



Thames Valley Berkshire Local Economic Partnership

## **Independent Assessment Summary Report: Warfield Link Road Business Case**

Full Business Case Independent Assessment

WYG  
Executive Park  
Avalon Way  
Anstey  
Leicester  
LE7 7GR

Report No. RT-A087383-05

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Primary Author	David Cope	Initialled:	DC
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Contributor	Gabriel Davis	Initialled:	GD
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Review By	Colin Shields	Initialled:	CS
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# 1 Executive Summary

- 1.1 This technical note provides an independent review of the Warfield Link Road Business Case submission to the Thames Valley Berkshire Local Enterprise Partnership.

## SCHEME SUMMARY

- 1.2 The Warfield Link Road project provides a link between Forest Road (B3034) and Harvest Ride. It also provides a 'spine road' for a proposed housing development of 750 dwellings, including junction improvements between Forest Road (B3034) and Warfield Street (A3095) named Three Legged Cross.

## Review Findings

- 1.3 The review of the submitted Business Case identified the following:
- 1.3.1 The Business Case is detailed and comprehensive and addresses all of the main areas expected within a major scheme Business Case submission (see checklist in **Appendix A**).
- 1.3.2 The predicted overall Benefit to Cost Ratio (BCR) of the scheme is 7.668, which represents very high Value for Money (VfM).
- 1.3.3 There are, however, three main factors which the review would suggest should be taken into account when considering the overall benefits of the scheme:
- i) The model is of a base year of 2007 which exceeds the 6 year maximum age of a base traffic model as set out in WebTAG guidance. Bracknell Council have indicated that this was the only model available and the base model is in the process of being updated.
  - ii) The model does not include an interpeak model, therefore, not allowing the interpeak period to be fully assessed. This could result in an underestimate of the scheme benefits.
  - iii) There are 2,200 dwellings which according to the BC are dependent on the scheme, which means that WebTAG unit A2.3 'Transport Appraisal in the context of dependent



development' should be taken into account for the assessment, which has not been carried out. This could result in an overestimate of the scheme benefits.

## 2 Process

### LIAISON

- 2.1 Telephone discussions and emails have taken place during October and November 2014 to discuss queries on the scheme assessment work with Bracknell Forest Borough Council and their consultants WSP. It is recommended that the business case submitted to WYG is updated to reflect the comments provided, in particular those made post submission of the revised business case dated 22/10/14.

### OPTION ASSESSMENT REPORT (OAR) / APPRAISAL SPECIFICATION REPORT (ASR)

- 2.2 No stand alone OAR and ASR have been submitted as part of the assessment as it was agreed this was to be included within the Business Case for review. Warfield Link Road Forecasting and Validation Reports have been submitted alongside the FBC for review to give background information regarding the modeling of the proposed scheme.
- 2.3 It was confirmed that the overall modelling methodology for the assessment of the scheme has, in the most part, been included within the Economic Case chapter of the Business Case.

### REVIEW

- 2.4 A draft of the Full Business Case was submitted for review on the 10<sup>th</sup> October 2014 and revised and resubmitted on the 22<sup>nd</sup> October 2014, with the information provided (including all appendices) summarised in Section 3. Section 4 then provides a summary of the review findings.

## 3 Submitted Information

3.1 The Business Case independent assessment was carried out based upon the following reports and appendices submitted by Bracknell Forest Council and their consultant team WSP:

- Warfield Link Road Business Case draft dated 10.10.2014 / Updated 22.10.14
- Appendix A – GIS Maps
- Appendix B – Designs
- Appendix C – Management Case Information
- Provided as a separate document is the AST

## 4 Review

### OPTIONS ASSESSMENT

- 4.1 The options which have been included within the Business Case provides a summary of the considered options.
- 4.2 The scheme proposed for current funding represents the strategic approach considered to be the most deliverable of the main options, with the main options including a roundabout or a signalised junction at Three Legged Cross. Both of these options were subsequently omitted due to land constraints or negatively impacting on the existing river, which was an issue raised by the Environment Agency.
- 4.3 The preferred option is understood to form the best option allowing the 'opening up' of prime development land as well as providing a suitable spine road for the proposed development.
- 4.4 It is not clear if the assessment of the options clearly follows the WebTAG Option Appraisal Guidance, however, the rational for selecting the proposed scheme is clear within the Full Business Case.

### APPROACH TO MODELLING

- 4.5 The Bracknell Multi-Modal Transport Model (BMMTM), Variable Demand Model has been used to assess the impact that the proposed link road will have on the wider network. It has been revalidated to a 2007 base year, to include a greater level of detail within the Wokingham Borough Council area, which involved the 'infilling' of the highway network.
- 4.6 Having reviewed the modeling information in regard to the proposal, several issues have arisen which are set out in the following paragraphs of this section.
- 4.7 It was noted that although the model has been revalidated in parts, it has been re-validated to the original base year of 2007, this exceeds the 6 year maximum age as set out in WebTAG modeling guidance. Bracknell Council have indicated that this was the only model available and the base model is in the process of being updated.
- 4.8 We noted that the fuel-cost elasticity is significantly below that specified within WebTAG. This indicates that the variable demand responses may not be strong enough in the model to

properly represent travel changes due to changes in the generalized costs. However, the scheme costs are only just above £5m and so the model outputs maybe proportionate to use in assessing this scheme, although the benefits could be overstated.

- 4.9 The last aspect which is a major issue is that the report states that there are to be 2,200 dwellings dependent on the scheme. This means that WebTAG unit A2.3 “transport-appraisal-in the context of dependent development” applies and the steps set out within this should be followed. The “with-dev, without-scheme” scenario has been compared to the “with-dev, with-scheme” scenario. This is not the correct comparison and the resulting economics therefore cannot be considered realistic.

## BUSINESS CASE

### Format and Content

- 4.10 The first draft provided for assessment was identified by WYG to have major components of a Full Business Case missing, including one of the five cases, that of the Commercial Case. Other aspects including identifying the problems and options were also missing within the Strategic Case, with evidence of similar projects, organisation structure and roles also not being included within the Management Case.
- 4.11 As a result a revised second draft including all the aspects which should be included as part of a Full Business Case was provided for further assessment.
- 4.12 The revised Business Case submitted is comprehensive and covers each of the main categories expected for a scheme of this scale. A Business Case checklist is provided as **Appendix A**.
- 4.13 This checklist confirms whether each of the expected sub-sections within the 5 cases have been adequately covered within the submitted Business Case and provides explanatory notes where a specific area may not be fully addressed.

### Value for Money

- 4.14 The Warfield Link Road Business Case details a Benefit to Cost Ratio (BCR) for the project of 7.668, which represents a very high Value for Money (VfM) scheme.
- 4.15 However, this BCR has been considered in the light of the following main influencing factors, detailed below.

- i) The report highlights that there are 2,200 houses dependent on the installation of the proposed scheme, which in turn means that WebTAG unit A2.3 “transport appraisal in the context of dependent development” applies and the steps set out there should be followed. The “with-dev, without-scheme” scenario has been compared to the “with-dev, with-scheme” scenario. This is not the correct comparison and the resulting economics therefore cannot be considered realistic.
- ii) It was also identified that the fuel-cost elasticity is significantly below that specified in WebTAG. This indicates that the variable demand responses may not be strong enough in the model to properly represent travel changes due to changes in generalised cost. However, the scheme costs are only just above £5m and so the model outputs may be proportionate to use in assessing this scheme although the benefits could be overstated.
- iii) The revalidation of the model led to a revised base year of 2007. This exceeds the WebTAG guidance of a maximum six years of an age for a model to be used, unless new surveys have been undertaken to check the network changes made since the base year.

4.16 Due to the complexity of the issues which have been highlighted and due to the tight deadlines, the above could not be mitigated against as they are fundamental modelling issues which would lead to major delay in the implementation to the scheme.

4.17 It is noted that the impact on accidents has not been quantified (eg by using COBALT) and it is recommended that this assessment is carried out.

#### Appraisal Summary

4.18 A review of the appraisal summary contained within the Business Case submission is provided in **Table 1** below. Areas where the review disagrees or queries the proposed level of benefit or disbenefit associated with the scheme are detailed and explanatory notes provided.

**Table 1 - Appraisal Summary**

Category	Sub-category	Business Case Assessment	Agree / Disagree with Assessment	Notes
Economy	Business users & transport providers	Highly beneficial	Disagree	See comments in report.
	Reliability impact on Business users	Highly beneficial	Disagree	See comments in report.

	Regeneration	Highly beneficial	Agree	
	Wider Impacts	Neutral	Disagree	Wouldn't a new link road improve the wider transport network?
Environmental	Noise	Slightly Adverse	Agree	
	Air Quality	Slightly Adverse	Agree	
	Greenhouse gases	Neutral/Slightly Adverse	Agree	
	Landscape	Slightly Beneficial	Disagree	The proposed link road will cut through Lark's Hill Park and Countryside. It does however, state that any trees which need to be removed as a result of the development shall be relocated.
	Townscape	Slightly Beneficial	Agree	
	Historic Environment	Neutral	Agree	
	Biodiversity	Slightly Adverse	Agree	
	Water Environment	Neutral	Disagree	With a new road, it would be expected that an increase in surface water runoff would occur leading to an increase in local flooding.
Social	Commuting and Other users	Highly Beneficial	Agree	
	Reliability impact on Commuting and Other users	Highly Beneficial	Agree	
	Physical activity	Slightly Beneficial	Agree	
	Journey quality	Slightly Beneficial	Agree	
	Accidents	Neutral	Agree	
	Security	Highly Beneficial	Agree	
	Access to services	Slightly Beneficial	Agree	
	Affordability	Neutral	Agree	
	Severance	Slightly Beneficial	Agree	
	Option and non-use values	Neutral	Agree	
Public Accounts	Cost to Broad Transport Budget	Monetary value included	Agree	
	Indirect Tax Revenues	Slightly Adverse	Agree	

## Risks

- 4.19 The submitted Business Case includes a Quantified Risk Assessment, which provides a detailed breakdown of the project risks and associated weighted costs relevant to the project, the key risks that have been identified have been assessed through Monte Carlo simulation, and the risk register can be seen within Appendix C of the Full Business Case.

- 4.20 The majority of the risks which could be associated with this scheme are understood to stay with the developer of the proposed housing development, Berkeley Homes, this includes all those listed within the Business Case QRA, plus construction cost inflation, variable ground conditions, weather impacts on delivery of the program, and contractor failure as typical examples.



## Appendix A – Business Case Checklist

Project Number: A087383-05  
 Scheme: Warfield Link Road Business Case  
 Submitted by: Slough Borough Council

Strategic Case	Addressed within Business Case	Notes	Economic Case	Addressed within Business Case	Notes	Financial Case	Addressed within Business Case	Notes	Commercial Case	Addressed within Business Case	Notes	Management Case	Addressed within Business Case	Notes
Business Strategy	Y		Options appraised	Y		Costs	Y	They have stated that the cost risks lie with Berkeley Homes, the developer.	Output based specification	Y		Evidence of similar projects	Y	
Problem Identified	Y		Assumptions	Y		Budgets / Funding Cover	Y		Procurement Strategy	Y	This will be undertaken by Berkeley Homes as the developer of the site.	Programme / Project dependencies	Y	
Impact of not changing	Y		Sensitivity and Risk Profile	N		Accounting Implications	Y		Sourcing Options	Y		Governance	Y	
Drivers for change	Y		Appraisal Summary Table	Y					Payment Mechanisms	Y		Programme / Project Plan	Y	
Objectives	Y		Value for Money Statement	Y					Pricing Framework and charging mechanisms	Y		Assurances and approvals	Y	
Measures for success	Y								Risk allocation and transfer	Y		Communication & Stakeholders	Y	
Scope	Y								Contract length	Y		Project Reporting	N	
Constraints	Y								Human resource issues	Y		Implementation	Y	
Inter-dependencies	Y								Contract management	Y		Key Issues	Y	
Stakeholders	Y											Contract Management	Y	
Options	Y											Risk Management	Y	The Monte Carlo Simulation for risk assessment has been used.
												Benefits realisation	Y	
												Monitoring and evaluation	Y	
												Contingency	Y	
												Options	Y	