

COEDEL:   
OUTLINE BUSINESS CASE   
FINAL REPORT   
(WELTAG STAGE 2)

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Coedely: Outline Business Case Final Report (WelTAG Stage 2)

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## Contents

### Glossary of Terms

1. Introduction	1
2. The Strategic Case	7
3. The Transport Case	25
4. The Financial Case	45
5. The Commercial Case	48
6. The Management Case	50
7. Recommendations for WeITAG Stage 3	58

## Figures

Figure 1.1 – Study Area (within body of report)

## Background Information

Coedely: Strategic Outline Case (WeITAG Stage 1)  
Impacts Assessment Report

# Glossary of Terms

AST	Appraisal Summary Table
BCR	Benefit to Cost Ratio
CPO	Compulsory Purchase Order
DM	Do Minimum
EIA	Environmental Impact Assessment
HEAT	Health Economic Assessment Tool
KSI	Killed or Seriously Injured
LDP	Local Development Plan
NEC	New Engineering Contract
NYA	Not Yet Assessed
PM	Project Manager
PSSR	Preliminary Sources Study Report
PVB	Present Value of Benefits
RCT	Rhondda Cynon Taf
RCT CBC	Rhondda Cynon Taf County Borough Council
SINC	Special Area of Conservation
SMART	Specific, Measureable, Achievable, Realistic, Time-based
SSA	Southern Strategy Area
SSSI	Site of Special Scientific Importance
TPO	Transport Planning Objective
TUBA	Transport User Benefits Appraisal
TUPE	Transfer of Undertakings (Protection of Employment) Regulations
VfM	Value for Money
WBOFGA	Well-being of Future Generations (Wales) Act 2015
WebTAG	UK Transport Appraisal Guidance
WelTAG	Welsh Transport Appraisal Guidance
WHO	World Health Organisation
WTS	Wales Transport Strategy

# 1. Introduction

## 1.1 Background

The Strategic Outline Case report (WelTAG Stage 1) for Coedely was completed in January 2018 together with supporting information contained in Section 1 of the Impacts Assessment Report. The summary and recommendations from the Stage 1 report are reproduced below with further details available in the full report.

### 1.1.1 Summary and Recommendations

The Review Group has provided the statement below, in italics:

*The Review Group met on 28 November to consider the Stage 1 WelTAG report and agree the preferred way forward.*

*The recommendations for Stage 2 align with the suggestions from REDSTART, which are:*

- A. *Dualling of the A4119 with associated roundabout improvements (Option 1);*
- B. *Dualling of the A4119 with associated roundabout improvements, plus an adjacent Active Travel route, (Option 1 and Option 11);*
- C. *Dualling of the A4119 with associated roundabout improvements, plus an adjacent Active Travel route, a Park & Ride/Park & Share facility within the SSA 14.1 development site, plus Park & Ride expansion north of the study area (Option 1, Option 2, Option 11, and Option 15);*
- D. *Do Minimum (Option 22).*

*It is clear that the dualling of the A4119 (Option 1) addresses the greatest number of objectives and as such forms the basis of all suggestions, apart from D (Do Minimum) and is recommendation A. However, the dualling does not adequately address objectives regarding Active Travel and public transport. Recommendation B includes Active Travel (Option 11), and Recommendation C includes Active Travel as well as additional Park & Ride/Share provision (Options 2 and 15).*

*The Review Group are happy for these recommendations to be taken forward to WelTAG Stage 2.*

The above options are included in the Impacts Assessment Report as Appendix 1.16 (the Options Plan) in Section 1. This also shows other options that were considered as part of the Stage 1 WelTAG appraisal.

Following the completion of the Strategic Outline Case report (WelTAG Stage 1), Rhondda Cynon Taf County Borough Council requested that consideration be given to an alternative A4119 dualling option. This option differs from Option 1 in the long list inasmuch as it involves the removal of the roundabout that gives access to the South Wales Fire & Rescue Service headquarters and extends the dualling all the way to Coedely Roundabout unhampered by an intermediate junction. The new headquarters' access would be via the

roundabout that serves the Royal Glamorgan Hospital to the south, and Sterling Drive and businesses adjacent to it, to the north.

Although the concept of removing the roundabout was Option 14 in the long list that was considered in the Strategic Outline Case, this was a standalone improvement and did not include extending the dual carriageway all the way to Coedely Roundabout. The alternative A4119 dualling option is really a hybrid of Options 1 and 14.

The consideration of a hybrid dualling option as an alternative to Option 1, which has been referenced Option 1A, has required some additional appraisal to be carried out. The intention of this is to allow the better performing of the two to be included in the short-list of options as described above (Options A, B, and C). For convenience, the comparison of Option 1 and Option 1A has been included in Chapter 2, the Strategic Case. This is followed by the more detailed appraisal of the options in the short-list that follows this.

## 1.2 Context

Coedely is a small community within the Ely Valley in the County Borough of Rhondda Cynon Taf (RCT), in South Wales. It lies at the southern edge of a number of larger communities including Tonyrefail. Both communities lie to the immediate east of the A4119, which gives access to the Rhondda Valleys from the M4 at Junction 34.

The main access to Coedely from the A4119 is via a roundabout. This roundabout also gives access to a minor road that leads to Llantrisant Forest and, further south, the western part of Talbot Green. It also leads to Ynysmaerdy to the south east. Talbot Green lies approximately 3.5 kilometres to the south of Coedely with Tonyrefail approximately 2.5 kilometres to the north. The M4 motorway lies 5 kilometres to the south and the centre of Cardiff lies approximately 19 kilometres to the south east.

The A4119 is a single carriageway road in the Coedely area with a 50mph speed limit and only becomes a dual carriageway approximately 1.3 kilometres to the south west. This is at the roundabout that provides access to the South Wales Fire & Rescue Service headquarters. From here, the dual carriageway extends all the way south to the M4.

As well as Coedely, and locations to the south, the roundabout also gives access to a proposed development site, which lies on the western side of the A4119. This was the former Coedely Colliery and Coking Works and is identified in the Rhondda Cynon Taf County Borough Council (RCT CBC) Local Development Plan (LDP) as Strategic Development Site SSA 14.1. This is a large site with an area of 14.32 hectares and extends some distance to the north. The former colliery/coking works was the subject of a land reclamation scheme in the early 2000s. The site is currently for sale.

The roundabout currently suffers from a degree of traffic congestion during peak periods, which impact on the A4119 to the south. In combination, these were the subject of a feasibility report in September 2016. As well as considering highway improvements, the report included a high level transportation assessment, which considered the existing and future traffic flows at the roundabout, the latter of which took into account the SSA 14.1 development site. The feasibility report is included in the Strategic Outline Case chapter

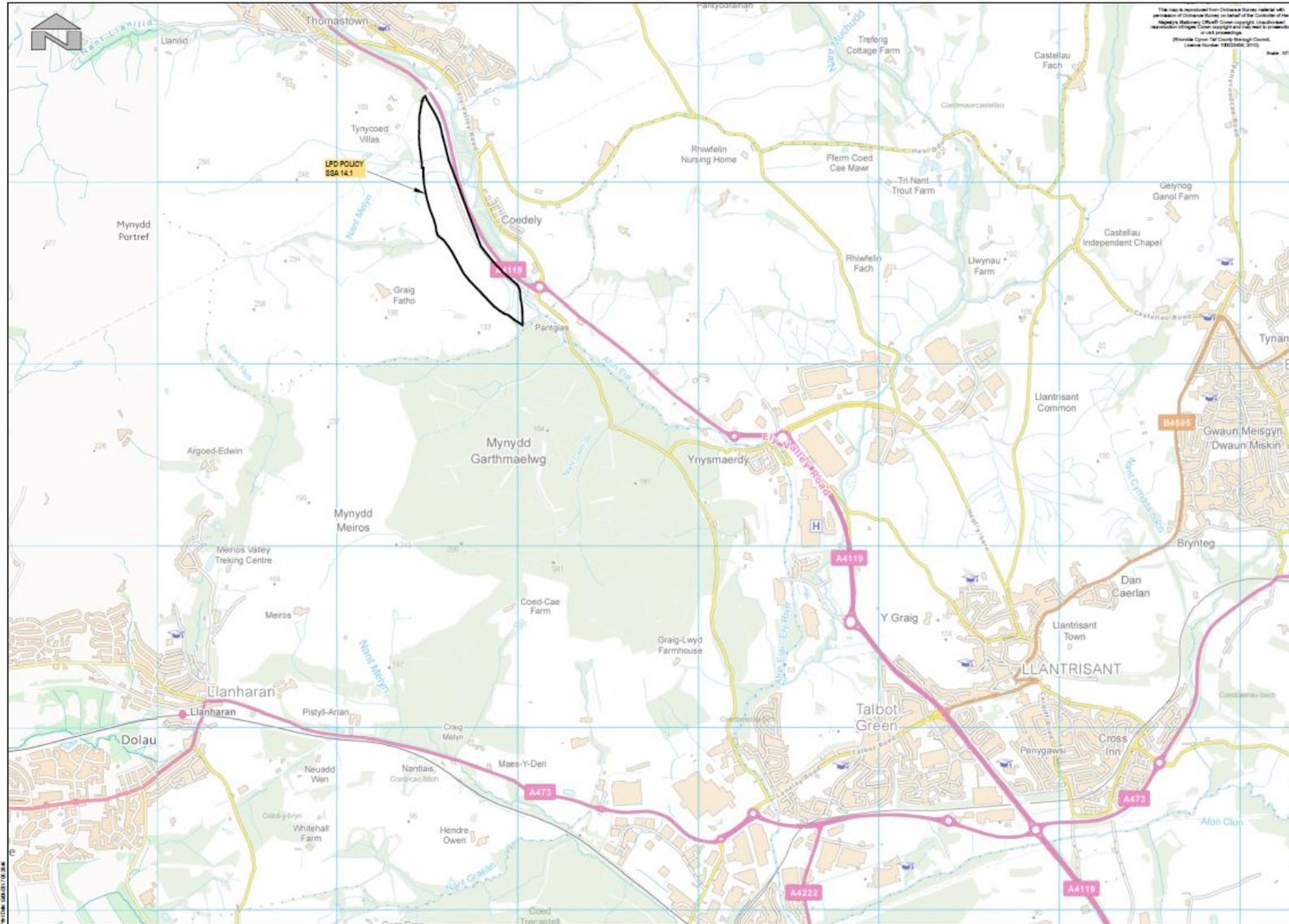
(Chapter 1) of the Impacts Assessment Report as Appendix 1.1. Information on other problems in the local area is included in Appendix 1.3.

The feasibility report is the sole investigative work that has been undertaken to address transport issues in the Coedely area.

Neither the LDP nor the South East Wales Valleys Local Transport Plan 2015 contain references to a scheme to improve the A4119 in the Coedely area.

Figure 1.1 shows a plan of the Study Area with the A4119 running through it in a north west/south east direction. The plan also shows the development area that is contained in the LDP that is outlined above. Within the Study Area, the length of A4119 corridor has been taken as between Thomastown in the north and the A4119/A473 roundabout in the south. In addition, the length of A473 corridor between this roundabout, and west of Talbot Green has also been included.

Figure 1.1: Study Area



### 1.3 WelTAG Process

In 2017, the Welsh Government published updated Welsh Transport Appraisal Guidance, which is used to appraise all transport schemes. The original guidance was issued in 2008.

Throughout the WelTAG process, appraisal is based on the Five Cases approach, which is used by the Welsh Government and HM Treasury in business cases for projects requiring public sector funding. The Five Cases are as follows:

- The Strategic Case;
- The Transport Case;
- The Financial Case;
- The Commercial Case; and
- The Management Case.

It should be noted that between the draft and final versions of the WelTAG guidance, some of the terminology, and chapter layouts changed. The Delivery Case, which is described in the Strategic Outline Case (WelTAG Stage 1), is now referred to as the Management Case and all references to the former have been changed to the latter in this report.

The way that the guidance has been used in this Outline Business Case is as follows:

- The Strategic Case chapter that was included in the Strategic Outline Case (January 2018) was almost fully developed. Rather than reproduce it in its entirety, this Outline Business Case includes a summary, which has been supplemented with additional information that has become available since the Strategic Outline Case was completed. This chapter also includes a comparison appraisal of the dualling options 1 and 1A as well as an appraisal (in strategic terms) of the packaged options that emerged from the Strategic Outline Case.
- The Transport Case that was included in the Strategic Outline Case provided an initial assessment of the expected impacts of the options in the long list. Where appropriate, this too has been summarised in this Outline Business Case although it has been supplemented with additional information that has been gathered since the Strategic Outline Case was completed. The Transport Case includes the main economic appraisal of the packaged options.
- The Financial, Commercial, and Management Cases were considered in outline only in the Strategic Outline Case and are considered in more detail in this Outline Business Case.
- Throughout the Strategic Outline Case (for the long list of options) and the Outline Business Case (for the short-list of packaged options), appraisal processes have been compliant within current guidance; and
- An 'evidence' led approach has been adopted in selecting options to take forward at the end of each WelTAG stage.

As the Strategic and Transport Cases are, in part, summaries of the appraisal work that was undertaken in the Strategic Outline Case (WeITAG Stage 1), reference should be made to this document for full details of the previous appraisal work. It is a background document.

The Impacts Assessment Report is a live document and gathers together relevant information about the Coedely scheme. It was a background document to the Strategic Outline Case Report and contained information (in Section 1) that informed the Stage 1 appraisal. The Impacts Assessment Report is also a background document to this Outline Business Case Report and as well as the same information from Section 1 of the Strategic Outline Case, it contains (in Section 2), additional information that has become available.

## 1.4 Report Structure

Following the Introduction (Chapter 1), the rest of the Outline Business Case (WeITAG Stage 2) chapters are listed below.

- Chapter 2: The Strategic Case;
- Chapter 3: The Transport Case;
- Chapter 4: The Financial Case;
- Chapter 5: The Commercial Case;
- Chapter 6: The Management Case; and
- Chapter 7: Recommendations for WeITAG Stage 3.

## 2. The Strategic Case

### 2.1 Introduction

This is where the Coedely area is described in terms of transport, development and access, employment and society, environment, public transport, and active travel. It outlines the case for change and the strategic fit of the transport interventions that have been proposed. It appraises these against a range of national, regional, and local policy documents that has determined the type of interventions that are best placed strategically, as well as more locally, to address the transport and other issues that have been highlighted in the Coedely area.

The full Strategic Case is included in the Strategic Outline Case (WelTAG Stage 1), which is a background document to this report. A summary of the appraisal that was undertaken is given below. Although this covers the need for a transport intervention in the Coedely area, it also focuses on the individual options that were appraised in the Strategic Outline Case. These have been packaged into the short-listed options for appraisal at this Outline Business Case stage. Where further information has become available since the Strategic Outline Case was completed, or was not included for whatever reason in the Stage 1 report, this has been included in 2.3.

The appraisal work that has been undertaken on the original Option 1 and the additional option (1A) that RCT has asked to be considered, is included in Section 2.4. Section 2.5 includes the Strategic Case appraisal of the packaged options in the short-list.

### 2.2 Summary of the Strategic Case from the Strategic Outline Case Report

Many of the problems raised in the Stakeholders' Workshop, and included as Appendix 1.2 (Section 1) of the Impacts Assessment Report are related to Transport, Development and Access, Employment, Environment, and Active Travel. It is likely that most, if not all of these, will continue into the future if no transport intervention is provided.

The following is a list of individual options that emerged from the long list considered in the Strategic Outline Case report. These have been packaged for appraisal later in 2.4 of this Outline Business Case.

- *Dualling of the A4119 with associated roundabout improvements (Option 1);*
- *Active Travel route adjacent to A4119 (Option 11);*
- *Park & Ride/Park & Share facility within SSA 14.1 development site (Option 2);*
- *Park & Ride expansion north of the study area (Option 15); and*
- *Do Minimum (Option 22).*

The above options could also benefit the local environment within the Coedely area. However, this has to be balanced against the negative impacts that may result.

With some of the above individual options proposing the improvement of public transport in the form of Park & Ride, benefits could be gained through improved access, and greater transport choice. Improvements to Active Travel (also one of the options) will also be beneficial through the ability to provide safer and more widespread facilities in the future.

### 2.2.1 *The Wales Transport Strategy*

The individual options from the long list were appraised against the Wales Transport Strategy (WTS) and is shown in Table 2.1. Dualling of the single carriageway A4119 (Option 1) aligns most with a wide range of outcomes. Non-new road based options such as public transport and sustainable transport, Options 2, 11, and 15 also align well with some of the outcomes. Do Minimum (Option 22) is generally neutral across the outcomes.

The information contained in Table 2.1 has been taken from Appendix 1.10 (Worksheet 8) in Section 1 of the Impacts Assessment Report.

**Table 2.1: Individual Options appraised against WTS Outcomes**

Option		Wales Transport Strategy Outcomes															
		Social					Economy					Environment					
		Improve access to healthcare	Improve access to education, training and lifelong learning	Improve access to shopping and leisure facilities	Encourage healthy lifestyles	Improve the actual and perceived safety of travel	Improve access to employment opportunities	Improve connectivity within Wales and internationally	Improve the efficient, reliable and sustainable movement of people	Improve the efficient, reliable and sustainable movement of freight	Improve access to visitor attractions	Increase the use of more sustainable materials	Reduce the contribution of transport to greenhouse gas emissions	Adapt to the impacts of climate change	Reduce the contribution of transport to air pollution and other harmful emissions	Improve the impact of transport on the local environment	Improve the impact of transport on our heritage
No.	Name																
1	Dual single carriageway A4119 (Stink Pot Hill)	+	+	+	0	0	++	+	+	+	+	+	+	0	-	0	-
2	Park & Ride/Park & Share facility within SSA 14.1 development site	0	0	0	+	+	0	0	0	0	0	0	+	+	+	0	0
11	Active Travel route adjacent to A4119	0	0	0	+++	+	+	+	0	+	0	0	+	+	+	+	0
15	Park & Ride expansion north of the study area	0	0	0	+	+	+	0	0	0	0	0	+	+	+	0	0
22	Do Minimum	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0

**Key**

Large positive (+++)	Moderate positive (++)	Slight positive (+)	Neutral (0)
Slight negative (-)	Moderate negative (--)	Large negative (---)	

### 2.2.2 Well-being of Future Generations (Wales) Act 2015

Against the goals of the Well-being of Future Generations (Wales) Act 2015, Option 1 Dual single carriageway A4119 (Stink Pot Hill) aligns with the majority of individual goals in some way. As with the Wales Transport Strategy, the non-road based options that promote public transport and walking and cycling perform reasonably well, particularly the Active Travel option (Option 11). The performance of Options 1, 2, 11, and 15 as well as Option 22 (Do Minimum) against the goals of the Well-being of Future Generations (Wales) Act 2015 are shown in Table 2.2.

**Table 2.2: Individual Options appraised against the Well-Being of Future Generations (Wales) Act 2015 Goals**

Option		A globally responsible Wales	A Wales of vibrant culture and thriving Welsh language	A Wales of cohesive communities	A more equal Wales	A healthier Wales	A resilient Wales	A prosperous Wales	Overall Summary
No.	Name								
1	Dual single carriageway A4119 (Stink Pot Hill)	++	+	+	+	0	+	++	++
2	Park & Ride/Park & Share facility within SSA 14.1 development site	+	0	0	+	+	+	0	+
11	Active Travel route adjacent to A4119	++	+	+	++	++	+	+	++
15	Park & Ride expansion north of the study area	+	0	0	+	+	+	+	+
22	Do Minimum	0	0	0	0	0	0	0	0

#### Key

Large positive (+++)	Moderate positive (++)	Slight positive (+)	Neutral (0)
Slight negative (-)	Moderate negative (--)	Large negative (---)	

The information contained in Table 2.2 has been taken from Appendix 1.11 (Worksheet 9) in Section 1 of the Impacts Assessment Report.

### 2.2.3 Regional and Local Plans

In terms of the South East Wales Valleys Local Transport Plan and the Rhondda Cynon Taf Local Development Plan, there are no transport schemes listed that lie within the Coedely area. Over a wider area, only the A473 Ynysmaerdy to Talbot Green Relief Road is listed. The only Active Travel proposal listed is for the Pontypridd to Tonyrefail Community Route via Church Village and Llantrisant (Route from the University of South Wales, Treforest to Llantrisant). Although listed as a short-term scheme, it is now listed as long-term.

The improvement of public transport also features in the Local Transport Plan. This is in terms of network coverage, quality, and integration (with other modes). Although there are short-term proposals to upgrade bus stops on the A4119, there are no proposals for Park & Ride in the vicinity of Coedely.

As with the South East Wales Valleys Local Transport Plan, only the A473 Ynysmaerdy to Talbot Green Relief Road is mentioned in the Rhondda Cynon Taf Local Development Plan. Although Active Travel does not feature in the LDP, walking and cycling do feature and there is a proposal (reference SSA 21.6) to complete the Pontypridd to Tonyrefail (via Llantrisant) cycle path/community route within the Coedely area. This will continue northwards through the SSA 14.1 development site. This proposal is also included in the overall Integrated Network Maps (2018) for Tonyrefail and Talbot Green.

Public transport features throughout the document but there are no specific proposals within the general Coedely area. Although there are no transport proposals included in the RCT Corporate Plan there are statements supporting initiatives to support economic growth.

#### 2.2.4 *Transport Planning Objectives*

The Transport Planning Objectives that were developed in the Strategic Case are shown below.

- TPO1: To improve highway journey times on the north/south A4119 corridor and improve access to the M4.
- TPO2: To improve the economic and employment opportunities in the Ely Valley and the Rhondda, and provide employment and social benefits.
- TPO3: To improve Active Travel routes along the north/south A4119 corridor with the aim of improving the health and well-being of the local community.
- TPO4: To improve environmental conditions, including air quality and noise and to minimise the overall impact on the environment within the north/south A4119 corridor.
- TPO5: To improve the patronage of public transport and improve public transport reliability within the north/south A4119 corridor.
- TPO6: To improve safety and reduce the number of collisions and KSIs on the A4119 between Talbot Green and Coedely.

The Objectives are generally wide ranging, which is important as they are able to consider a range of topics that a transport intervention should be measured against. However, to align with the main issues that have been identified, the TPOs have been ranked in the order shown above. The option to dual the single carriageway A4119 all the way north to Coedely Roundabout (Option 1) aligns well with the majority of the Transport Planning Objectives. Options that promote non-car use (public transport and Active Travel) will never meet such a wide range of objectives. However, in relation to some, they score reasonably well. The appraisal of Options 1, 2, 11, and 15 as well as Option 22 (Do Minimum) against the Transport Planning Objectives (TPOs) is shown in Table 2.3.

**Table 2.3: Appraisal of Individual Options against Transport Planning Objectives (TPOs)**

Option		TPO1	TPO2	TPO3	TPO4	TPO5	TPO6
No.	Name						
1	Dual single carriageway A4119 (Stink Pot Hill)	+++	+++	0	+	+	+
2	Park & Ride/Park & Share facility within SSA 14.1 development site	0	0	0	+	+	0
11	Active Travel route adjacent to A4119	0	0	++	+	0	0
15	Park & Ride expansion north of the study area	0	0	0	+	+	0
22	Do Minimum	0	0	0	0	0	0

**Key**

<b>Large positive</b> (+++)	<b>Moderate positive</b> (++)	<b>Slight positive</b> (+)	<b>Neutral</b> (0)
<b>Slight negative</b> (-)	<b>Moderate negative</b> (--)	<b>Large negative</b> (---)	

It should be noted that in the Strategic Outline Case, which the above is a summary of, no consideration was given to how the TPOs could be made SMART. However, as part of the appraisal work that has been undertaken on the individual options (A, B, and C) plus D, Do Minimum that comprise the short-list, this has been considered. The way that the TPOs can be made Specific, Measurable, Achievable, Realistic, and Time-based is contained in Section 2.5: Strategic Case Appraisal of the Short-List of Options.

The information contained in Table 2.3 has been taken from Appendix 1.12 (Worksheet 10) in Section 1 of the Impacts Assessment Report.

### 2.2.5 Overall

Appraisal work has been undertaken on a wide range of proposals in the Strategic Outline Case. These include the ones that are the subject of this Summary and which have performed sufficiently well to be considered for inclusion in the short-list of options that have been appraised in more detail in this Outline Business Case.

Although the main Strategic Case is contained in the Strategic Outline Case report, the information presented in this Summary is considered sufficient to show that there will be considerable benefits to be gained through a transport intervention in the Coedely area and therefore a strong strategic case exists. Although the options will benefit the transport network in different ways, there will be greater benefits to be gained collectively, which is why the packaging of options is considered important. Overall benefits will be felt both locally and more widely including the ability to improve access to the SSA 14.1 development area. This will, in turn, benefit employment prospects.

## 2.3 Additional Information

Since the Strategic Outline Case was completed in January 2018, further transport studies have been completed within the A4119 corridor. They are listed below:

- A4119 Corridor Talbot Green Roundabout to M4 Junction 34, Strategic Outline Case Report (WelTAG Stage 1), May 2018; and
- A4119 Corridor Assessment: Traffic Forecast & Capacity Assessment Report, May 2018.

Although the first report is not really relevant to Coedely due to its study area only going as far north as Talbot Green Roundabout, the second one covers a large study area, which includes Coedely. This extends from Tonyrefail in the north, to Junction 34 of the M4 in the south. This transport study has informed this Outline Business Case in terms of determining which dualling option (Option 1 or 1A) should be included in the three packages of options that includes this proposal (A, B, and C). In addition, the report has informed the overall appraisal of the short-list of packaged options, which has led to the identification of a Preferred Option. The A4119 Corridor Assessment: Traffic Forecast & Capacity Assessment Report is included as Appendix 2.0 (Section 2) in the Impacts Assessment Report.

## 2.4 Appraisal Work for A4119 Dualling Options 1 and 1A

Option 1 is the original proposal for dualling the A4119 between Coedely Roundabout and the South Wales Fire & Rescue Service headquarters roundabout further south. It is included in the Impacts Assessment Report as Appendix 2.2 in Section 2. It includes basic footway provision on both sides of the A4119. Option 1A is the alternative dualling scheme with the removal of the southern roundabout. This is included as Appendix 2.3 in Section 2 of the Impacts Assessment Report. It should be noted that this also shows part of the Active Travel Option 11 that is part of some of the packaged options being appraised.

A Transport User Benefit Appraisal (TUBA), Economic Assessment and option comparison has been undertaken for the two dualling options. The Technical Report on the TUBA appraisal is included as Appendix 2.1 in Section 2 of the Impacts Assessment Report and is summarised below. The economic assessment of Options 1 and 1A follows this.

### 2.4.1 TUBA Appraisal

The Paramics model that was developed for the A4119 Corridor Assessment: Traffic Forecast and Capacity Assessment Report was utilised and compared the Present Value of Benefits (PVB) of each option. Benefits that were quantified were Journey Times, Vehicle Operating Costs, Carbon Emissions, and Indirect Taxation. Benefits were derived from various vehicle user classes. The appraisal indicated that the options would give the following PVB values taking account of all monetised scheme benefits:

Option 1 – £15.5 million

Option 1A – £21.2 million

These benefits represent present values discounted to 2010 in 2010 prices (£000). It can be clearly seen that Option 1A, A4119 dualling with the removal of the southern roundabout gives a higher PVB.

#### 2.4.2 *Economic Assessment*

The economic assessment of dualling Options 1 and 1A has been undertaken in accordance with the Welsh Government Transport Appraisal Guidance (WeITAG), and the Department for Transport Appraisal Guidance (WebTAG). It should be noted that the economic assessment that followed the TUBA appraisal was based on earlier versions of the cost estimates for Options 1 and 1A. This has resulted in BCR (Benefit to Cost Ratio) values that are slightly different to the equivalent value in Chapter 3, the Transport Case where revised cost estimates were utilised. This is in respect of Option 1A only.

#### 2.4.3 *Monetised Benefits*

Monetised benefits include values of time, vehicle operating costs and greenhouse gas emissions benefits. Benefits are calculated by quantifying the differences between a Do Minimum (without the scheme) scenario and a Do Something (with the scheme) scenario.

The time and distance benefits associated with each option were obtained from the A4119 Paramics microsimulation model used in the A4119 Corridor: Traffic Forecast and Capacity Assessment Study (April 2018). The benefits included within the analysis represent those gained from the AM, PM and Interpeak periods. TUBA quantified the benefits within the analysis using benefit values obtained from the DfT Transport Appraisal Guidance.

The full monetised output is included in the Coedely Dualling TUBA and Option Comparison report (May 2018) provided in Appendix 2.1 in Section 2 of the Impacts Assessment Report.

#### 2.4.4 *Costs*

Cost estimates have been produced for both dualling options, 1 and 1A. They include Optimism Bias, land and risk costs, and preparation costs and are presented in 2010 prices in accordance with DfT guidance as shown below. Cost estimates in 2018 prices are provided in Tables 4.1 to 4.3 in Chapter 4 together with further details as to what they include. A breakdown of the cost estimates is included in Appendix 2.8 and 2.9 in Section 2 of the Impacts Assessment Report. It should be noted that the cost estimate for Option 1A is derived from adding its cost to Option 1 as the former represents the additional cost of extending the dual carriageway.

- Option 1 – £4,745,651
- Option 1A – £5,306,750

#### 2.4.5 *Public Accounts*

From the TUBA assessments it has been calculated that the Coedely Dualling options (1 and 1A) will result in the following cost to the public accounts:

- Option 1 £428k
- Option 1A £376k

These are 2010 values and are generated as a result of loss of indirect tax revenues, such as fuel savings from the scheme, over the 60 year economic assessment period. The loss of indirect tax revenues is reduced from the overall monetised scheme benefits, which results in the following overall Present Value of Benefits (PVB) in 2010 prices:

- Option 1 £15.5 million
- Option 1A £21.2 million

These PVB values are also shown under the TUBA Appraisal above.

The capital cost and maintenance costs of each scheme is a total cost to the public accounts and amounts to the following costs in 2010 prices:

- Option 1 £4,905,452 (including £159,800 maintenance costs)
- Option 1A £5,466,550 (including £170,357 maintenance costs)

#### 2.4.6 Value for Money Assessment

The initial Value for Money (VfM) of a scheme is identified based upon the Benefit to Cost Ratio (BCR) of the scheme, using monetised impacts in line with WebTAG guidance. The categories recognised by government are shown in Table 2.4 below:

**Table 2.4: BCR Value for Money**

BCR Value	Value for Money (VfM)
Less than 1	Poor VfM
Between 1.0 and 1.5	Low VfM
Between 1.5 and 2.0	Medium VfM
Between 2.0 and 4.0	High VfM
Greater than 4.0	Very high VfM

The resulting Benefit to Cost Ratio (BCR) for each scheme is presented below:

- Option 1 – 3.2
- Option 1A – 3.9

It can be seen that both Option 1 and Option 1A result in a BCR of between 3.2 and 3.9 which is classed as High VfM, with Option 1A resulting in the highest BCR at 4.0. In light of the analysis described above, Option 1A is recommended as the best performing of the two dualling options. As a consequence, Option 1A has replaced Option 1 in the following Strategic Case Appraisal of the Short-List of Packaged Options.

It should be noted that the above economic assessment was based on earlier versions of the cost estimates for Options 1 and 1A. This has resulted in a BCR value for Option 1A that is slightly different to the equivalent value in Chapter 3, the Transport Case where revised cost estimates were utilised.

Further information on the economic assessment of Options 1 and 1A is contained in Appendix 2.19 in Section 2 of the Impacts Assessment Report.

## 2.5 Strategic Case Appraisal of the Short-List of Packaged Options

Whilst Section 2.2 summarises the Strategic Case from the Strategic Outline Case report, including the individual options that emerged from the appraisal work, this section appraises the overall options (A, B, and C) that the individual options were packaged into at the end of the Strategic Outline Case report. Do Minimum (Option D) has also been included. The packaged options are shown below together with the individual options that they are comprised of. Option 1 is replaced by Option 1A from the appraisal work described in Section 2.4. The description is also altered slightly to reflect the change.

*A. Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire & Rescue Service headquarters roundabout (Option 1A);*

*B. Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire & Rescue Service headquarters roundabout, plus an adjacent Active Travel route, (Option 1A and Option 11);*

*C. Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire & Rescue Service headquarters roundabout, an adjacent Active Travel route, a Park & Ride/Park & Share facility within the SSA 14.1 development site, plus Park & Ride expansion north of the study area (Option 1A, Option 2, Option 11, and Option 15);*

*D. Do Minimum (Option 22).*

Layouts of the individual options that comprise Options A, B, and C are included in Section 2 of the Impacts Assessment Report. The Appendix numbers are as follows:

- Option 1A - Appendix 2.3
- Option 11 - Appendix 2.3 (part), 2.4A and 2.4B
- Option 2 - Appendix 2.6
- Option 15 - Appendix 2.7

### 2.5.1 *The Wales Transport Strategy (WTS)*

Table 2.5 shows the appraisal of the packaged options against the Wales Transport Strategy outcomes.

Rather than reappraise Option 1A (the sole element of Packaged Option A) against the WTS outcomes, which are covered in 2.2.1, the same scores that were achieved by Option 1 have generally been assumed for the revised dualling option. Any changes made have been minimal and have resulted from a greater understanding of individual options and their impacts.

Although Packaged Option A performs reasonably well against the outcomes of the WTS, there are improvements when it is combined with other options.

Packaged Option B adds an adjacent Active Travel route to Option A, which mainly helps meet the *healthier lifestyles* part of the Social outcome, which is not met by the dualling option alone. It also helps meet other Social and Environment outcomes. Although the addition of two Park &

Ride sites (one incorporating Park & Share), both as part of Packaged Option C, will be beneficial to the transport network, in terms of the overall outcomes of the WTS, there is no discernible difference.

The performance of Do Minimum (Option D) against the WTS outcomes remains the same as in the previous appraisal, being generally neutral or slightly negative.

Even though the improvements are small, it is clear that in relation to the outcomes of the Wales Transport Strategy, there are benefits in packaging options together. This favours Packaged Options B and C.

Table 2.5 is also included in Section 2 of the Impacts Assessment Report as Appendix 2.13 (Worksheet 14).

**Table 2.5: Packaged Options appraised against WTS Outcomes**

Packaged Option Reference	Option (Long list option number)	Wales Transport Strategy Outcomes																
		Social					Economy					Environment						
		Improve access to healthcare	Improve access to education, training and lifelong learning	Improve access to shopping and leisure facilities	Encourage healthy lifestyles	Improve the actual and perceived safety of travel	Improve access to employment opportunities	Improve connectivity within Wales and internationally	Improve the efficient, reliable and sustainable movement of people	Improve the efficient, reliable and sustainable movement of freight	Improve access to visitor attractions	Increase the use of more sustainable materials	Reduce the contribution of transport to greenhouse gas emissions	Adapt to the impacts of climate change	Reduce the contribution of transport to air pollution and other harmful emissions	Improve the impact of transport on the local environment	Improve the impact of transport on our heritage	Improve the impact of transport on biodiversity
A	<ul style="list-style-type: none"> <li>• Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> </ul>	+	+	+	0	0	++	+	+	+	+	+	+	+	0	-	0	-
B	<ul style="list-style-type: none"> <li>• Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> <li>• Adjacent Active Travel route (Option 11)</li> </ul>	+	+	+	+++	+	++	+	+	+	+	+	+	+	+	+	0	0
C	<ul style="list-style-type: none"> <li>• Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> <li>• Adjacent Active Travel route (Option 11)</li> <li>• Park &amp; Ride/Park &amp; Share facility within SSA 14.1 development site (Option 2)</li> <li>• Park &amp; Ride expansion north of the study area (Option 15)</li> </ul>	+	+	+	+++	+	++	+	+	+	+	+	+	+	+	+	0	0
D	<ul style="list-style-type: none"> <li>• Do Minimum (Option 22)</li> </ul>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	0

**Key**

Large positive (+++)	Moderate positive (++)	Slight positive (+)	Neutral (0)	Slight negative (-)	Moderate negative (--)	Large negative (---)
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To aid the choice of the Preferred Option to take forward to WelTAG Stage 3: Full Business Case, the appraisal of the packaged options against the main headings of the Wales Transport Strategy has been summarised in tabular form below (Table 2.6). This has been carried forward to Table 7.1 in Chapter 7.

**Table 2.6: Summary Table of Packaged Options appraised against WTS Outcomes**

Packaged Option Reference	Option (Long list option number)	Social	Economy	Environment
A	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> </ul>	+	++	0
B	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> <li>Adjacent Active Travel route (Option 11)</li> </ul>	++	++	+
C	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> <li>Adjacent Active Travel route (Option 11)</li> <li>Park &amp; Ride/Park &amp; Share facility within SSA 14.1 development site (Option 2)</li> <li>Park &amp; Ride expansion north of the study area (Option 15)</li> </ul>	++	++	+
D	<ul style="list-style-type: none"> <li>Do Minimum (Option 22)</li> </ul>	0	0	0

**Key**

Large positive (+++)	Moderate positive (++)	Slight positive (+)	Neutral (0)
Slight negative (-)	Moderate negative (--)	Large negative (---)	

**The Well-being of Future Generations (Wales) Act 2015 (WBOFGA)**

Table 2.7 shows the appraisal of the packaged options against the Well-being of Future Generations (Wales) Act goals.

Rather than reappraise Option 1A (the sole element of Packaged Option A) against the WBOFGA goals, which are covered in 2.2, the same scores that were achieved by Option 1 have generally been assumed for the revised dualling option. Any changes have been minimal and have resulted from a greater understanding of individual options and their impacts.

Although Packaged Option A performs well against the goals of the WBOFGA, there are improvements to be seen when it is combined with other options.

Packaged Option B adds an adjacent Active Travel route, which mainly helps meet the *more equal Wales* and *healthier lifestyles* part of the WBOFGA goals, which are not met by the dualling option alone. Although the addition of two Park & Ride sites (one incorporating Park & Share), both as part of Packaged Option C, will be beneficial to the transport network, in terms of the overall goals of the WBOFGA, there is no discernible difference.

The performance of Do Minimum (Option D) against the WBOFGA goals remains the same as in previous appraisal, being generally neutral.

Even though the improvements are small, it is clear that in relation to the goals of the WBOFGA, there are benefits in packaging options together. As with the Wales Transport Strategy Outcomes, this favours Packaged Options B and C.

To aid the choice of the Preferred Option to take forward to WelTAG Stage 3: Full Business Case, the appraisal of the packaged options against the goals of the Well-being of Future Generations (Wales) Act 2015 has been carried forward to Table 7.1 in Chapter 7. This is based on the overall summary on the far right of Table 2.6.

Table 2.7 (excluding the summary column) is also included in Section 2 of the Impacts Assessment Report as Appendix 2.14 (Worksheet 15).

**Table 2.7: Packaged Options appraised against the Well-being of Future Generations (Wales) Act 2015 Goals**

Packaged Option Reference	Option (Long list option number)	A globally responsible Wales	A Wales of vibrant culture and thriving Welsh language	A Wales of cohesive communities	A more equal Wales	A healthier Wales	A resilient Wales	A prosperous Wales	Overall Summary
A	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> </ul>	++	0	+	+	0	+	++	+
B	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> <li>Adjacent Active Travel route (Option 11)</li> </ul>	++	0	+	++	++	+	++	++
C	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> <li>Adjacent Active Travel route (Option 11)</li> <li>Park &amp; Ride/Park &amp; Share facility within SSA 14.1 development site (Option 2)</li> <li>Park &amp; Ride expansion north of the study area (Option 15)</li> </ul>	++	0	+	++	++	+	++	++
D	<ul style="list-style-type: none"> <li>Do Minimum (Option 22)</li> </ul>	0	0	0	0	0	0	0	0

**Key**

<b>Large positive</b> (+ + +)	<b>Moderate positive</b> (+ +)	<b>Slight positive</b> (+)	<b>Neutral</b> (0)
<b>Slight negative</b> (-)	<b>Moderate negative</b> (- -)	<b>Large negative</b> (- - -)	

*Regional and Local Plans*

There is no mention of any transport schemes within the Coedely area in either the South East Wales Valleys Local Transport Plan, the Rhondda Cynon Taf Local Development Plan, or the RCT Corporate Plan. It is therefore not considered necessary to appraise the packages of options against these documents. This was also the case in the Strategic Outline Case report.

*Transport Planning Objectives*

As outlined in Section 2.2, the Transport Planning Objectives have been made SMART and the way that they can be made Specific, Measureable, Achievable, Realistic, and Time-based is contained in Table 2.8. An appraisal of the packaged options against the TPOs follows this in Table 2.9.

For convenience, the TPOs are reproduced below.

- TPO1: To improve highway journey times on the north/south A4119 corridor and improve access to the M4.
- TPO2: To improve the economic and employment opportunities in the Ely Valley and the Rhondda, and provide employment and social benefits.
- TPO3: To improve Active Travel routes along the north/south A4119 corridor with the aim of improving the health and well-being of the local community.
- TPO4: To improve environmental conditions, including air quality and noise and to minimise the overall impact on the environment within the north/south A4119 corridor.
- TPO5: To improve the patronage of public transport and improve public transport reliability within the north/south A4119 corridor.
- TPO6: To improve safety and reduce the number of collisions and KSIs on the A4119 between Talbot Green and Coedely.

**Table 2.8: SMART Transport Planning Objectives**

Transport Planning Objective		SMART Objective				
		Specific	Measurable	Achievable	Realistic	Time-based
<b>TPO1</b>	To improve highway journey times on the north/south A4119 corridor and improve access to the M4.	Yes. Very specific as fundamental to the aims of improvements	Yes. Before and after journey time measurements	Yes, straightforward to do	Yes	Yes. Timescales need to be agreed but 'before' journey times prior to the start of any improvements
<b>TPO2</b>	To improve the economic and employment opportunities in the Ely Valley and the Rhondda, and provide employment and social benefits.	Yes, as above	Yes. In addition to the above, levels of economic activity in Wards before and after implementation of improvements. Also in terms of interest in development sites before and after implementation of improvements.	Yes, as above	Yes	Yes, as above
<b>TPO3</b>	To improve Active Travel routes along the north/south A4119 corridor with the aim of improving the health and well-being of the local community.	Yes, as above	Yes, in terms of a comparison between the length of local Active Travel facilities before and after implementation. Less easy to achieve in terms of usage and benefits and requires consideration of methodology to use. Likely to be difficult with regards to identifying health benefits	Yes, but specific indicators will need to be developed	Yes	Yes. Before and after comparisons
<b>TPO4</b>	To improve environmental conditions, including air quality and noise and to minimise the overall impact on the environment within the north/south A4119 corridor.	Yes	Yes. With regards to air quality, historic readings will be compared with those following improvements. With regards to noise, before and after measurements can be compared.	Yes, but unlikely to be straightforward		Yes, but would have to be over a considerable time period
<b>TPO5</b>	To improve the patronage of public transport and improve public transport reliability within the north/south A4119 corridor	Yes	Yes. Increased public transport can be measured by comparing ticket sales before and after improvements have been made. Also journey times. Usage of additional Park & Ride facilities can be compared to the situation with existing provision	Yes	Yes	Yes. Before and after comparisons
<b>TPO6</b>	To improve safety and reduce the number of collisions and KSIs on the A4119 between Talbot Green and Coedely.	Yes	Yes. Comparison of collisions and KSIs before and after implementation of improvements	Yes	Yes	Yes. Before and after comparisons

Table 2.9 shows the appraisal of packaged options against the Transport Planning Objectives. Rather than reappraise Option 1A (the sole element of Packaged Option A) against the TPOs, the same scores that were achieved by Option 1 have generally been assumed for the revised dualling option. Any changes that have been made have been minimal and have resulted from a greater understanding of individual options and their impacts. The ranking of the TPOs is unchanged.

**Table 2.9: Packaged Options Appraised against Transport Planning Objectives (TPOs)**

Packaged Option Reference	Option (Long list option number)	TPO1	TPO2	TPO3	TPO4	TPO5	TPO6
A	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> </ul>	+++	+++	0	0	+	+
B	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> <li>Adjacent Active Travel route (Option 11)</li> </ul>	+++	+++	++	+	+	+
C	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> <li>Adjacent Active Travel route (Option 11)</li> <li>Park &amp; Ride/Park &amp; Share facility within SSA 14.1 development site (Option 2)</li> <li>Park &amp; Ride expansion north of the study area (Option 15)</li> </ul>	+++	+++	++	+	+	+
D	<ul style="list-style-type: none"> <li>Do Minimum (Option 22)</li> </ul>	0	0	0	0	0	0

**Key**

Large positive (+++)	Moderate positive (++)	Slight positive (+)	Neutral (0)
Slight negative (-)	Moderate negative (--)	Large negative (---)	

Although Packaged Option A performs reasonably well or very well against the majority of the TPOs, there are improvements when this is combined with other options.

Packaged Option B adds an adjacent Active Travel route, which helps meet the Active Travel objective. This is not met by the dualling option alone. Although the addition of two Park & Ride sites (one incorporating Park & Share), both as part of Packaged Option C, will be beneficial to the transport network, in terms of the overall TPOs, there is no discernible difference.

The performance of Do Minimum (Option D) against the Transport Planning Objectives remains the same as in previous appraisal, being generally neutral.

Even though the improvements are small, it is clear that in relation to the Transport Planning Objectives, there are benefits in packaging options together. As with the Wales Transport Strategy outcomes and the Well-being of Future Generations (Wales) Act goals, this favours Packaged Options B and C.

To aid the choice of the Preferred Option to take forward to WelTAG Stage 3: Full Business Case, the appraisal of the packaged options against the Transport Planning Objectives has been carried forward to Table 7.1 in Chapter 7.

Table 2.9 is also included in Section 2 of the Impacts Assessment Report as Appendix 2.15 (Worksheet 16).

## 2.6 Summary of the Strategic Case of the Short-List of Packaged Options

The Strategic Case includes an economic assessment of two A4119 dualling options (1 and 1A). Option 1 was the original dualling option between Coedely Roundabout and the South Wales Fire & Rescue Service headquarters roundabout. Option 1A removes this roundabout and extends the dualling southwards.

The dualling Option 1A has a Benefit to Cost Ratio of 3.9 against 3.2 for Option 1. Option 1A has replaced Option 1 in the short-list of packaged options that have been appraised in the Strategic Case.

The Strategic Case appraises the packaged options in the short-list against the Wales Transport Strategy, the Well-being of Future Generations (Wales) Act 2015, and the Transport Planning Objectives. Regional and Local Plans have also been considered. The appraisal clearly indicates that by combining individual options into packages, greater strategic benefits will be seen, particularly the addition of an Active Travel route to the dualling option for the A4119. This will help meet outcomes, goals, and objectives that a purely highways based option is unable to do.

The Strategic Case appraisal indicates that a strong strategic case remains for a transport intervention within the A4119 corridor. Although Packaged Option A performs well overall, the addition of Active Travel facilities (to give Packaged Option B) and Park & Ride/Share facilities (to give Packaged Option C), gives added benefits that are not met by the dualling option alone. Option D, Do Minimum will be at best, neutral against the criteria used in the Strategic Case assessments.

However, based on the generally high level nature of appraisal in this Strategic Case, the public transport additions resulting from Packaged Option C do not result in any significant overall benefits. The significance of these additions can only be determined through appraisal carried out in the Transport Case.

## 3. The Transport Case

### 3.1 Introduction

At the Strategic Outline Case (WeITAG Stage 1), no design or appraisal work for ways of improving transport in the Coedely area was undertaken specifically. However, a traffic assessment was prepared for Coedely roundabout and the single carriageway A4119 south to the South Wales Fire & Rescue Service headquarters roundabout in September 2016. This was prior to the commencement of WeITAG. This is included as Appendix 1.1 in Section 1 of the Impacts Assessment Report.

This Transport Case is in two parts. Part 1 is a summary of the appraisal that was carried out in the Strategic Outline Case and focuses on the individual options (1, 2, 11, and 15) that form the three packaged options, plus Do Minimum (Option 22) that emerged from the Stage 1 work. Part 2 considers the packaged options. Packaged Options A, B, and C contain the preferred dualling Option 1A that was appraised in Chapter 2: the Strategic Case.

### 3.2 Summary of the Transport Case from the Strategic Outline Case Report

With the main issues being related to Transport, Development and Access, Employment, Environment, and Active Travel, it places a large burden on individual options to address all of these topics. The attractiveness of Option 1 is that it is, in effect, making better use of the existing highway network to solve a problem rather than proposing the building of a completely new road. This lessens its overall impact. It also links directly to the SSA 14.1 development site that is in the Local Development Plan.

None of the other road based options considered in the Strategic Outline Case solely focus on the A4119 in the Coedely area and as a result, they do not tackle full-on the identified problems.

Options that promote sustainable transport and Active Travel (including Option 11), will do little to benefit the north/south corridor in terms of addressing the main problem of traffic congestion. The creation of a longer distance sustainable commuter route is a long term aspiration of Rhondda Cynon Taf CBC and sections already exist. The provision of a formal route through the proposed Coedely development site and continuation to the north will help build a network. However, the addition of facilities adjacent to the A4119 will, due to their high profile position, help promote walking and cycling.

Options linked to public transport will have a role to play in giving more choices to travellers although none are likely to address the identified problems in any meaningful way. Although there is an option related to Park & Ride/Share (2), with a site within the SSA 14.1 development area proposed, careful consideration as to the destinations served and means of operation, funding and likely revenue are required before this can be considered viable. This also applies to Option 15, but probably to a greater extent given its location north of the study area.

A Do Minimum option (Option 22) would likely include minor improvements on the A4119 but would not address the identified problems, which would likely worsen over time, particularly with the development of SSA 14.1.

### 3.2.1 Appraisal Summary Table

Table 3.1 shows the high level Appraisal Summary Table (AST) with just Options 1, 2, 11, 15, and 22 appraised. NYA indicates that impacts have not been analysed for whatever reason. The information contained in Table 3.1 has been taken from Appendix 1.13 (Worksheet 11) in Section 1 of the Impacts Assessment Report.

**Table 3.1: High Level Appraisal of Individual Options (Appraisal Summary Table)**

Criteria	Qualitative Assessment				
	Option 1 (A4119 dualling)	Option 2 (Park & Ride/Share site at Coedely)	Option 11 (Active Travel route)	Option 15 (Park & Ride site north of Study Area)	Option 22 (Do Minimum)
<b>Economy</b>					
Business Users & Reliability Impact	NYA	NYA	NYA	NYA	NYA
Regeneration	++	0	0	0	0
Wider Impacts	++	0	0	0	0
<b>Environment</b>					
Noise	0	0	0	0	0
Air Quality	0	0	0	0	0
Greenhouse Gases	0	0	0	0	0
Landscape	0	0	0	0	0
Townscape	0	0	0	0	0
Historic Landscape	0	0	0	0	0
Biodiversity	-	0	0	0	0
Water Environment	0	0	0	0	0
<b>Social</b>					
Commuting and Other Users	++	+	+	+	0
Reliability Impact on Commuting and Other Users	++	+	+	+	0
Physical Activity	0	0	+++	0	0
Journey Quality	++	+	+	+	0
Accidents	NYA	NYA	NYA	NYA	NYA
Security	NYA	NYA	NYA	NYA	NYA
Access to Services	+	0	0	0	0
Affordability	NYA	NYA	NYA	NYA	NYA
Severance	0	0	0	0	0
Option Values	+	0	0	0	0
<b>Public Accounts</b>					
Cost to Broad Transport Budget	NYA	NYA	NYA	NYA	NYA
Indirect Tax Revenues	NYA	NYA	NYA	NYA	NYA

#### Key

Large positive (+++)	Moderate positive (++)	Slight positive (+)	Neutral (0)
Slight negative (-)	Moderate negative (--)	Large negative (---)	

Option 1, the dualling of the A4119 between Coedely and the South Wales Fire & Rescue Service headquarters, plus roundabout improvements aligns well with the majority of the main criteria, in particular Regeneration and Wider Impacts (Economic), and Commuting and Reliability Impact (Social). Environmental impact may well be fairly neutral.

Option 11 (an Active Travel route) will be beneficial in terms of many of the Social sub-criteria whilst avoiding environmental impact. Even though an Active Travel route already exists to the immediate west of the A4119 (along a former railway line), provision of shared use facilities next

to the road would be beneficial as well due to its high profile location with natural surveillance. Some of the public transport options will be beneficial to users although they are unlikely to benefit the Economic criteria.

Options 2 and 11, as well as a Do Minimum option (Option 22) will be neutral against the three main criteria.

The information contained in Table 3.1 has been taken from Appendix 1.13 (Worksheet 11) in Section 1 of the Impacts Assessment Report.

### Tackling Identified Problems

Table 3.2 includes a brief description as to how Options 1, 2, 11, 15, and 22 might tackle the identified problems and lists any other relevant issues that may have a bearing on their viability. The information contained in Table 3.2 has been taken from Appendix 1.14 (Worksheet 12) in Section 1 of the Impacts Assessment Report.

**Table 3.2: How the Individual Options will Tackle the Identified Problems, and Other Comments**

Opt. No.	Option	How the Individual Options will Tackle the Identified Problems	Other Comments	Appra.
1	Dual single carriageway A4119 (Stink Pot Hill)	This option will widen the existing A4119 to a dual carriageway standard, which will require alterations to the two terminal roundabouts. The dualling will increase link capacity and the roundabout improvements will increase the capacity through the terminal junctions. The improvements will reduce queuing and congestion on this part of the A4119 and will also accommodate additional traffic from the SSA 14.1 development.	It is considered that the lack of a dual carriageway all the way north to Coedely roundabout is reducing the attractiveness of the SSA 14.1 to developers.	+++
2	Park & Ride/Park & Share facility within SSA 14.1 development site	A Park & Ride would have the potential to reduce the number of vehicles on the A4119 to the south of Coedely and in turn reduce queuing and congestion. It could be used for sustainable access to the Talbot Green retail area.	Other than B1 and B2 use, there are no definite plans for the SSA 14.1 site.	+
11	Active Travel route adjacent to A4119	Although this option is unlikely to address the identified problems on the A4119 and Coedely roundabout, it will give greater sustainable travel choice in this part of the Ely Valley, particularly if it can be linked to the completion of the Llantrisant to Tonyrefail Community Route.	There is already an Active Travel Route that follows a former railway to the immediate west of the A4119.	++
15	Park & Ride expansion north of the study area	Although this option is non-specific in its location, it is considered that a Park & Ride site further north to serve the Rhondda Valleys could be beneficial. If successful, it could reduce north/south traffic flows on the A4119 in the Coedely area.	Locating a suitable site for a more northerly Park & Ride facility may be difficult given land constraints.	0
22	Do Minimum	Other than ensuring that the A4119 continues to be fit for purpose in maintenance terms, this option will not change the way that the A4119 operates. With no improvements, the situation will deteriorate.	Regular maintenance only.	-

A highways based solution is best placed to address the identified problems on the A4119 in the Coedely area. Of these, Option 1 focuses on this completely. Sustainable travel and public transport improvements (Park & Ride/Share) will do little to address the identified problems although they too have a part to play in improving travel choices in the Ely Valley.

### 3.3 Transport Case Appraisal of the Short-List of Packaged Options - Economics

#### 3.3.1 *Introduction*

Whilst Section 3.2 summarises the Transport Case from the Strategic Outline Case report, including the individual options that emerged from the appraisal work, this section appraises, in economic terms, the overall options (A, B, and C) that the individual options were packaged into at the end of the Strategic Outline Case report. There is no economic assessment of the Do Minimum option, as all other options assess the difference in benefits between “Doing Something” versus “Doing Minimum”. The packaged options are as described in Section 3.2 and include Option 1A in lieu of Option 1 for the dualling of the A4119.

#### 3.3.2 *Economic Assessment*

The economic assessment of the three packaged options has been undertaken in accordance with the Welsh Government Transport Appraisal Guidance (WelTAG), and the Department for Transport Appraisal Guidance (WebTAG).

Section 2.4 contains the TUBA appraisal and economic assessment of dualling Option 1A, which is the sole element of Option A for the packaged options based on a revised cost estimate over Option 1. The cost estimate for Option 1A (A) in 2018 prices is included in Appendix 2.8 of Section 2 of the Impacts Assessment Report. The Benefit to Cost Ratio of Option A is as follows:

**Option A**     **3.9.** This represents High Value for Money.

There follows an economic assessment of Packaged Options B and C.

**Packaged Option B** (dualling of the A4119, removal of the South Wales Fire & Rescue Centre headquarters roundabout [individual Option 1A] plus an adjacent Active Travel route [Individual Option 11])

#### 3.3.3 *Monetised Benefits*

In addition to the monetised benefits derived from the individual dualling Option 1A, it is likely that the proposed Active Travel route would generate an additional benefit. However, it is very difficult to estimate the likely benefit as there is no way of knowing the number of walking and cycling trips that will use the Active Travel route without more detailed investigation.

In light of the above, a high level assessment has been undertaken to indicate the monetised benefit that may be expected based on a stated level of additional walking and cycling trips. This has been undertaken in accordance with TAG Unit A5.1 Active Mode Appraisal and using the WebTAG databook, May 2018.

As there is an Active Travel route currently provided to the immediate west of the A4119, a number of journeys may be transferred from the existing route to the new route. However, it is very difficult to estimate the trips that will transfer, and the benefit gained from the improved journey quality of the new route compared with the existing route is likely to be minimal. As such, the benefit expected from transferred trips has been omitted and the monetised benefit estimation has been limited to additional trips.

Monetised benefit has been calculated in terms of the benefit gained from improved journey quality and the benefit gained from physical activity benefits.

The monetised benefits calculation is based on the following parameters:

- Additional Cycling Trips: 10 (Low Estimate), 40 (High Estimate) bicycle trips in one day;
- Additional Walking Trips: 10 (Low Estimate), 40 (High Estimate) walking trips in one day;
- Distance: 1560 metres (1.56 kilometres);
- Cycle Journey Time: 6 minutes (based on 10mph average cycling speed);
- Journey time value (Cyclists): benefit to new users, utilising the 'rule of half' is 3.51 pence per minute (taken from WebTAG);
- Journey time value (Walkers): benefit to new users, utilising the 'rule of half' is 4.6 pence per kilometre (consists of street lighting at 3.7 pence/kilometre and surface evenness at 0.9 pence/kilometre), taken from WebTAG).

### 3.3.4 Improved Journey Quality Benefits

Improved journey quality has been estimated using the following data supplied in the WebTAG databook 2018:

- Value of journey ambience benefit of cycle facilities (Table 4.1.6);
- Value of aspects in pedestrian environment (Table 4.1.7).

Walking benefits are assumed to include the benefit of street lighting and even surfaces. Cycling benefits are assumed to be the provision of a segregated cycle path to new users (utilising the 'rule of half').

The improved journey quality benefit that may be expected based on a high and low estimate of additional trips, with the 'rule of half' applied is shown in Table 3.3. This has been discounted to 2010 prices and calculated for the 60 year appraisal period.

**Table 3.3: Active Travel Monetised Benefit – Journey Quality**

Walking Trips	Cycling Trips	Annual Walking Trips Benefit (£)	Annual Cycling Trips Benefit (£)	Total Annual Benefit (£)	Total Benefit for Economic Period (£) – 60 years
10	10	131	400	531	8,809
40	40	524	1599	2,123	34,121

The high level assessment indicates that the Active Travel route may be expected to generate between £8,809 and £34,121 of journey quality benefit over the 60 year appraisal period based on an additional 10 – 40 walking and cycling trips per day respectively.

### 3.3.5 Physical Activity Benefits

The physical activity benefits that may be gained from Packaged Option B have been estimated using the World Health Organisation (WHO) Health Economic Assessment Tool (HEAT). This tool is designed to assist in the economic assessment of the health benefits of walking and/or cycling by estimating the value of reduced mortality that results from specified amounts of walking or cycling.

The forecast physical benefit that may be expected based on a high and low estimate of additional trips is shown in Tables 3.4 and 3.5. WHO HEAT Tool benefits are presented in 2015 prices and the output reports are provided in Appendix 2.19 in Section 2 of the Impacts Assessment Report.

**Table 3.4: Active Travel Monetised Benefit – Physical Benefits (WHO HEAT Tool estimates)**

Walking Trips	Cycling Trips	Annual Walking Trips Benefit (£)	Annual Cycling Trips Benefit (£)
10	10	9,000	17,000
40	40	34,000	67,000

**Table 3.5: Active Travel Monetised Benefit – Physical Benefits (Annual Benefit)**

Walking Trips	Cycling Trips	Total Benefit for Economic Period (£) – 60 yrs
10	10	394,593
40	40	1,532,840

The WHO HEAT tool estimates indicate that the Active Travel route may be expected to generate between £394,593 and £1,532,840 of physical benefit over the 60 year appraisal period based on an additional 10 – 40 walking and cycling trips per day respectively.

### 3.3.6 Costs

A cost estimate has been produced for Packaged Option B. It includes Optimism Bias, land and risk costs and are presented below in 2010 prices in accordance with DfT guidance. The cost estimates for the individual elements of this package of options (based on 2018 prices) are contained in Section 2 of the Impacts Assessment Report (Appendix 2.8, and 2.9).

Packaged Option B    £5,514,939

### 3.3.7 Public Accounts

As the increase in walking and cycling trips is not expected to be significant, it is likely that the change in indirect tax revenue will be minimal. As such no calculation has been made for change in indirect tax revenue in public accounts.

The overall value of benefits of Packaged Option B, which includes the benefits derived from the highway dualling improvements of Option 1A, and the improved journey quality benefits and physical benefits associated with the active travel route, in 2010 prices is:

£21.6 million (based on 10 additional walking and cycling trips per day – low estimate);

£22.8 million (based on 40 additional walking and cycling trips per day – high estimate).

The capital cost and maintenance cost of Packaged Option B to the public accounts in 2010 prices is £5,687,649 (including £177,381 of additional maintenance costs compared to the Do Minimum scenario).

### 3.3.8 Value for Money Assessment

A Benefit to Cost Ratio (BCR) has been calculated for Packaged Option B. The categories recognised by government, and used in this assessment are the same as in Table 2.4 in Chapter 2, the Strategic Case. However, they are shown below for completeness.

**Table 2.4: BCR Value for Money**

BCR Value	Value for Money (VfM)
Less than 1	Poor VfM
Between 1.0 and 1.5	Low VfM
Between 1.5 and 2.0	Medium VfM
Between 2.0 and 4.0	High VfM
Greater than 4.0	Very high VfM

The resulting Benefit to Cost Ratio (BCR) for Packaged Option B with a high and low estimate of additional walking and cycling trips that will be generated is presented below:

**Packaged Option B** (low estimate of 10 additional walking & cycling trips per day) **3.8**

**Packaged Option B** (high estimate of 40 additional walking and cycling trips per day) **4.0**

It can be seen that Packaged Option B is forecast to result in a BCR as high as 4.0, which is classed as High. This is based on a high estimate of additional walking and cycling as a result of the option. However, with a low estimate of additional walking and cycling as a result of the scheme a BCR of 3.8 results, which is still classed as High.

**Packaged Option C** (dualling of the A4119, removal of the South Wales Fire & Rescue Centre headquarters roundabout [individual Option 1A] plus an adjacent Active Travel route [individual Option 11], and two Park & Ride/Share facilities [individual Options 2 and 15])

In this assessment, the Active Travel element has been based solely on a high level (40) of additional walking and cycling trips per day. It has also been assumed that each Park & Ride/Share facility (at the SSA 14.1 development site, and north of the Study Area) will have 100 spaces (200 in total) as well as providing bus services to Cardiff City Centre. The same service is likely to stop at both facilities, as such, only one cost is required for running the bus service at the Park & Ride. The following high level assumptions, which include a degree of

subjectivity, have also been used in estimating the potential benefits and costs associated with the Park and Ride/Share facilities:

- Current journey cost assumptions
- Distance from Park & Ride/Share site to Cardiff City Centre: 23.5 kilometres (based on the SSA14.1 development site facility);
- Existing travel time to Cardiff City Centre: 55 minutes (based on peak travel time to and from the SSA 14.1 development site);
- Average travel speed 25.6 kilometres per hour (based on peak hour travel time)
- Current Parking Charge in Cardiff City Centre: £7.50 per day (taken as average value from parking charges provided on the [www.justpark.com](http://www.justpark.com) website);
- Fuel consumption and vehicle type proportions have been taken from WebTAG databook 2018.

Potential journey costs with the Park & Ride/Share facilities:

- 15 minute peak hour frequency provided 07:00 to 10:00 and 16:00 to 19:00;
- 1 hour inter-peak period frequency provided 10:00 to 16:00;
- 42 kilometre return journey;
- 8 buses required resulting in 13 trips per peak period and 6 trips for the inter-peak period;
- £3.07 per mile operating cost (taken from DfT public service vehicle survey).

### 3.3.9 *Monetised Benefits*

In addition to the monetised benefits derived from Option A and Packaged Option B, an assessment has been made of the monetised benefit that the proposed Park & Ride/Share facilities could generate. They are expected to result in benefits in relation to personal car fuel and operational costs savings as well as parking charge savings in Cardiff City Centre. For this assessment it has been assumed that the Park & Ride will only take up 50% of the available car parking. This leaves residual spaces for Park & Share operations.

### 3.3.10 *Fuel and operational cost savings*

Personal vehicle fuel and operational cost savings have been estimated using the fuel and operating costs values provided in the WebTAG databook 2018.

The personal vehicle fuel and operational cost savings for the 42 kilometre return journey over the 60 year appraisal period and discounted to 2010 prices is £1,457,552.

### 3.3.11 *Parking Charge Savings*

The parking charge savings over the 60 year appraisal period and discounted to 2010 prices is: £3,095,023.

### 3.3.12 *Costs*

The additional costs associated with the two Park & Ride/Share facilities include capital expenditure as well as operational expenditure.

### 3.3.13 *Costs - Capital Expenditure*

The capital expenditure of the Packaged Option C, which includes Optimism Bias, land and risk costs and is presented in 2010 prices has been estimated at £6,131,486. The cost estimates for the individual elements of this package of options (based on 2018 prices) is contained in Section 2 of the Impacts Assessment Report (Appendix 2.8, 2.9, 2.10, and 2.11).

### 3.3.14 *Costs - Operational Expenditure*

Two operating models have been considered for running the buses associated with the Park & Ride:

1. Bus operations fully subsidised by the local authority;
2. Bus operations are covered by existing private bus operator services.

The cost of running the service in current costs is £664,102 for a year, based on DfT public service vehicle survey and the service parameters specified above. It has been assumed that this cost will increase by 1% year on year to account for increases in operating costs such as fuel prices which is currently 1% above inflation. The final cost over the 60 year economic analysis, (discounted to 2010 values), is £12,309,665.

This cost is included for the subsidised bus service option or excluded in the option where the service is provided by existing bus operations.

The costs associated with highway and car park maintenance has been estimated at £191,437. This has been discounted to 2010 prices and is based on typical costs for highway and car park remedial works such as planned surfacing and carriageway renewal. Costs are included in Appendix 2.10 and 2.11 in Section 2 of the Impacts Assessment Report.

### 3.3.15 *Public Accounts*

In the subsidised service, the local authority would be required to cover the £12,309,665 operating expenditure, but this would be offset by the recovery of £2,071,521 in ticket revenue. In the other scenario whereby existing services are utilised, these costs and income are attributed to the private sector.

Other costs to the Public Accounts are as per the previous options.

### 3.3.16 *Value for Money Assessment*

Two Benefit to Cost Ratios (BCRs) have been calculated for Packaged Option C. These reflect two scenarios, which are either with the bus services subsidised or unsubsidised. The categories recognised by government and used in this assessment are shown in Table 2.4.

The resulting BCRs for each Packaged Option C scenario are presented below:

<b>Packaged Option C</b> (subsidised bus service)	<b>1.5</b>
<b>Packaged Option C</b> (unsubsidised bus service)	<b>4.3</b>

It can be seen that with a subsidised bus service, Packaged Option C results in a BCR of 1.5, which is classed as Low. However, with an unsubsidised bus service, Packaged Option C results in a BCR of 4.3, which is classed as Very High. Clearly there will be a burden on Rhondda Cynon Taf CBC if a bus service is subsidised. If there was a way of getting existing services to cover the cost of operation, then a very high BCR can be achieved although this would be dependent on bus companies agreeing to this. Any re-routing of existing services would ultimately impact upon timings and undermine operations. It may be that there would need to be some negotiation with bus operators, and potentially a partially subsidised Park & Ride would be required. This would therefore result in a BCR within the 1.5 to 4.3 range.

Further information on the economic assessment of all the packaged options is contained in Appendix 2.19 in Section 2 of the Impacts Assessment Report.

### 3.4 Transport Case Appraisal of the Short-List of Packaged Options – Other Appraisal

#### 3.4.1 *Non-Monetised Benefits*

The non-monetised benefits of the packaged options (Economy [in part], Environment, and Social) are contained in a qualitative assessment in the Appraisal Summary Table (AST), which is Table 3.12. Selected economics information taken from Section 3.3 is also included. The appraisal work that has been undertaken on each of these three categories is described below.

#### 3.4.2 *Economy (part)*

As well as the quantitative Business Users & Reliability Impact appraisal from the economic assessment, the non-monetised impacts of the packaged options have been considered in the AST. In broad terms, all the packaged options are, in varying degrees, considered important in terms of the regeneration of the Ely Valley. In particular, the dualling of an additional section of the A4119 and the removal of a roundabout (Packaged Option A) will lead to reduced congestion and improved journey times, both of which will make the area more attractive to inward investment. The SSA 14.1 development site, which is accessed from Coedely Roundabout at the northern end of the dualling is well placed to be at the forefront of regeneration in the area.

Although there will also be benefits for regeneration from the provision of an additional Active Travel route, and Park & Ride/Share sites (Options B and C respectively), it is the increase in standards of the A4119 that is likely to be the main driver for this.

The improvement to dual carriageway standard of the A4119 to a point further north than at present, will have benefits that will be felt wider than just the Coedely area. The road will lead to improved journey times between the Rhondda Valleys and the M4, and vice versa. This will be beneficial in terms of both the economic prosperity of these parts of the South Wales Valleys as well as for the people that live there.

The appraisal of Packaged Options A, B, and C, against Regeneration and Wider Impacts have been taken as Moderately Beneficial (+ +). The appraisal of the Do Minimum option (D) against these has been taken as Neutral (0). These appraisal ratings have been taken forward to the AST in Table 3.12.

### 3.4.3 Environment

The appraisal of the packaged options has benefitted from additional environmental studies that have been undertaken since the Strategic Outline Case report was completed and therefore a direct comparison should not be made between the ratings for Option 1 in the Appraisal Summary Table of individual options (Table 3.1) and for Option A in the Appraisal Summary Table of Packaged Options (Table 3.12). The additional studies are referenced below from Section 2 of the Impacts Assessment Report.

- Ecology Appraisal (June 2018) - Appendix 2.20
- Environmental Business Case (May 2018) - Appendix 2.21
- Geotechnical Reports on Elements of Packaged Options (June 2018) - Appendix 2.22

The information contained in the first two reports, and to a lesser extent the third, has been summarised in Tables 3.6 to 3.8 (three tables, one for each Packaged Option, A, B, and C) below, which has informed the Environment section of the AST. It should be noted that the first two reports considered each individual option from the packaged options separately. Where appropriate, information has been combined to give appraisal that relates to each packaged option (one table for each) and this has been taken forward to the AST in Table 3.12.

**Table 3.6: Appraisal of Packaged Option A against Environment Criteria**

Impact	Implications	Appraisal
Noise	<b>Likely insignificant reduction in traffic noise.</b>	<b>0</b>
Air Quality	<b>Improved local air quality during peak periods.</b>	<b>+</b>
Greenhouse Gases	<b>Little or no overall change within the A4119 corridor.</b>	<b>0</b>
Landscape	Semi-natural broad-leaved woodland, broad-leaved plantation woodland, dense scrub, poor semi-improved grassland, hardstanding, footbridge over river. <b>Slight additional visual impact.</b>	-
Townscape	<b>No impact.</b>	<b>0</b>
Historic Landscape	<b>No historic buildings with 300 metres, generally no impact. Low no impact due to historic mining activities. Mining instability inconclusive.</b>	<b>0</b>
Biodiversity	Does not directly affect SSSIs (300 metres closest) Does not directly affect any SINCs (50 metres closest) but <b>Llantrisant Forest and Craig Melyn Woodland SINC will require protection.</b> Within 2 kilometres of site (5 kilometres for bats) – Bats, Dormouse, Badger, protected/priority bird species, reptiles, amphibians, invertebrates, small mammals, bluebell, five invasive species. <b>Potential for bat foraging, Protection of otters, Protection of dormice, Protection of newts, Protection of badgers, Protection of breeding birds, Protection of reptiles, Removal of invasive species, Specific lighting design, Maintaining and enhancement of habitat connectivity.</b>	-
Water Environment	Lies in immediate area of Ely River SINC - prime wildlife corridor with good water quality, otter, kingfisher, dipper, grey wagtail, brown trout, and salmon. Wooded banks with alder (a speciality of the banks of the Ely). <b>River will require protection from pollution.</b>	-

**Table 3.7: Appraisal of Packaged Option B against Environment Criteria**

Impact	Implications	Appraisal
Noise	<b>Likely insignificant reduction in traffic noise.</b>	<b>0</b>
Air Quality	<b>Improved local air quality during peak periods.</b>	<b>+</b>
Greenhouse Gases	<b>Little or no overall change within the A4119 corridor.</b>	<b>0</b>
Landscape	Semi-natural broad-leaved woodland, broad-leaved plantation woodland, dense scrub, poor semi-improved grassland, hardstanding, footbridge over river. <b>Possibly some visual impact from tree removal.</b>	-
Townscape	<b>No impact.</b>	<b>0</b>
Historic Landscape	<b>No historic buildings with 300 metres, generally no impact. Low no impact due to historic mining activities. Mining instability inconclusive.</b>	<b>0</b>
Biodiversity	Does not directly affect SSSIs (300 metres closest) Does not directly affect any SINCs (50 metres closest) but <b>Llantrisant Forest and Craig Melyn Woodland SINC will require protection.</b> Within 2 kilometres of site (5 kilometres for bats) – Bats, Dormouse, Badger, protected/priority bird species, reptiles, amphibians, invertebrates, small mammals, bluebell, five invasive species. <b>Potential for bat foraging, Protection of otters, Protection of dormice, Protection of newts, Protection of badgers, Protection of breeding birds, Protection of reptiles, Removal of invasive species, Specific lighting design, Maintaining and enhancement of habitat connectivity.</b>	-
Water Environment	Lies in immediate area of Ely River SINC - prime wildlife corridor with good water quality, otter, kingfisher, dipper, grey wagtail, brown trout, and salmon. Wooded banks with alder (a speciality of the banks of the Ely). <b>River will require protection from pollution.</b>	-

**Table 3.8: Appraisal of Packaged Option C against Environment Criteria**

Impact	Implications	Appraisal
Noise	<b>Likely insignificant reduction in traffic noise.</b>	<b>0</b>
Air Quality	<b>Improved local air quality during peak periods.</b>	<b>+</b>
Greenhouse Gases	<b>Little or no overall change within the A4119 corridor.</b>	<b>0</b>
Landscape	Semi-natural broad-leaved woodland, broad-leaved plantation woodland, dense scrub, poor semi-improved grassland, scattered scrub, hardstanding, footbridge over river, colliery spoil, ponds. <b>Minor impacts likely.</b>	-
Townscape	<b>No impact.</b>	<b>0</b>
Historic Landscape	<b>No historic buildings with 300 metres, generally no impact. Low no impact due to historic mining activities. Mining instability inconclusive.</b> The Park & Ride site to the north of the Study Area is adjacent to the Rhondda Registered Historic Landscape. <b>Adverse effect anticipated.</b>	-
Biodiversity	Does not directly affect SSSIs but Park & Ride site to the north of the Study Area is very close to Rhos Tonyrefail SSSI. <b>Little impact although protection required.</b> Does not directly affect any SINCs (50 metres closest) but <b>Llantrisant Forest and Craig Melyn Woodland SINC will require protection.</b> Within 2 kilometres of site (5 kilometres for bats) – Bats, Dormouse, Badger, protected/priority bird species, reptiles, amphibians, invertebrates, small mammals, bluebell, five invasive species. <b>Potential for bat foraging, Protection of otters, Protection of dormice, Protection of newts, Protection of badgers, Protection of breeding</b>	-

Impact	Implications	Appraisal
	<b>birds, Protection of reptiles, Removal of invasive species, Specific lighting design, Maintaining and enhancement of habitat connectivity.</b>	
Water Environment	Lies in immediate area of Ely River SINC - prime wildlife corridor with good water quality, otter, kingfisher, dipper, grey wagtail, brown trout, and salmon. Wooded banks with alder (a speciality of the banks of the Ely). <b>River will require protection from pollution. Northern Park &amp; Ride site does not affect river.</b>	-

Option D, Do Minimum will have no impact on the Environment and its appraisal will be neutral (0).

#### 3.4.4 Social

The information contained in Tables 3.8 to 3.10 (three tables, one for each Packaged Option A, B, and C) relates to the impacts of the packaged options on Society. Apart from information based on the economic appraisal (Affordability), no additional information has become available since the Stage 1 WeITAG, Strategic Outline Case was completed. However, a more comprehensive appraisal has been undertaken based on existing information and therefore a direct comparison should not be made between the ratings for Option 1 in the Appraisal Summary Table of individual options (Table 3.1) and for Option A in the Appraisal Summary Table of Packaged Options (Table 3.12).. The Social appraisal of the packaged options is shown in Tables 3.9 to 3.11 and ratings have been taken forward to the AST in Table 3.12.

**Table 3.9: Appraisal of Packaged Option A against Social Criteria**

Impact	Implications	Appraisal
Commuting and Other Users	Improvements to Coedely Roundabout and the upgrading of the single carriageway A4119 to full dual carriageway standard together with its extension south east with the removal of a roundabout will result in a reduction in congestion through smoother traffic flow and reduced journey times.	++
Reliability Impact on Commuting and Other Users	Reduced congestion will lead to more reliable journey times for commuters and other road users	++
Physical Activity	There will be no footways therefore pedestrians will not be able to use this road. Cyclists will have to stay on-road if they don't want to use the cycle route that follows the dismantled railway to the west. The situation will be slightly worse as there is a footway on the western side of the existing single carriageway road.	-
Journey Quality	The road corridor will be opened out and together with the removal of a roundabout will slightly improve journey quality.	+
Accidents	As accidents often occur at junctions, the removal of a roundabout and the improvement of Coedely Roundabout could lead to a reduction in accidents. The lower speed limit could also help although actual speeds may be higher given that the road standard will be higher.	+
Security	The higher standard given by a dual carriageway over a single carriageway could lead to a very slight improvement in security (perceived).	+
Access to Services	A higher standard of A4119 extending further north than at present will slightly improve access to services.	++
Affordability	Likely to be moderately affordable.	++
Severance	Generally no impact.	0
Option Values	No impact.	0

**Table 3.10: Appraisal of Packaged Option B against Social Criteria**

Impact	Implications	Appraisal
Commuting and Other Users	Improvements to Coedely Roundabout and the upgrading of the single carriageway A4119 to full dual carriageway standard together with its extension south east with the removal of a roundabout will result in a reduction in congestion through smoother traffic flow and reduced journey times. Having an adjacent Active Travel route will help promote Active Travel, particularly as this will be able to link with existing provision that runs parallel as well as to the north and south.	++
Reliability Impact on Commuting and Other Users	Reduced congestion will lead to more reliable journey times for commuters and other road users	++
Physical Activity	The A4119 dualling will have an adjacent Active Travel route, which will help promote physical activity. Linking this to existing facilities will be beneficial.	++
Journey Quality	The road corridor will be opened out and together with the removal of a roundabout will slightly improve journey quality. An Active Travel route will give an additional north/south route choice, which will added to the journey quality.	+
Accidents	As accidents often occur at junctions, the removal of a roundabout and the improvement of Coedely Roundabout could lead to a reduction in accidents. The shared use facilities will reduce the chances of cycle-related accidents, which is important for cyclists although there will be no change for pedestrians. The lower speed limit could also help although actual speeds may be higher given that the road standard will be higher.	+
Security	The higher standard given by a dual carriageway over a single carriageway could lead to a very slight improvement in security (perceived). Having an adjacent Active Travel route will benefit cyclists compared to the existing secluded route to the west.	+
Access to Services	A higher standard of A4119 extending further north than at present will slightly improve access to services. This will slightly benefit pedestrians and cyclists as well.	++
Affordability	Likely to be moderately affordable.	++
Severance	Generally no impact.	0
Option Values	No impact.	0

**Table 3.11: Appraisal of Packaged Option C against Social Criteria**

Impact	Implications	Appraisal
Commuting and Other Users	Improvements to Coedely Roundabout and the upgrading of the single carriageway A4119 to full dual carriageway standard together with its extension south east with the removal of a roundabout will result in a reduction in congestion through smoother traffic flow and reduced journey times. Having an adjacent Active Travel route will help promote Active Travel, particularly as this will be able to link with existing provision that runs parallel as well as to the north and south. Greater travel choice with Park & Ride/Share will benefit commuters.	++
Reliability Impact on Commuting and Other Users	Reduced congestion will lead to more reliable journey times for commuters and other road users. Park & Ride/Share will not directly benefit reliability as there is no additional infrastructure planned such as bus lanes, etc.	++
Physical Activity	The A4119 dualling will have an adjacent Active Travel route, which will help promote physical activity. Linking this to existing facilities will be beneficial.	++

Impact	Implications	Appraisal
	No additional benefit from Park & Ride/Share sites.	
Journey Quality	The road corridor will be opened out and together with the removal of a roundabout will slightly improve journey quality. An Active Travel route will give an additional north/south route choice, which will added to the journey quality. No additional benefit from Park & Ride/Share sites.	+
Accidents	As accidents often occur at junctions, the removal of a roundabout and the improvement of Coedely Roundabout could lead to a reduction in accidents. The shared use facilities will reduce the chances of cycle-related accidents, which is important for cyclists although there will be no change for pedestrians. The lower speed limit could also help although actual speeds may be higher given that the road standard will be higher. No additional benefit from Park & Ride/Share sites.	+
Security	The higher standard given by a dual carriageway over a single carriageway could lead to a very slight improvement in security (perceived). Having an adjacent Active Travel route will benefit cyclists compared to the existing secluded route to the west. No additional benefit from Park & Ride/Share sites.	+
Access to Services	A higher standard of A4119 extending further north than at present will slightly improve access to services. This will slightly benefit pedestrians and cyclists as well. No additional benefit from Park & Ride/Share sites.	++
Affordability	Likely to be moderately affordable (use of an unsubsidised bus service).	++
	Likely to be moderately unaffordable (use of a subsidised bus service)	--
Severance	Generally no impact.	0
Option Values	Slight benefit due to public transport additions.	+

Option D, Do Minimum will have no impact on the Social criteria and its appraisal will be neutral (0).

### 3.4.5 Appraisal Summary Table

All the appraisal ratings from the above sections and tables for Packaged Options A, B, and C plus D, Do Minimum, as well as selective information from the economic appraisal, have been included in Table 3.12, the Appraisal Summary Table (AST). The information contained in Table 3.12 is also shown in Appendix 2.16 (Worksheet 17) in Section 2 of the Impacts Assessment Report.

**Table 3.12: Appraisal of Packaged Options (Appraisal Summary Table)**

Criteria	Qualitative/ Quantitative Assessment			
	Packaged Option A	Packaged Option B	Packaged Option C	Option D (Do Min.)
	• Option 1A	• Option 1A • Option 11	• Option 1A • Option 11 • Option 2 • Option 15	• Option 22
<b>Economy</b>				
Business Users & Reliability Impact #	£8.6 million	£8.6 million	£8.6 m (sub.) £10.7 m (unsub.)	0
Regeneration	++	++	++	0
Wider Impacts	++	++	++	0
<b>Environment</b>				
Noise	0	0	0	0
Air Quality	+	+	+	0
Greenhouse Gases	0	0	0	0

Criteria	Qualitative/ Quantitative Assessment			
	Packaged Option A	Packaged Option B	Packaged Option C	Option D (Do Min.)
	• Option 1A	• Option 1A • Option 11	• Option 1A • Option 11 • Option 2 • Option 15	• Option 22
Landscape	-	-	-	0
Townscape	0	0	0	0
Historic Landscape	0	0	-	0
Biodiversity	-	-	-	0
Water Environment	-	-	-	0
<b>Social</b>				
Commuting and Other Users	++	++	++	0
Reliability Impact on Commuting and Other Users	++	++	++	0
Physical Activity	+	++	++	0
Journey Quality	+	+	+	0
Accidents	+	+	+	0
Security	+	+	+	0
Access to Services	++	++	++	0
Affordability #	++	++	-- (subsidised)	0
			++ (unsubsidised)	
Severance	0	0	0	0
Option Values	0	0	+	0
<b>Public Accounts</b>				
Cost to Broad Transport Budget #	-£5.4 million	-£5.7 million	-£16.6 million (subsidised)	0
			-£6.3 million (unsubsidised)	
Indirect Tax Revenues #	-£0.4 million	-£0.4 million	-£0.4 million	0

**Key**

<b>Large positive</b> (+++)	<b>Moderate positive</b> (++)	<b>Slight positive</b> (+)	<b>Neutral</b> (0)
<b>Slight negative</b> (-)	<b>Moderate negative</b> (--)	<b>Large negative</b> (---)	

# Scores are either taken directly from the economics appraisal spreadsheets or are based on information that they contain, which can be found in Appendix 2.19, Section 2 of the Impacts Assessment Report. Costs are in 2010 prices.

Packaged Option A performs well against the Economy, Social, and Public Accounts criteria although not so well against the Environment criteria. However, there are improvements to be seen when Option A is combined with other options although this is only in respect of Option 11, Active Travel Routes as this helps to better meet the Social criteria when it is included in Packaged Option B. The main difference when the Park & Ride/Share sites (Options 2 and 15) are added as part of Packaged Option C is the impact on an historic site in relation to Option 15.

The difference in the output from the economic appraisal for Option C reflects the scenarios of subsidised and unsubsidised Park & Ride services.

Do Minimum (Option D), does not change as it remains standalone, and its performance against the Economy, Environment, Social, and Public Accounts criteria remains the same as in previous appraisal, which is neutral.

Even though the improvements are small, it is clear that in relation to the Economy, Environment, Social, and Public Accounts criteria in the Appraisal Summary Table, there are benefits in packaging options together. This favours Packaged Options B and C although in terms of Public Accounts, Option C performs poorly if the Park & Ride element is subsidised.

To aid the choice of the Preferred Option to take forward to WeITAG Stage 3: Full Business Case, the appraisal of the packaged options against the criteria of Economy, Environment, and Social, has been summarised in Table 3.13 below. This has been carried forward to Table 7.1 in Chapter 7. Public Accounts have been excluded from the table as the output is not in a score format like the others in the AST.

**Table 3.13: Summary Table of Packaged Options appraised against Economy, Environment, Social, and Public Accounts (Appraisal Summary Table)**

Packaged Option Reference	Option (Long list option number)	Economy	Environment	Social
<b>A</b>	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> </ul>	++	0	+
<b>B</b>	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> <li>Adjacent Active Travel route (Option 11)</li> </ul>	++	0	++
<b>C</b>	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> <li>Adjacent Active Travel route (Option 11)</li> <li>Park &amp; Ride/Park &amp; Share facility within SSA 14.1 development site (Option 2)</li> <li>Park &amp; Ride expansion north of the study area (Option 15)</li> </ul>	++	-	-- subs
				++ unsubs
<b>D (Do Min.)</b>	<ul style="list-style-type: none"> <li>Do Minimum (Option 22)</li> </ul>	0	0	0

**Key**

Large positive (+++)	Moderate positive (++)	Slight positive (+)	Neutral (0)
Slight negative (-)	Moderate negative (--)	Large negative (---)	

### 3.4.6 Tackling Identified Problems

Table 3.14 includes a brief description as to how the Packaged Options A, B, and C, plus D (Do Minimum) might tackle the identified problems collectively rather than individually as was the case in the first part of the Transport Case (summary of the Strategic Outline Case). It also lists any other relevant issues that may have a bearing on the viability of the packaged options.

The information contained in Table 3.14 is also shown in Appendix 2.17 (Worksheet 18) in Section 2 of the Impacts Assessment Report.

**Table 3.14: How the Packaged Options will Tackle the Identified Problems, and Other Relevant Issues**

Packaged Option Reference	Option (Long list option number)	How the Packaged Option will Tackle the Identified Problems	Other Relevant Issues	Appraisal
<b>A</b>	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> </ul>	This option will widen the existing A4119 to a dual carriageway standard, which will require alterations to Coedely Roundabout. It will involve the removal of the South Wales Fire & Rescue Centre headquarters roundabout so that the option can link into the existing dual carriageway. The dualling will increase link capacity and the removal of a roundabout will reduce traffic delays. This will benefit existing traffic flow as well as that generated by the SSA 14.1 development in the future. There will be additional traffic flow on Sterling Drive due to the relocation of the South Wales Fire & Rescue Centre headquarters access.	It is considered that the lack of a dual carriageway all the way north to Coedely roundabout is reducing the attractiveness of the SSA 14.1 to developers. In addition, the frequency of roundabouts does not help traffic flow.	+++
<b>B</b>	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> <li>Adjacent Active Travel route (Option 11)</li> </ul>	As well as the benefits given by the dualling option (above), an Active Travel route in this part of the Ely Valley, will give additional travel choice. It will link into existing facilities and eventually link to the completion of the Llantrisant to Tonyrefail Community Route.	In addition to the above, there is already an Active Travel Route that follows a former railway to the immediate west of the A4119. The Active Travel route proposed as Option 11 will be higher profile.	+++
<b>C</b>	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> <li>Adjacent Active Travel route (Option 11)</li> <li>Park &amp; Ride/Park &amp; Share facility within SSA 14.1 development site (Option 2)</li> <li>Park &amp; Ride expansion north of the study area (Option 15)</li> </ul>	As well as the benefits given by the dualling option (above), and the Active Travel route option, the provision of Park & Ride/Share facilities will give further transport choice and will lead to a reduction in traffic flow on the A4119, and the benefits that this will bring. Of the two sites proposed, it is likely that the one within the SSA 14.1 site has the potential to offer greater benefits due to its location. The introduction of additional or rerouted bus services associated with the Park & Ride/Share sites will ultimately benefit local public transport as it will result in passenger increases and will help safeguard services.	In addition to the above, the proposed Park & Ride/Share facility within the SSA 14.1 site is unlikely to impact upon its ability to be fully developed for business and general industry (B1 and B2 uses). The site to the north of the Study Area will have to be acquired.	+++
<b>D (Do Minimum)</b>	<ul style="list-style-type: none"> <li>Do Minimum (Option 22)</li> </ul>	Other than ensuring that the A4119 continues to be fit for purpose in maintenance terms, this option will not change the way that the A4119 operates. With no improvements, the situation will deteriorate.	Regular maintenance only.	-

**Key**

Large positive (+++)	Moderate positive (++)	Slight positive (+)	Neutral (0)	Slight negative (-)	Moderate negative (--)	Large negative (---)
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In terms of their ability to tackle the identified problems on the A4119 in the Coedely area, Packaged Option A, which removes a source of delays (a roundabout), together with extending the existing dual carriageway all the way north to Coedely will be very beneficial in this respect. The linking of a dual carriageway into Coedely roundabout and the availability of a dual carriageway A4119 all the way south to the M4 will also be beneficial to the SSA 14.1 development site. It may well be the catalyst required to attract new interest in the site, which has remained in its present undeveloped state for many years.

The addition of an Active Travel route along the A4119 corridor to Packaged Option A (to give Packaged Option B), will be important not just for general north/south travel to which it will provide an additional route choice in the area. It will also be important to the SSA 14.1 site as Active Travel can be promoted as part of its marketing given that it lies within walking and cycling distance of a number of local communities, some of which are already served by Active Travel routes and others that are proposed.

The inclusion of Park & Ride/Share proposals to Packaged Option B (to give Packaged Option C) will offer a high profile alternative to single occupancy car use through either the use of buses or car sharing to complete journeys. This will, in turn give greater travel choice and has the potential to reduce traffic flows on the A4119 to the south. An increase in passenger numbers will help safeguard local bus services.

Do Minimum (Option D), essentially maintains the status quo and does nothing to address the identified problems on the A4119.

### 3.5 Summary of the Transport Case

The Transport Case has considered the short-list of packaged options in terms of their economic performance, their impact on the environment and society as well as their ability to tackle the identified problems.

In terms of economy, the best performing packaged option is Option C with a Benefit to Cost Ratio (BCR) of 4.3 (Very High). However, this is achieved only if the public transport element is subsidised, which is likely to be a burden on Rhondda Cynon Taf CBC. Without being subsidised, Option C only achieves a BCR of 1.5, which is Low.

There is little to choose, in economic terms, between Packaged Options A and B. The addition of an Active Travel route to the A4119 dualling (Option B) increases the BCR from 3.8 to 4.0, which are both High. The 3.9 value is based on a high estimate of additional Active Travel trips. If a low estimate of additional trips is taken, the BCR reduces to 3.8, although this is still High.

In terms of the impact, in qualitative terms, on the Economy criteria, all the packaged options are likely to benefit the regeneration of the Coedely area as well as providing wider benefits.

In terms of the Environment criteria of the Packaged Options A, B, and C, all will be broadly similar and in general their impact will be neutral. However, most could have slight benefits in terms of air quality through a reduction in congestion due to the proposed dual carriageway standard and the removal of a delay-inducing roundabout. This features in all three packaged options. All three options will have a slight impact on Biodiversity and the Water Environment although it is considered that with protection, this will not result in any long-term issues.

There will generally be slight to moderate benefits to Society with Packaged Options A, B, and C, particularly with regards to commuting through a reduction in congestion giving improved journey time reliability and better access to services. Although physical activity is not associated with Packaged Option A, the inclusion of Active Travel proposals with Packaged Option B will be a beneficial addition. There will be some benefits with the addition of two Park & Ride/Share options (Option C) although these will not improve on the overall appraisal rating of Option B.

Against all the aspects of the Economy, Environment and Society criteria that have been considered, the Do Minimum option (D) will be neutral.

From the appraisal work that has been undertaken in this chapter, it is clear that there is a strong Transport Case for a transport intervention in the A4119 corridor in the Coedely area. The most appropriate way to do this is through the combining of individual options into packages. Even though there are potentially large benefits to be gained from including Park & Ride/Share facilities to the A4119 dualling and Active Travel route (Packaged Option C), they introduce a considerable amount of uncertainty in terms of economics. Even though Packaged Option B at best, offers little economic benefit over Packaged Option A, it provides improved facilities that will address the main traffic problems within the A4119 corridor as well as giving greater Active Travel choice.

## 4. The Financial Case

### 4.1 Introduction

The Financial Case is intended to state the affordability of the proposal, its funding arrangements and technical accounting issues (value for money is scrutinised in the Transport Case). Although the Strategic Outline Case contained only basic financial information, this Outline Business Case has benefited from further design work, which has enabled costs to be assigned to the packaged short-list of options.

The Financial Case reproduces relevant sections of the Strategic Outline Case as well as adding specific information that has been obtained as part of the Outline Business Case.

### 4.2 Capital Costs

Preliminary cost estimates have been prepared for the individual proposals that make up the packaged options. These are included as Appendix 2.8 to 2.12 in Section 2 of the Outline Business Case section of the Impacts Assessment Report.

The costs in Table 4.1 are capital costs for the packaged options and have been derived from adding together the costs of the individual proposals. They are in 2018 prices and include 44% optimism bias in accordance with DfT Transport Appraisal Guidance (WebTAG). Costs exclude additional client project management costs, client site supervision, legal costs, land costs, detailed design costs, and third party costs. It should be noted that as a result of adding together the costs of the individual proposals, some overlap exists. The costs will therefore be slightly conservative.

**Table 4.1: Capital Costs of Packaged Options in 2018 Prices**

Packaged Option Reference	Option (Long list option number)	Capital Costs
A	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> </ul>	£10,676,368
B	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> <li>Adjacent Active Travel route (Option 11)</li> </ul>	£11,298,630
C	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> <li>Adjacent Active Travel route (Option 11)</li> <li>Park &amp; Ride/Park &amp; Share facility within SSA 14.1 development site (Option 2)</li> <li>Park &amp; Ride expansion north of the study area (Option 15)</li> </ul>	£12,546,362
D (Do Minimum)	<ul style="list-style-type: none"> <li>Do Minimum (Option 22)</li> </ul>	N/A

### 4.3 Ongoing Operating Costs

In addition to the capital costs associated with the three packaged options, plus the Do Minimum option, annual maintenance costs have been apportioned over the 60 year economic assessment period to account for general maintenance and surfacing or renewals as required. The breakdown of maintenance costs in current values is shown in Table 4.2.

**Table 4.2: Maintenance Costs of Packaged Options in 2018 Prices**

Packaged Option Reference	Option (long list option number)	Maintenance Costs
A	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> </ul>	£1,812,067
B	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> <li>Adjacent Active Travel route (Option 11)</li> </ul>	£1,831,667
C	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> <li>Adjacent Active Travel route (Option 11)</li> <li>Park &amp; Ride/Park &amp; Share facility within SSA 14.1 development site (Option 2)</li> <li>Park &amp; Ride expansion north of the study area (Option 15)</li> </ul>	£1,870,867
D (Do Minimum)	<ul style="list-style-type: none"> <li>Do Minimum (Option 22)</li> </ul>	£2,005,500

As a highway scheme (dualling of the A4119 plus roundabout removal) is common to all three packaged options (excluding Do Minimum), there will be no new associated revenue and will only represent an ongoing additional cost to Rhondda Cynon Taf CBC. Packaged Option B contains an Active Travel Route, which again will attract no revenue. Only the Park & Ride/Share element of Packaged Option C could generate revenue although at this point in time, it is not known who would run these facilities.

## 4.4 Total Scheme Costs

The costs in Table 4.3 are total scheme costs in 2018 prices based on a combination of the costs in Tables 4.1 and 4.2.

**Table 4.3: Total Scheme Costs of Packaged Options in 2018 Prices**

Packaged Option Reference	Option (long list option number)	Total Scheme Costs
A	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> </ul>	£12,488,435
B	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> <li>Adjacent Active Travel route (Option 11)</li> </ul>	£13,130,297
C	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> <li>Adjacent Active Travel route (Option 11)</li> <li>Park &amp; Ride/Park &amp; Share facility within SSA 14.1 development site (Option 2)</li> <li>Park &amp; Ride expansion north of the study area (Option 15)</li> </ul>	£14,417,229
D (Do Minimum)	<ul style="list-style-type: none"> <li>Do Minimum (Option 22)</li> </ul>	£2,005,500

The costs for Packaged Option C do not include the substantial costs associated with running a bus service, which would cost £56,439,264 over 60 years (in 2018 prices, undiscounted for inflation), but recover £10,765,696 in ticket sales revenue (in 2018 prices, undiscounted for inflation). Therefore, the overall cost for the local authority to run the Park & Ride services would be £45,673,569 over 60 years.

## 4.5 Summary of the Financial Case

The Do Minimum cost is £2,005,500 which is the cost to maintain the current highway. The scheme costs of the options for Coedely range from £12,488,435 for Packaged Option A, £12,992,497 for Packaged Option B and £14,417,229 for Packaged Option C.

The costs associated with running the Park & Ride bus services are substantial, and would result in a significant financial outlay over 60 years. Thus, in order to reduce this, the authority should seek to discuss with private sector bus operators how this financial cost can be minimised through integrating existing services where possible.

Aside from potential bus revenue in Packaged Option C, all options will generate no other new revenue streams and will only represent an ongoing additional cost to RCT CBC. However, there may be some cost savings as a result of less traffic on other parts of the highway network therefore reducing their maintenance need.

Funding sources will need to be identified to secure the finances required to cover these costs. However, it is assumed that maintenance costs will be covered by RCT CBC's annual budget for such works.

## 5. The Commercial Case

### 5.1 Procurement Method

The means of procurement of a transport intervention within the A4119 corridor in Coedely is unclear at the present time. Rhondda Cynon Taf CBC is currently considering different options. Two options that could be employed are as follows:

- Design and Build;
- Completion of detailed design followed by the appointment of a contractor to construct the proposals.
- At the current time Redstart is preparing design and other information as part of the planning process.
- Further information about the procurement method will be contained in the Full Business Case, WeITAG Stage 3.

### 5.2 Contract

As with the procurement method, it is unclear at the present time as to the type of contract that will be used for a transport intervention within the A4119 corridor in Coedely. However, it is possible that one of the NEC4 Suite of Contracts could be employed. This type of contract builds on the success of the NEC3 Contracts with the proven and unique processes for collaboration, fair dealing, and good project management that is inherent in the NEC philosophy embedded in this evolved edition.

Further information about the type of contract that will be used will be contained in the Full Business Case, WeITAG Stage 3.

### 5.3 Contract Length

The length of contract for a transport intervention within the A4119 corridor in Coedely is not known at the present time. Further information will be contained in the Full Business Case, WeITAG Stage 3.

### 5.4 Payment Mechanism

The payment mechanism for a transport intervention within the A4119 corridor in Coedely is not known at the present time. However, it could be based on payments being made to the contractor following signed certificates provided by the PM under NEC showing the value of work completed to date. Further information will be contained in the Full Business Case, WeITAG Stage 3.

### 5.5 Pricing Framework

The Pricing Framework for a transport intervention within the A4119 corridor in Coedely is not known at the present time. Further information will be contained in the Full Business Case, WeITAG Stage 3.

## 5.6 Key Contractual Clauses

No information regarding Key Contractual Clauses is known at the present time. Further information will be contained in the Full Business Case, WeITAG Stage 3.

## 5.7 Risk Allocation and Transfer

Risks and associated cost items will be specifically assessed depending on who is best placed to manage them. Risk is discussed in more detail in Chapter 6: The Management Case.

## 5.8 Human Resources and TUPE

It is unlikely that there will be any HR (Human Resources) impacts or TUPE (Transfer of Undertakings [Protection of Employment] Regulations) issues related to the implementation of a transport intervention within the A4119 corridor in Coedely. If appropriate, further information will be contained in the Full Business Case, WeITAG Stage 3.

## 5.9 Road Operation

There are no proposals to charge for the use of any of the highways elements (including Active Travel routes) of a transport intervention within the A4119 corridor in Coedely. Nor will any income be generated. The highways elements will be within the ownership of Rhondda Cynon Taf CBC.

Option C contains proposals for Park & Ride/Share at two different sites either at Coedely or north of the Study Area. If these are included in the Preferred Option, there may be an opportunity for the Park & Ride element to generate income although there are currently no plans as to how such a facility could be managed.

Private sector involvement in the proposals will be limited to the contractor and any sub-contractors employed to undertake the Design and Build contract, or just its construction.

Further information will be contained in the Full Business Case, WeITAG Stage 3.

## 5.10 Summary of the Commercial Case

The planning process is underway for elements of a transport intervention within the A4119 corridor in Coedely and further details are contained in Chapter 6, the Management Case. Although there are likely to be two methods of procurement that could be used, no decision has been made as to the one that is preferred. However, the type of contract is likely to be NEC4. No firm information is currently available as to the contract length, payment mechanism, pricing framework, and key contractual clauses.

- Risk is discussed in Chapter 6: The Management Case.
- It is unlikely that there will be any Human Resources impacts or TUPE issues associated with the proposals.
- There are no proposals to charge for the use of A4119 improvements or generate income from it.
- Further information on all of the above will be contained in the Full Business Case, WeITAG Stage 3.

## 6. The Management Case

### 6.1 Introduction

The Management Case assesses whether a proposal is deliverable. It considers the project planning, governance structure, risk management, communications and stakeholder management, and benefits realisation and assurance. At the Strategic Outline Case (WelTAG Stage 1), the Management Case was of a very preliminary nature although it considered the key issues that have affect the selection of options that are considered in greater detail in this Outline Business Case (WelTAG Stage 2).

There should be a clear and agreed understanding of what needs to be done, why, when, and how, with measures put in place to identify and manage risks. The Management Case sets out a plan, in broad terms, to ensure that the benefits set out in the Transport Case are able to be realised and, where possible, will include measures to assess and evaluate this.

### 6.2 Scheme Development and Legal Powers

#### 6.2.1 *Review Group and Independent Reviewer*

A Review Group was set up as part of the Strategic Outline Case stage of the WelTAG process (Stage 1). It comprises of officers of Rhondda Cynon Taf CBC and the role of the Review Group is to review the contents of the stage reports (1, 2, and 3) and decide on the actions to be taken prior to the commencement of the subsequent stage. At WelTAG Stage 1, the Strategic Outline Case, the Review Group considered the recommendations made by Redstart and agreed the packaged options that would be appraised in greater detail in this Stage 2 report. This can be found in Chapter 1: Introduction. The members of the Review Group, which should, if possible remain the same throughout the development and construction stages of the proposals are as follows:

1. Jessica Lonergan
2. Adrian Morgan
3. Rebecca Smith
4. Tim Phillips
5. Souren Zeinali
6. Charlie Nelson
7. Dave Afia
8. Andrew Stone

In relation to the decisions made by the Review Group for the preferred option, and the reasons behind these, they are reported in Chapter 7: Recommendations for WelTAG Stage 3, Full Business Case.

An Independent Reviewer should be appointed for the overall project. The person should not be a member of the project team although they should possess the experience necessary to understand the issues concerning the project.

### 6.2.2 Current Situation in Scheme Development

A transport intervention within the A4119 corridor in Coedely is still at preliminary design stage and no overall preferred option exists. However, of the packaged options that have been considered in this Stage 2 report, dualling of the A4119 between Coedely Roundabout and south of the South Wales Fire & Rescue Service headquarters roundabout (including its removal), is common. These are Options A, B, and C.

Redstart is currently preparing design and other information as part of the planning process for the dualling scheme only (Option A) with the target date being October 2018. However, Rhondda Cynon Taf CBC has advised that a Planning Application will not be required as the scheme is considered to be Permitted Development. An indicative high level programme for the scheme is shown in Table 6.1 although it should be noted that this may be subject to change.

**Table 6.1: Indicative Programme**

Activity	Date
Completion of preliminary design to a stage comparable to planning. This will include public exhibitions and consultation with stakeholders.	June 2019
Start Compulsory Purchase Order (CPO) process.	End of October 2019
Completion of detailed design, CPO process ongoing.	Not known at present time
Preparation of Tenders. CPO process ongoing.	Not known at present time
Appoint Contractor.	2020
Start of construction.	2020

Although the above indicative programme is for the A4119 dualling scheme (Option A), this does not preclude the inclusion of the additional elements included in Packaged Options B or C. This Stage 2 WeITAG recommends a preferred option.

It has been agreed with RCT that supporting information for the current planning process will include the following, some of which have informed the appraisal of the packaged options in the Transport Case.

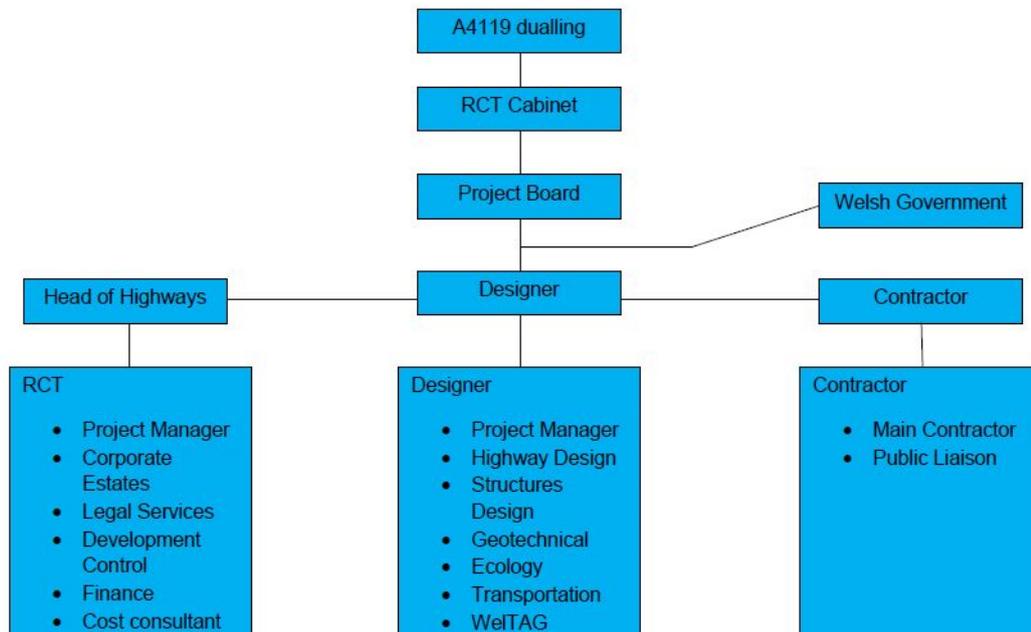
- Geotechnical PSSR (Preliminary Sources Study Report);
- Ecology Report;
- Environmental Report; and
- EIA Screening Report;

## 6.3 Governance

### 6.3.1 Governance Structure

A governance structure for the project management of the Coedely scheme has yet to be determined. However, a generic structure is shown in Figure 6.1 below. Table 6.2, which follows Figure 6.1 gives an indication of governance roles and responsibilities although as with the governance structure, these have yet to be agreed. No names have been shown.

**Figure 6.1: Governance Chart**



**Table 6.2: Governance Roles and Responsibilities**

Role	Participants	Key Areas of Responsibility	Progress Review
Tier 1 – Major Projects Board	Welsh Government RCTCBC Cabinet TBA	<ul style="list-style-type: none"> <li>High Level Strategy</li> <li>Strategic decision making</li> <li>Setting forward work programme</li> <li>Monitoring progress against programme</li> <li>Review funding streams</li> </ul>	<ul style="list-style-type: none"> <li>Review of key issues and decisions as raised and reported by Project Board</li> <li>Six-weekly meetings at which programme reports are reviewed and relevant actions agreed</li> </ul>
Tier 2 – Technical Team Meeting	TBA	<ul style="list-style-type: none"> <li>Programme management</li> <li>Meeting project objectives</li> <li>Delivery to time and budget</li> <li>Key link between the Major Projects Board and Project Delivery Team</li> <li>Main point of contact for external stakeholders and partners</li> </ul>	<ul style="list-style-type: none"> <li>Monthly progress meetings</li> <li>Preparation and submission of progress reports to the Project Board</li> <li>Senior Responsible Officer attendance at Project Board meetings</li> </ul>
Tier 3 – Project Delivery Team & Issue Specific meetings	Contractor	<ul style="list-style-type: none"> <li>Day to day project delivery across the areas of design, construction</li> </ul>	<ul style="list-style-type: none"> <li>Monthly progress meetings</li> <li>Preparation and submission of monthly progress reports to the Technical Team</li> </ul>

### 6.3.2 *Programme Management and Reporting*

The project is likely to be developed and managed using PRINCE2 principles, by Rhondda Cynon Taf CBC officers, supported by technical consultants REDSTART (a joint venture company between Capita and RCT CBC, Merthyr Tydfil CBC, and Bridgend CBC), and Chandlers KBS.

No construction programme exists at the present time and no information is currently available about the construction stage.

### 6.3.3 *Communication and Stakeholder Management (Governance)*

Rhondda Cynon Taf CBC will take the lead on the communication and stakeholder management aspects of the preferred option (when it is known), during subsequent design stages. A communications group will be formed, which is likely to meet on a monthly basis. At the construction stage, it is likely that the contractor will employ a full-time Communications Manager who will undertake communication and stakeholder management during the construction stage of the project.

### 6.3.4 *Risk Management Strategy*

During the development stages of the scheme, Rhondda Cynon Taf and the Redstart design team will be responsible for producing and managing the risk strategy. A Quantified Costed Risk Assessment will be produced and reviewed on a regular basis. During the detailed design and construction stages, it will be the responsibility of the contractor and the NEC PM to manage the risk management strategy.

### 6.3.5 *Benefits Realisation and Monitoring and Evaluation Plan*

A Benefits Realisation and Monitoring and Evaluation Plan will be produced at the appropriate time in scheme development. The role of this document will be to provide a list of benefits and an action plan for how they will be realised, along with a monitoring and evaluation plan for the scheme.

## 6.4 *Communication and Stakeholder Management*

### 6.4.1 *Consultation*

To date, the following consultation processes have taken place:

- Stakeholders' Workshop (RCTCBC/Redstart) at the start of the WelTAG process (September 2017). This is reported in Section 1 of the Impacts Assessment Report (Appendix 1.2).
- Meeting between RCTCBC officers and representatives of the South Wales Fire & Rescue Service headquarters regarding the proposal to remove the A4119 roundabout at the access and provide an alternative via Sterling Drive.

Consultation will be undertaken as part of the planning process although no details are currently available about this. Although there is likely to be further consultation following this, there are currently no plans for this.

## 6.4.2 Project Plan

A programme exists to take the project through to the end of WelTAG Stage 2 (the current stage) and the planning stage. There is currently no programme in place to take the project through to WelTAG Stage 3, the Full Business Case following the selection of a preferred option at the end of Stage 2.

## 6.4.3 Risk Register

A quantified risk register will be produced when the preferred option for a transport intervention within the A4119 corridor at Coedely is known and the detailed design process commences. However, below is a list of possible risks to the project although it should not be considered exhaustive.

- Commercial/Political Risks:
  - Funding withdrawn (for whatever reasons);
  - Change in political governance – project may not be prioritised;
  - Objections from South Wales Fire & Rescue Service;
  - Public Inquiry.
- Design Stage Risks:
  - Statutory Undertakers – costs associated with service diversions
  - Unexpected site conditions (for instance, mine shafts, etc.);
  - Land acquisition;
- Construction Risks:
  - Contaminated land;
  - Spread of invasive species;
  - Haul routes, construction traffic;
  - Ground conditions;
- Statutory Undertakers – differences in actual location compared to records.
  - Resident complaints;
  - Pollution of Afon Ely;
  - Inclement weather;
  - Contractor terminating contract/appointment of new contractor to complete the works.

## 6.5 Equality Impact Assessment

An Equality Impact Assessment relating to the preferred option for a transport intervention within the A4119 corridor at Coedely will be undertaken by Rhondda Cynon Taf CBC as part of the Stage 3 WelTAG, Full Business Case process. It is likely that the overall assessment will determine that the impact of the scheme on all protected character groups will be low.

## 6.6 Deliverability

An assessment of the deliverability of the long list of options was included in the Strategic Outline Case (WelTAG Stage 1). This was against the criteria of Feasibility, Acceptability, Timescale, and Risks. The assessment has been reproduced in part and concentrates on the individual options that make up the packaged options considered in this Outline Business Case (WelTAG Stage 2). This is shown in Table 6.3.

The information contained in Table 6.3 has been taken from Appendix 1.15 (Worksheet 13) in Section 1 of the Impacts Assessment Report.

**Table 6.3: Appraisal of Individual Options against Deliverability**

Option Ref.	Option	Feasibility	Affordability	Acceptability	Timescale	Risks	Overall Summary
1	Dual single carriageway A4119 (Stink Pot Hill)	++	++	++	+	+	++
2	Park & Ride/Park & Share facility within SSA 14.1 development site	++	++	++	-	0	+
11	Active Travel route adjacent to A4119	++	+++	+	++	++	++
15	Park & Ride expansion north of the study area	-	+	++	0	0	0
22	Do Minimum	0	0	0	0	0	0

### Key

<b>Large positive</b> (+++)	<b>Moderate positive</b> (++)	<b>Slight positive</b> (+)	<b>Neutral</b> (0)
<b>Slight negative</b> (-)	<b>Moderate negative</b> (--)	<b>Large negative</b> (---)	

Table 6.4 considers the deliverability of the packaged options, which include the above individual options.

The appraisal against deliverability criteria at WelTAG Stage 1, the Strategic Outline Case included Option 1, which has been replaced by Option 1A following the comparison work that is described in Chapter 2. Although against other criteria, it was assumed that Option 1A would be the same as Option 1, further consideration has been given including the impact on the South Wales Fire & Rescue headquarters access.

It should be noted that the scores that were allocated to Options 2 and 15 (the Park & Ride/Share sites) have been revisited following environmental assessment work that has been undertaken since the WelTAG Stage 1, Strategic Outline Case was completed. In terms of Affordability, the scores from the Appraisal Summary Table (Table 3.11) have been included as they came directly from the economic assessment that is described in Chapter 3. The appraisal of the packaged options against Deliverability is Table 6.4.

The information contained in Table 6.4 (less the overall summary) is also shown in Appendix 2.18 (Worksheet 19) in Section 2 of the Impacts Assessment Report.

**Table 6.4: Appraisal of Packaged Options against Deliverability**

Packaged Option Ref.	Option (Long list option number)	Feasibility	Affordability	Acceptability	Timescale	Risks	Overall Summary
A	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> </ul>	++	++	+	+	-	++
B	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> <li>Adjacent Active Travel route (Option 11)</li> </ul>	++	++	+	+	-	++
C	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> <li>Adjacent Active Travel route (Option 11)</li> </ul>	--	--	0	--	--	-
	<ul style="list-style-type: none"> <li>Park &amp; Ride/Park &amp; Share facility within SSA 14.1 development site (Option 2)</li> <li>Park &amp; Ride expansion north of the study area (Option 15)</li> </ul>	--	++	0	--	---	--
D	<ul style="list-style-type: none"> <li>Do Minimum (Option 22)</li> </ul>	-	0	0	0	0	0

**Key**

<b>Large positive</b> (+++)	<b>Moderate positive</b> (++)	<b>Slight positive</b> (+)	<b>Neutral</b> (0)
<b>Slight negative</b> (-)	<b>Moderate negative</b> (--)	<b>Large negative</b> (---)	

In contrast to the individual options in Table 6.3, it is not straightforward to assess the deliverability of packaged options as shown in Table 6.4. Other than Packaged Option A, which is standalone in terms of its composition, even slight difficulties with individual options in Packaged Options B and C could have a detrimental impact on the ability to deliver the complete package. However, an attempt has been made to take this into account in Table 6.4.

Packaged Option A performs reasonably well against deliverability. With the Active Travel element that is added for Option B likely to be straightforward in terms of the deliverability criteria, it should make Option B no more difficult to provide although it is unlikely to make it easier. The addition of the two Park & Ride/Share sites to make Option C is likely to have a considerable impact on its overall deliverability partly due to their location, the greater number of known issues that are associated with them, including their commercial viability, the way that they would be managed, and their location. Rather than just give an overall rating for Packaged

Option C, each appraisal category has been split between having a subsidised and an unsubsidised bus service. Chapter 3: Transport Case gives further information about the issues.

## 6.7 Recommendations for Methods to Improve the Evidence Base in the Stage 3 Work

The recommended methods to improve the evidence base in the Stage 3 work are as follows:

- Detailed ecological and environmental studies to allow more detailed appraisal of impacts associated with the Desk-top study into the ecological and other impacts that will be associated with the preferred option at WelTAG Stage 3, the Full Business Case.
- Further design work;
- Detailed cost estimates;
- Quantified Risk Register;
- More detailed economic assessment; and
- Computer modelling.

In addition to the above, the A4119 Corridor Assessment study has also informed this Outline Business Case (WelTAG Stage 2). This has assessed the capacity of the A4119 from immediately north of the M4 at Junction 34 to the A4119/A4233 roundabout at Tonyrefail. The study has assessed the demand and capacity of junctions within the corridor taking into account existing and proposed developments. The output from this study has been a major contributor to this Outline Business Case for Coedely and may be utilised at the Full Business Case stage as well.

## 6.8 Summary of the Management Case

The project will have to go through a number of statutory and other stages as it progresses through the Stage 3 WelTAG process. Some of these have been outlined in the Management Case as well as other recommendations for further work that needs to be taken into account. It also lists the composition of the Review Group for the project.

## 7. Recommendations for WeITAG Stage 3

### 7.1 Introduction

The recommendation of the preferred packaged option to take forward to WeITAG Stage 3 for appraisal in the Full Business Case has been based on the following:

- Its ability to solve the identified problems;
- Its ability to meet the Transport Planning Objectives that have been set;
- Its short and longer term impacts;
- Its deliverability;
- Its economic performance; and
- Its robustness to uncertainty.

This WeITAG Stage 2 report has assessed a short-list of packaged options that were largely as those that emerged from the Stage 1 work. The only difference is that Option 1A has replaced Option 1, which results in a longer section of A119 dualling as well as removing a roundabout to achieve this.

The packaged options have been appraised in a variety of ways, ranging from their performance against high level national outcomes and goals, regional and local policies, specific Transport Planning Objectives, Economics, Environmental and Social criteria, their ability to solve identified problems, and their deliverability.

Although the scores from all the individual assessments can be aggregated together, this will not present a true reflection of the packaged option that will be best placed to become the Preferred Option and be taken forward to Full Business Case appraisal at Stage 3 WeITAG. A more qualitative approach is considered more appropriate, which has been supplemented by output from the economics assessment.

### 7.2 Summary and Recommendation

Throughout some of the various Cases covered in this WeITAG Stage 2, Outline Business Case (Strategic, Transport, Financial, Commercial, and Management), appraisal tables are included, some of which have had their results summarised whilst some, which are considered more important (such as Transport Planning Objectives), have not. These are very important in determining which packaged option should become the Preferred Option. The table below (Table 7.1), combines the results of all the appraisals, which gives a convenient way of determining the merits of each packaged option. The main outputs from the economics appraisal, the overall costs of each packaged option (Works Costs plus land and Optimism Bias, over 60 years, in 2018 prices), and the Benefit Cost Ratio (BCR), are included in Table 7.1.

It should be noted that there are two Benefit Cost Ratio (BCR) scenarios for Option B, which are based on low and high additional Active Travel trips. There are also two BCR scenarios for Option C, which are based on bus services associated with Park & Ride being either subsidised or unsubsidised.

**Table 7.1: Summary of Appraisal of Packaged Options against the Strategic Case, Transport Case, and Management Cases**

Packaged Option Reference	Option (Long list option number) Cost	Wales Transport Strategy (Outcomes)			WBOFGA (Goals)	Transport Planning Objectives						Appraisal Summary Table			Benefit Cost Ratio (BCR)	Tackling Problems	Delivery
		Soc.	Econ.	Env.		TPO1	TPO2	TPO3	TPO4	TPO5	TPO6	Econ.	Env.	Soc.			
A	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> </ul> <p><b>£12.55 million</b></p>	+	++	0	+	+++	+++	0	0	+	+	++	0	+	3.9	+++	++
B	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> <li>Adjacent Active Travel route (Option 11)</li> </ul> <p><b>£12.99 million</b></p>	++	++	+	++	+++	+++	++	+	+	+	++	0	++	3.8 (low estimate with 10 extra Active Travel trips per day)	+++	++
															4.0 (high estimate with 40 extra Active Travel trips per day)		

Packaged Option Reference	Option (Long list option number) Cost	Wales Transport Strategy (Outcomes)			WBOFGA (Goals)	Transport Planning Objectives						Appraisal Summary Table			Benefit Cost Ratio (BCR)	Tackling Problems	Delivery
		Soc.	Econ.	Env.		TPO1	TPO2	TPO3	TPO4	TPO5	TPO6	Econ.	Env.	Soc.			
C	<ul style="list-style-type: none"> <li>Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire &amp; Rescue Service headquarters roundabout (Option 1A)</li> </ul>																
	<ul style="list-style-type: none"> <li>Adjacent Active Travel route (Option 11)</li> <li>Park &amp; Ride/Park &amp; Share facility within SSA 14.1 development site (Option 2)</li> <li>Park &amp; Ride expansion north of the study area (Option 15)</li> </ul> <p><b>£14.28 million</b></p>	++	++	+	++	+++	+++	++	+	+	+	++	-	++ unsubs	1.5 subs	+++ subs	- subs
D	<ul style="list-style-type: none"> <li>Do Minimum (Option 22)</li> </ul> <p><b>£2.0 million</b></p>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Key

Large positive (+++)	Moderate positive (++)	Slight positive (+)	Neutral (0)	Slight negative (-)	Moderate negative (--)	Large negative (---)
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Due to their high level nature, the national outcomes and goals are met by all three of the packaged options. However, overall they are best met by Packaged Options B and C. Option D, Do Minimum (Option D) is generally neutral.

There are no direct references to any of the proposed packaged, or individual options that comprise the packaged options in either the South East Wales Valleys Local Transport Plan or the Rhondda Cynon Taf Local Development Plan. Nor are there any references to any other A4119 improvements specifically within the A4119 corridor at Coedely in these documents. There are references to Active Travel improvements outside of the corridor as well as to general improvements to public transport. Despite this, it has been demonstrated through the appraisal work included in the Strategic Case that a transport intervention that includes Active Travel and public transport elements would be beneficial.

The ability of packaged options to meet objectives is seen as particularly important. The ranking of the Transport Planning Objectives has meant that the focus is on improving journey times on the A4119 corridor as well as improving access to development areas. The dualling elements of Packaged Options A, B, and C align with these objectives very well. Option D, Do Minimum will be neutral against the Transport Planning Objectives.

In terms of their performance against the qualitative Economic, Environment, Social, and Public Accounts criteria within the Appraisal Summary Table, Packaged Options A and B perform well on most counts. Even though Packaged Option C also performs well, there are slightly more environmental disbenefits due to the Park & Ride/Share elements that it contains.

In terms of tackling the identified traffic and congestion problems within the A4119 corridor at Coedely, clearly a highway improvement (Option A) will be extremely beneficial and with the removal of the roundabout at the South Wales Fire & Rescue Service headquarters, a source of delay will be eliminated. This will allow a longer section of dual carriageway to be provided. The addition of Active Travel proposals (Packaged Option B) will give greater transport mode choice, as will the Park & Ride/Share sites (Option C). Option D, Do Minimum will be neutral against the Economic, Environment, Social, and Public Accounts criteria.

In deliverability terms, the dualling scheme alone (Option A) is the major transport proposal and it is likely to be feasible, affordable, and acceptable and can be provided within a reasonable timescale, with few risks. This will be the same when Active Travel proposals are added (Packaged Option B). The addition of Park & Ride/Share facilities (Packaged Option C) will impact upon deliverability due to their more peripheral location within the A4119 corridor and likely land issues. Economic disbenefits are outlined above.

One of the main indicators of any scheme is its Value for Money (VFM). Packaged Options A and B achieve high scores (3.9 to 4.0), which represents high Value for Money. The addition of Park & Ride/Share to Packaged Option B (to make Option C) makes a marked difference to these scores. If associated bus services are subsidised, Value for Money reduces to 1.5 (Low) but if they are not subsidised, this rises to 4.3, which is Very High. However, this requires funding, which may be considered unaffordable by Rhondda Cynon Taf CBC and has to be weighed against the uncertainty of operating Park & Ride/Share facilities without any subsidies.

Taking into account the wide range of assessment that has been undertaken in this WeITAG Stage 3, Outline Business Case, the following is suggested as the Preferred Option for more detailed appraisal at WeITAG Stage 3, Full Business Case.

**Suggested Option for Stage 3**

*B. Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire & Rescue Service headquarters roundabout, plus an adjacent Active Travel route, (Option 1A and Option 11);*

Although the inclusion of Park & Ride/Share facilities have been discussed and deemed far less favourable for the reasons given, future consideration could still be given to this completely separate to Packaged Option B. Of the two sites considered (within the SSA 14.1 site and north of the Study Area), it is considered that the former potentially has the most to offer and could possibly be linked to development proposals. However, there will always be the need to justify such a facility in economic terms, which is why the Preferred Option does not include this.

The Review Group met on 16 August to consider the Stage 2 WeITAG report and agree on an option to move forward with WeITAG Stage 3 Full Business Case

The Redstart recommendation for a more detailed appraisal at WeITAG Stage 3 Full Business Case is packaged Option B in this Stage 2 WeITAG report.

Option B, Dualling of the A4119, improvements to Coedely Roundabout, and removal of the South Wales Fire & Rescue Service headquarters roundabout, plus an adjacent Active Travel Route, (Option 1A and Option 11)

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