



Thames Valley Berkshire Local Economic Partnership

Independent Assessment Summary Report: Kings Road Link Road

Outline Business Case Independent Assessment

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Appendices

Appendix A – Business Case Checklist

1 Executive Summary

- 1.1 This technical note provides an independent review of the Kings Road Link Road Business Case submission to the Thames Valley Berkshire Local Enterprise Partnership. It should be noted that WSP (West Berkshire Consultants) have confirmed that this is an Outline Business Case and not a Full Transport Business Case. The Thames Valley LTB Founding Document indicates in Part 3 paragraph 3 that, for programme management and investment decisions that the proposer will develop a Full Transport Business Case. We recommend that TVLTB discuss this issue with West Berkshire Council and decide whether the outline business case as submitted is sufficient for the purposes of the LTB investment decision. WYG have queried with West Berkshire Council and WSP why this is an Outline and not a Full Business Case.

SCHEME SUMMARY

- 1.2 The Kings Road Link Road includes the development of a 7.3m two way single carriageway road approximately 160m long with a 30mph speed limit between the existing Sainsbury's roundabout to Kings Road at the Boundary Road/ Hambridge Road junction.
- 1.3 Access to the existing dwellings on Kings Road will be from the west and will be made two way. There will be no access from the east to the existing Kings Road. The road will have a roundabout access junction to allow from the proposed development traffic to enter and exit.

REVIEW FINDINGS

- 1.4 The review of the submitted Business Case identified the following:
- 1.4.1 The Business Case is detailed and comprehensive and addresses all of the main areas expected within an outline Business Case submission (checklist provided as **Appendix A**).
- 1.4.2 The predicted overall Benefit to Cost Ratio (BCR) of the scheme is 5.962, which represents Very High Value for Money (VfM).
- 1.4.3 No information on air quality assessments was provided in the Business Case.
- 1.4.4 There are 3 key issues which the review suggests should be taken into account when considering the overall benefits of the scheme. It is considered that these could result in an

overestimate of the economic benefits of the scheme and the issues relate to the modelling and TUBA appraisal of the scheme:

- i) The base transport model used for the assessment of the scheme (and it is noted that the model is calibrated and validated on link flows only) assigns 717 more trips than observed in the PM peak on the Mill Lane approach at the adjacent A339/Bear Lane junction. Further information was provided by WSP in terms of plots, from which it is concluded by WSP that the routing is localised and hence is acceptable. However, it is WYG view that the traffic is still there in the model and so the benefits could still be being over-estimated.
- ii) Specific sector to sector movements have been removed from the TUBA assessment. In turn this has lead to large benefits and large disbenefits being omitted from the final benefit calculation, which highlights possible concerns regarding the reliability of the model. Further information was provided by WSP regarding the Saturn convergence criteria which have been tightened up and the models rerun. The reruns have yielded lower benefits in line with the reductions to the annualisation factors (see below). Some of the extreme sector-to-sector changes have been smoothed out. It is also reported that significant benefits arise from journey time savings in excess of five minutes. This is considered to be unusual for a scheme of this type and WYG consider that this needs further investigation. We do not agree with the conclusion that long journey time savings have to come from long-distance trips.
- iii) The annualisation factors used in the TUBA assessment have been derived using peak hour to peak period factors rather than the method set out within TUBA guidance. Further information was provided by WSP on revised annualisation factors which provided a lower BCR on the basis of no sector to sector amendments. No information was provided on an assessment with the sector to sector changes (as presented in the OBC) and, as such, we are unable to confirm whether this test is satisfactory.

1.4.5 Therefore, it is not possible to fully recommend the business case as submitted and it is considered that the business case will require updating in order to be considered suitable for final submission. However, the underlying case for the scheme would appear to be positive and, as such, a conditional approval subject to addressing the modelling and economic queries raised within a re-submitted case, is considered to be an appropriate way forward.



2 Process

MEETINGS

- 2.1 An initial project inception meeting was held on 23rd July 2014 with West Berkshire Council and WSP to introduce the scheme and to discuss the timescales and requirements for the Business Case submission.
- 2.2 This was followed by subsequent telephone discussions and emails during September, October and November 2014 to discuss queries on the scheme assessment work. 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 business case on 13/10/14.

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

- 2.3 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. The LMVR of the West Berkshire Base Model (WBBM) and the Newbury Network Data Report have been provided to give background information regarding the modelling of the scheme.
- 2.4 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.
- 2.5 Having conducted a review of the modelling information provided and that included within the Economic Case, we have identified issues concerning the base WBBM and TUBA analysis conducted for the creation of benefits formed from the proposed scheme.

REVIEW

- 2.6 Following the review of the draft Business Case, comments have been provided concerning issues raised. The Business Case was submitted on the 13th October 2014 with the information provided (including all appendices) summarised in Section 3 and the results from the review presented in Section 4.

3 Submitted Information

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

- Kings Road Link Road final Business Case (13/10/14).
- Appendix A – Annual Average Daily Traffic (AADT) Flows - 2013 base year and forecast years of 2019 and 2026: Without Scheme
- Appendix B – Annual Average Daily Traffic (AADT) Flows - Forecast years of 2019 and 2026: With Scheme
- Appendix C – TUBA – initial results
- Appendix D – Appraisal Summary Table
- Appendix E – Scheme pro-forma
- Appendix F – Bill of Quantities
- Appendix G – Outline project programme

4 Review

OPTIONS ASSESSMENT

- 4.1 Section 3.13 of the submitted Business Case provides a brief summary of the options considered which has resulted in the development of the preferred option. This included a proposal for a new bridge over the railway connecting to Queen's Road; the Business Case later states that this was omitted at a subsequent revision in 1997.
- 4.2 Having sent a request for further details concerning option appraisal, it was stated that there is no other option and the proposal which is to be carried forward utilises a protected line which has been there for a number of years.
- 4.3 As no other option has been specifically identified and investigated to prove viability as part of the assessed options, nor an OAR provided it is, therefore, not possible to comment if the WebTAG guidance for Options Assessment has been used to appraise the options.
- 4.4 The majority of scheme benefits resulting from the development of the scheme include journey time savings for both cars and HGV users, improving the quality of life to those that live around the existing congested Kings Road and enabling the opening of prime development site.
- 4.5 The scheme proposed for current funding represents the strategic approach considered to be the most deliverable of the only one other option presented, which has support from the local council.

APPROACH TO MODELLING

- 4.6 It was previously been agreed that no ASR was necessary as part of the review of the proposed scheme, as a result it has not been possible to evaluate the modeling specifically for the proposal in depth.
- 4.7 Having requested further information it was subsequently stated that the information required with regards to modelling has been included within the Business Case report. To supplement this the LMVR for the core model was also provided alongside the Business Case.

4.8 Having reviewed what was included within the Outline Business Case as well as the LMVR provided for the West Berkshire Base Model, the following concerns with the modelling and TUBA appraisal work have been identified:

1. The base transport model used for the assessment of the scheme (and it is noted that the model is calibrated and validated on link flows only) assigns 717 more trips than observed in the PM peak on the Mill Lane approach at the adjacent A339/Bear Lane junction.
2. Specific sector to sector movements have been removed from the TUBA assessment. In turn this has led to large benefits and large disbenefits being omitted from the final benefit calculation, which highlights possible concerns regarding the reliability of the model. Further information was provided by WSP regarding the Saturn convergence criteria which have been tightened up and the models rerun. The reruns have yielded lower benefit in line with the reductions to the annualisation factors. Some of the extreme sector-to-sector changes have been smoothed out. It is also reported that significant benefits arise from journey time savings in excess of five minutes. This is considered to be unusual for a scheme of this type and WYG consider that this needs further investigation. We do not agree with the conclusion that long journey time savings have to come from long-distance trips.
3. The annualisation factors used in the TUBA assessment have been derived using peak hour to peak period factor rather than the method set out within TUBA guidance. Further information was provided by WSP on revised Annualisation factors which provided a lower BCR on the basis of no sector to sector amendments. No information was provided on an assessment with the sector to sector changes and as such we are unable to confirm whether this test is satisfactory.

4.9 In response to the aspects mentioned above, the following response has been provided from WSP;

1. *'The traffic model is only a prediction of what may happen in the future and the reason for the removal of some of the sector to sector benefits and dis-benefits is that they are in areas where, in reality, you would not expect a localised highway scheme to give that level of benefits or dis-benefits.'*

2. *'If you only use the 253 peak hours per peak then the TUBA economic assessment could potentially under-estimate the benefits of a scheme and hence the use of peak hour to peak period factors to ensure that the economic assessment covers e.g. the 07:00-10:00 period.'*
3. *'The traffic model has been calibrated and validated on link flows and not on turning movements in general although we have looked at a number of junctions where the GEH criteria has been relaxed to 7.5 for turning movements instead of the value of 5 as is standard for links. The issue at junction 16 for that specific movements seems to be:*
 - *a routing of traffic from the A339 (N) along Mill Lane in the PM peak to access Boundary Road rather than using the Bear Lane roundabout to access Queen's Road.*
 - *traffic accessing the A4 from the south is using the B3421 Hambridge Road via Mill Lane rather than Boundary Road to avoid the narrow road crossing the railway line to the south of the B3421 Hambridge Road/Boundary Road junction.'*

BUSINESS CASE

Format and Content

- 4.10 Having conducted a review of the Business Case provided it has been identified that it is comprehensive and covers each of the main categories expected for a scheme of this scale. A Business Case checklist has been provided as **Appendix A**.
- 4.11 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.
- 4.12 In response to a query on the COBALT accident assessment which was carried out on a link assessment basis only, WSP provided results from a combined Link and Junction assessment. The benefits reported on this appear to be unrealistically high and we would ask WSP to review these.
- 4.13 No data was available for the air quality assessment and as such is not commented on in this review.

Value for Money

4.14 The Kings Road Link Road Business Case details a Benefit to Cost Ratio (BCR) of 5.962, 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) As detailed in the previous section of this note, it has been discovered that some sector to sector movements have been omitted along with specific travel times and vehicle operating costs, which in turn has lead to an adjusted BCR.

ii) As well as the annualisation factors not being created in accordance with TUBA guidance, it is noted that a Low and High Growth sensitivity test has not been carried out in accordance with WebTAG. A 0%, 15% and 44% Optimum Bias sensitivity test is reported on.

iii) The base transport model used for the assessment of the scheme (and it is noted that the model is calibrated and validated on link flows only) assigns 717 more trips than observed in the PM peak on the Mill Lane approach at the adjacent A339/Bear Lane junction.

Appraisal Summary

4.16 A review of the appraisal summary table 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 Kings Road Link Road 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	Distributional Scale = Beneficial	Disagree	See comments in report.
	Reliability impact on Business users	Beneficial	Disagree	See comments in report.
	Regeneration	Neutral	Agree	
	Wider Impacts	N/A	Agree	
Environmental	Noise	Qualitative and Distributional	Agree	

		Scale = Beneficial		
	Air Quality		TBC	No details provided for assessment.
	Greenhouse gases	Quantitative figure provided	Agree	
	Landscape	N/A	Disagree	Not assessed.
	Townscape	N/A	Disagree	Not assessed.
	Historic Environment	N/A	Disagree	Not assessed.
	Biodiversity	N/A	Disagree	Not assessed.
	Water Environment	N/A	Disagree	Not assessed.
	Journey Ambiance	No Qualitative or Quantitative assessments have been undertaken.	Disagree	However, WSP state within the Summary of key impacts that the scheme improves the pedestrian and cycleway network within the areas surrounding the scheme and can be considered to be beneficial.
Social	Commuting and Other users	Distributional Scale = Beneficial	Agree	
	Reliability impact on Commuting and Other users	No Qualitative or Quantitative assessments have been undertaken.	Disagree	However, WSP state within the Summary of key impacts that the scheme provides a more direct route between the A339 and Hambridge Road Industrial Estate.
	Physical activity	No Qualitative or Quantitative assessments have been undertaken.	Disagree	However, WSP state within the Summary of key impacts that the scheme provides improved pedestrian and cycling facilities in the immediate area will make it more attractive for these modes to be used.
	Journey quality	No Qualitative or Quantitative assessments have been undertaken.	Disagree	However, WSP state within the Summary of key impacts that the scheme will provide improved connections and improve journey quality.
	Access to services	No Qualitative or Quantitative assessments have been undertaken.	Disagree	However, WSP state within the Summary of key impacts that the scheme will improve to bus services can provide an alternative transport mode to the car.
	Affordability	Neutral	Agree	
	Severance	Moderate Beneficial	Agree	
	Option and non-use values	Neutral	Agree	
Safety	Accidents	Beneficial	Disagree	See comments in report.
	Security	No Qualitative or Quantitative assessments have been undertaken.	Disagree	However, WSP state within the Summary of key impacts the link road is likely to have a minimal impact on the perception of risk.
Public Accounts	Cost to Broad Transport Budget	A Monetary Value has been included.	Agree	
	Indirect Tax Revenues	A Monetary Value has been included.	Agree	

Risks

- 4.17 The submitted Business Case does not include a Quantified Risk Assessment, which would normally be expected to provide a detailed breakdown of the project risks and associated weighted costs relevant to the project. This is stated as being due to it being created by the developer of the site.
- 4.18 A high level risk register for the delivery of the scheme is provided within the Business Case which identifies three main aspects of risk, including;
1. Approvals and acquisitions; which includes the risk of, if planning permission is not granted, issues concerning land ownership and LTB approval not being granted;
 2. Costs and funding; which includes, sources of funding not being available and issues with escalating cost, and;
 3. Delivery; which includes, delay of the delivery of the scheme, risk of contractor's and the developer's business folding during the scheme delivery.
- 4.19 Without detailed information which would normally be provided within a Quantified Risk Assessment, it is not possible to note if there are other risks which could cause issues in regard to the development of the scheme outlined.



Appendix A – Business Case Checklist

Project Number: A087383-04
 Scheme: Kings Road Link Road
 Submitted by: Newbury

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		Output based specification	Y		Evidence of similar projects	Y	
Problem Identified	Y		Assumptions	Y		Budgets / Funding Cover	Y		Procurement Strategy	Y		Programme / Project dependencies	Y	
Impact of not changing	Y		Sensitivity and Risk Profile	Y		Accounting Implications	Y		Sourcing Options	Y		Governance	Y	
Drivers for change	N	This has not been assessed.	Appraisal Summary Table	Y					Payment Mechanisms	Y		Programme / Project Plan	Y	
Objectives	Y		Value for Money Statement	Y					Pricing Framework and charging mechanisms	Y	This has been included within Payment Mechanisms.	Assurances and approvals	Y	
Measures for success	Y								Risk allocation and transfer	Y		Communication & Stakeholders	Y	
Scope	Y								Contract length	Y		Project Reporting	Y	
Constraints	Y	None Known.							Human resource issues	N	This has not been assessed.	Implementation	Y	
Inter-dependencies	Y	None Known.							Contract management	Y		Key Issues	Y	
Stakeholders	Y											Contract Management	Y	
Options	Y	Only one previous outdated (1997) option of a bridge crossing the railway has been included.										Risk Management	Y	This is included with key issues for implementation.
												Benefits realisation	Y	
												Monitoring and evaluation	Y	
												Contingency	N	This has not been assessed.
												Options	N	The report states this has not been established at this stage.