeys between Llanfoist and Abergavenny east, although the impact on existing car miles travelled is thought to be negligible.	Along Merthyr Road	Neutral (0)
Landscape and townscape	Creating a shared use path along the River Usk embankment is unlikely to have any significant effects on the landscape or townscape. A corridor is already in place along the river bank and in most parts is flanked by mature vegetation. The structure would be visible from Abergavenny Castle, but could be mitigated through appropriate choice of structure and landscaping on the northern side.	Rural landscape	Neutral (0)
Bio-diversity	The river crossing has the potential to impact upon the River Usk SAC and SSSI. An array of habitats including mature trees and hedgerows are also likely are affected to some extent.	Habitats and territories along the River Usk	Moderate adverse (- -)
Heritage	Proposal generally located within green field land that may result in very limited impact on any surviving cultural heritage interest. Potential to improve the impact of transport on the Grade I listed bridge, but new bridge may impact on historic setting of Abergavenny Castle.	River Usk corridor	Neutral (0)
Water environment	The construction of a path on 'green' land will increase surface water runoff. The creation of crossing of the River Usk will impact on the floodplains capacity.	River Usk	Moderate adverse (- -)
Soils	The construction of a path will involve the removal of topsoil, but this is unlikely to significantly alter the geological environment.	Along route	Neutral (0)
Society			
Transport safety	The removal of conflicts between vehicles and non-motorised users will reduce accident frequencies and / or their severity for non-motorised users along Merthyr Road	Along Merthyr Road	Moderate beneficial (++)

Llanfoist to Abergavenny: WeITAG Stage 1 Appraisal – Appraisal Summary Table (AST)

Option 6 Create new right of way along dismantled railway			
Appraisal Criteria	Assessment	Distribution	Significance
Personal security	The route passes through remote areas away from overlooking neighbourhoods and may result in an increase fear of risk.	Along new route	Slight adverse (-)
Permeability	People are likely to be encouraged to make non-motorised journeys, but not to an extent where they may reorganise of their activities. Those who make journeys by non-motorised means already between Llanfoist and Abergavenny east will experience considerable encouragement.	North/south of River Usk and Abergavenny east	Slight beneficial (+)
Physical Fitness	Proposals may increase travel by active modes as a leisure activity	Study Area	Slight beneficial (+)
Social Inclusion	Proportion of households within 60 minutes non-motorised transport travel time of a 'Key Centre' is likely to be increased for communities in Llanfoist and Abergavenny east.	Study Area	Slight beneficial (+)
Equality, Diversity & Human Rights	Proposals are expected to have a moderate beneficial effect in relation to the mobility of the young, old and disabled.	Study Area	Slight beneficial (+)
Transport Planning Objectives			
TPO 1	(++) would be accessible to all and benefit communities in Llanfoist and Abergavenny east.		
TPO 2	(++) would provide an improvement in links to businesses and destinations in the east of abergavenny.		
TPO 3	(+) likely to improve accident rates along Merthyr Road, but to a lesser extent than Option 3 due to reduced user numbers.		
TPO 4	(+) likely to encourage a shift to non-motorised transport modes over short distances between Llanfoist and Abergavenny east.		
TPO 5	(+) likely to make a positive contribution to the effects of transport in the region		
Public acceptability: Likely to be acceptable to general public, but is not on the desire line.			
Acceptability to other stakeholders: Likely to receive challenges from environmental bodies owing to its impact on the water environment. Likely to receive challenges from landowners. Likely to be generally acceptable to other stakeholders subject to mitigation of impacts.			
Technical and operational feasibility: Technically and operationally feasible.			
Financial affordability and deliverability: Affordable.			
Risks: Acceptability of flooding impact; Does not encourage a shift from Llanfoist Bridge because the route is well away from desire line and significantly increase travel distance. Ground instability problems.			
Comment: This option provides reasonable benefits across the board, but does not achieve the social benefits of Option 3. The risk that the route would be seen as an extension to the existing leisure routes, rather than pedestrian link between communities is considerable.			
It is therefore recommended that this option be discarded and not taken forward to WeITAG Stage 2.			

Appendix B
Figures



KEY

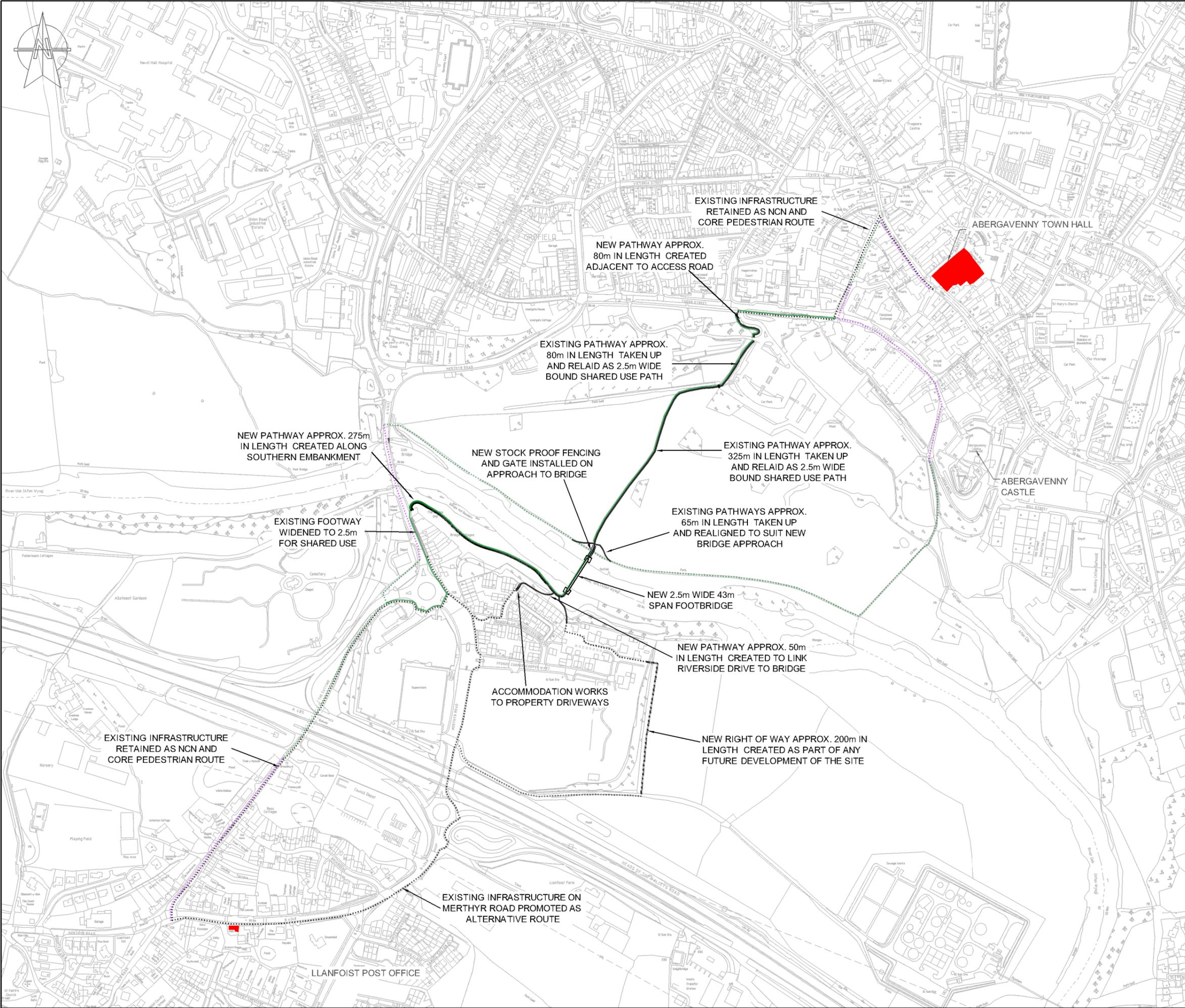
- EXISTING PEDESTRIAN ROUTES
- OPTION 1
- OPTION 2
- OPTION 3
- OPTION 4

NOTES

1. EXISTING AND ROUTES ARE INDICATIVE.

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 Monmouthshire County Council, 100023415
 Atgynhychwyd o fapiaid yr Arolwg Ordnans gyda chaniatod rheolwr Llyfrfa ei Mawrthdy hawraint y Goron. Mae atgynychu heb awdurdod yn tom hawraint y Goron. Gall hyn arwain at ebyriad neu achos sifil. Cyngor Sir Fyrwy, 100023415

Rev	Date	Description	By	Chk	App
DRAFT					
PARSONS BRINCKERHOFF 29 Cathedral Road Cardiff CF11 9HA Tel: 44-(0)29-2082-7000 Fax: 44-(0)29-2082-7001					
Client: MONMOUTHSHIRE COUNTY COUNCIL					
Site/Project: LLANFOIST TO ABERGAVENNY PEDESTRIAN LINK FEASIBILITY STUDY					
Title: ROUTE CORRIDOR OPTIONS					
Drawn: EB		Checked: SAB			
Designed: EB		Approved: GS			
Date: 23/07/2014		Scale: 1:5000		A3 Sheet:	
Project Number:		Drawing Number:		Revision:	
3512464W-HHC		FIGURE 2		-	
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KEY

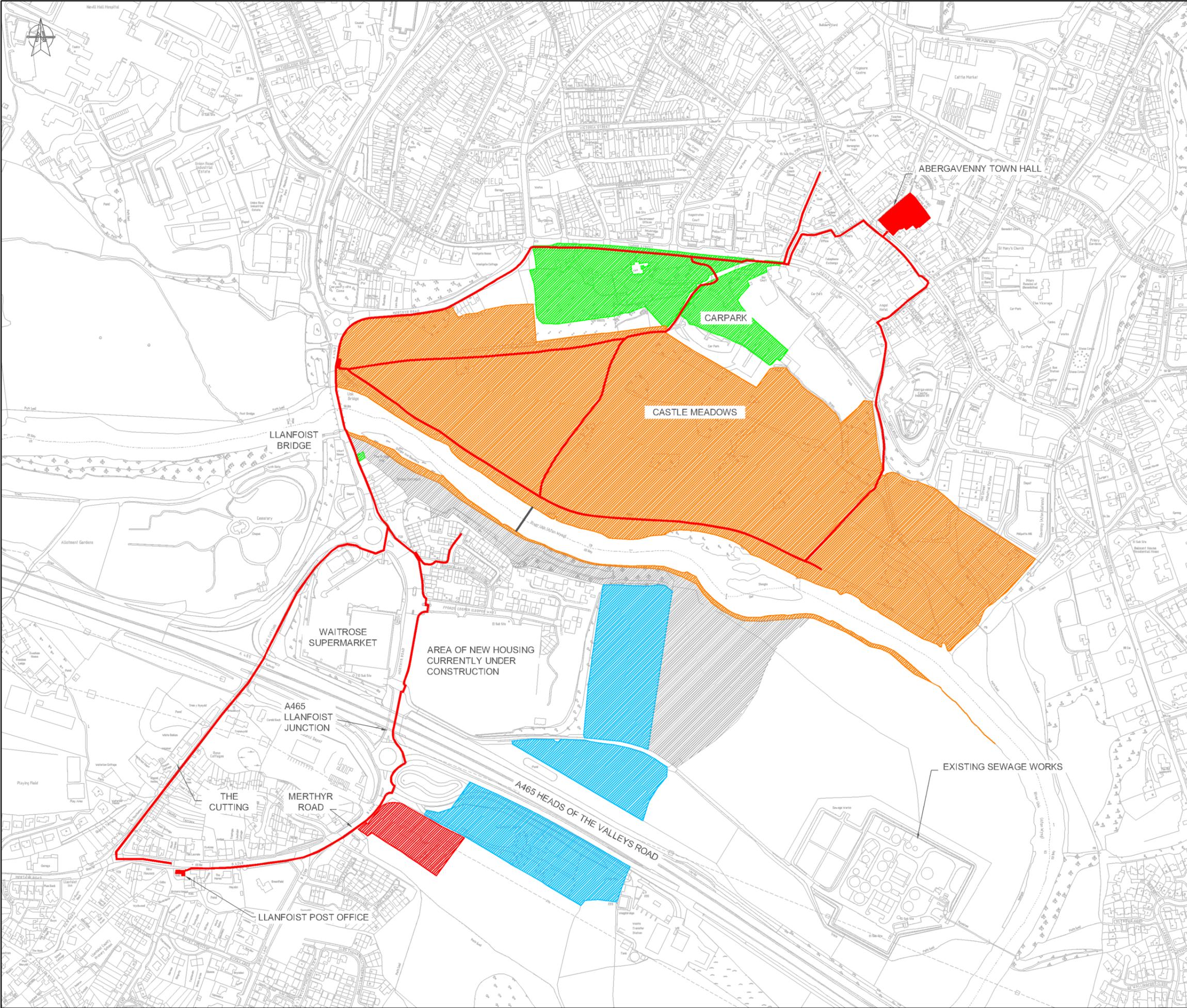
- NEW SHARED USE PATH
- - - NEW RIGHT OF WAY
- EXISTING SHARED USE PATH
- DIVERTED NCN OFF ROAD SECTION
- EXISTING NCN OFF ROAD SECTION
- EXISTING NCN ON ROAD SECTION

NOTES

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Rev	Date	Description	By	Chk	App
DRAFT					
PARSONS BRINCKERHOFF					
29 Cathedral Road Cardiff CF11 9HA			Tel: 44-(0)29-2082-7000 Fax: 44-(0)29-2082-7001		
Client: MONMOUTHSHIRE COUNTY COUNCIL					
Site/Project: LLANFOIST TO ABERGAVENNY PEDESTRIAN LINK FEASIBILITY STUDY					
Title: PREFERRED OPTION OUTLINE PROPOSALS					
Drawn: EB	Checked: SAB				
Designed: EB	Approved: GS				
Date: 24/07/2014	Scale: 1:5000	A3	Sheet:		
Project Number:	Drawing Number:	Revision:			
3512464W-HHC	FIGURE 4	-			
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KEY

	DWR CYMRU CYFYNGEDIG
	JOHNSEY ESATES UK LTD
	MONMOUTHSHIRE COUNTY COUNCIL
	CASTLE MEADOWS
	UNKNOWN LANDOWNER
	EXISTING PEDESTRIAN ROUTES

NOTES

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 Monmouthshire County Council, 100023415
 Algybrychwyd o faplad yr Arolwg Ordnans gyda chariadat rhector Llyfrfa o Manwylid hawfrain't y Goron. Mae algybrychu hab awdurdod yn lori hawfrain't y Goron. Gall hyn arwain at orlyniad neu achos sifil. Cyngor Sir Ffymy, 100023415

Rev	Date	Description	By	Chk	App
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INFORMATION

PARSONS BRINCKERHOFF
 29 Cathedral Road
 Cardiff
 CF11 9HA
 Tel: 44-(0)29-2082-7000
 Fax: 44-(0)29-2082-7001

Client:
MONMOUTHSHIRE COUNTY COUNCIL

Site/Project:
LLANFOIST TO ABERGAVENNY PEDESTRIAN LINK FEASIBILITY STUDY

Title:
EXISTING LAND OWNERSHIP PLAN

Drawn: RED	Checked: GS
Designed: RED	Approved: GS
Date: 29/07/2014	Scale: 1:2500 A1 Sheet: 1 OF 1
Project Number: 3512464W-HHC	Drawing Number: FIGURE 5
	Revision: -