



**HATCH**  
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**Independent Assessment Summary Report:  
Reading West Railway Station Upgrade**  
Scheme Ref 2.35

**A Final Report by Hatch Regeneris  
November 2019**

# Thames Valley Berkshire Local Enterprise Partnership

## Independent Assessment Summary Report: Reading West Railway Station Upgrade Scheme Ref: 2.35

November 2019

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# Executive Summary

- i. This technical note provides an independent assessment of the Reading West Railway Station Upgrade (RWRSU) scheme Business Case submission to the Thames Valley Berkshire Local Enterprise Partnership.

## Scheme Summary

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- ii. The business case submission sets out the case for investment in the RWRSU scheme, incorporating the following core elements:
  - New building and interchange facilities;
  - Improvements to platform waiting facilities;
  - Improvements at the Tilehurst Road entrance;
  - Better safety and security across the station; and
  - Highway improvements on the A329 Oxford Road outside the station, including realignment of Oxford Road and relocation of a bus shelter to create space for the new station building footprint and cycle parking.
- iii. The scope of the station upgrade does not include the installation of lifts, which the scheme optioneering process concluded is not currently affordable. However, the final scheme design will include 'passive provision' to enable future installation of lifts if funding materialises.
- iv. The overall scheme cost is estimated to be £4.24 million, with £3.1 million sought from the Local Growth Fund (LGF).
- v. The new station facilities are currently programmed to be completed and opened by 28<sup>th</sup> September 2021.

## Review Findings

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### Conclusions

- vi. The Strategic Case demonstrates alignment with strategic priorities and the provides strong evidence of the current poor conditions at Reading West Station and the requirement for enhancement to promote sustainable travel.
- vii. The approach to assessing the economic benefits of the scheme is considered to be robust, but it is recognised that there is significant reliance upon the forecast level of revenue generated from new passengers to off-set the capital and operating costs of the scheme. If rail patronage levels were not to meet expectations, then the scheme may only achieve 'medium' value for money; however, this is considered to be relatively unlikely outcome.
- viii. The Financial Case is considered to be broadly sound, with a reasonable level of contingency and risk. However, the final scheme costs for the internal station works may not be known until May 2020, and there remains a risk that the overall scheme costs could exceed the total allocated budget. It is not clear how any potential need for additional funding would be covered, or if this would affect the overall scale of the project that would be delivered.

- ix. The Commercial Case is considered to be relatively succinct but there is sufficient evidence to conclude that the RBC-led and GWR-led elements of the scheme are to be procured in an effective manner.
- x. The Management Case provides reasonable assurance that overall processes are in place to effectively oversee the delivery of the scheme. There are, however, some notable risks remaining in relation to the final scheme design and planning-related matters that could affect either the delivery programme and/or the overall cost of the scheme.
- xi. It is our conclusion that there appears to be a strong overarching case for investment in the scheme but that notable uncertainties remain in relation to the final detailed design and planning requirements. These issues are of particular pertinence as they may not be resolved until May 2020.

### **Recommendations**

- xii. To approve this scheme, we would recommend that a clear process is established by which to monitor and update these risks on a monthly basis, and that TVB LEP should retain the right to withhold funding unless completely satisfied that the full scheme will be completed, in its entirety (as specified within the FBC), by September 2021.

# 1. Introduction

- 1.1 This report provides an independent assessment of the Full Business Case (FBC) submitted by Reading Borough Council (RBC) for the delivery of the Reading West Railway Station Upgrade (RWRSU) scheme.
- 1.2 The report considers the evidence presented and whether it represents a robust case for the investment of Thames Valley Berkshire Local Enterprise Partnership (TVB LEP) growth deal funds.
- 1.3 The independent assessment has applied criteria from TVB LEP assurance framework and the requirements for transport scheme business cases set out within the Department for Transport (DfT) WebTAG.

## Submitted Information

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- 1.4 The independent assessment process for the RWRSU submission has been conducted on the following set of documentation submitted by RBC and their consultant team (PBA):
  - Appraisal Specification Report (April 2019)
  - Reading West Masterplan (November 2015)
  - Full Business Case Report (October 2019)
- 1.5 In addition to these formal documents, Hatch Regeneris have engaged with RBC and their consultants between April 2019 and October 2019 to discuss the requirements of the final business case submission and comment upon the acceptability of the proposed appraisal approach and input assumptions and parameters.
- 1.6 No specific Option Appraisal Report was submitted as part of the business case process; however, the Reading West Masterplan document provides evidence of the optioneering process that has been undertaken for the station and supports the narrative provided within the full FBC.

## Report Structure

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- 1.7 This Independent Assessors Report responds to the formal submission of documentation, as well as the informal engagement process with RBC and their consultants, to provide a review of information provided, assess its suitability and robustness against TVB LEPs assurance requirements, and provide recommendations in relation to the approval of LEP funding for the proposed scheme.
- 1.8 The report is structured as follows:
  - **Section 2: Appraisal Specification Report** – presents a high-level review of the ASR and the acceptability of the proposed appraisal approach to be adopted
  - **Section 3: Full Business Case Submission** – presents an initial summary of scheme elements included in the business case submission, alongside the details presented within each of the five 'cases' (Strategic, Economic, Financial, Commercial, Management). It also sets out the recommendations to the LEP Local Transport Body relating to the suitability of the scheme for funding.

## 2. Appraisal Specification Report

### Overview

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- 2.1 The Appraisal Specification Report (ASR) was submitted for assessment and reviewed by Hatch Regeneris in April 2019. It provided:
- A summary of challenges and issues relating to the station and how the primary objective is to overcome these challenges and issues;
  - An overview of the scheme and its location;
  - The proposed approach to modelling and appraisal, including:
    - the use of existing data and the requirement for new data collection;
    - a summary of the proposed approach to the economic assessment, including assumptions and parameters;
    - the process for estimating scheme benefits;
    - the estimation of scheme costs;
    - the assessment of value for money; and
    - the approach to determining environmental and other impacts.
- 2.2 Hatch Regeneris provided initial feedback on overall proposed approach and specific detailed elements. PBA subsequently provided additional clarification and acknowledgement of required revisions to the approach.

### Review

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- 2.3 The ASR sets out a clear understanding of the challenges and issues currently facing Reading West Railway Station. These are categorised into issues of 'poor environment', 'security', 'poor access', 'mobility/access', 'fare evasion', 'comfort', and 'local congestion', providing clear objectives for improvement.
- 2.4 A broad overview of the context of the scheme is provided, alongside a description of the main component parts of the schemes, although some additional clarification was required in relation to the footbridge elements of the scheme, which was subsequently provided.
- 2.5 The ASR highlights that there remains uncertainty whether Great Western Railways (GWR) will support the installation and/or operation of the proposed ticket barriers. As such, a sensitivity test will be undertaken without this scheme element. It was also agreed with the Applicant that high and low growth sensitivity tests will be undertaken.
- 2.6 There are GWR proposals for increased train frequencies from the station and it was confirmed with the Applicant, that these will form part of the Reference Case scenario.
- 2.7 The limitations with some existing station usage and revenue data is highlighted within the ASR and the subsequent requirement for additional survey work to be undertaken. The proposed approach outlined is considered robust and additional confirmation of target sample sizes was provided by the Applicant.
- 2.8 The general approach outlined for the economic assessment is considered to be consistent with DfT TAG requirements for a railway station scheme of this type and the assessment parameters presented are, broadly, acceptable. Whilst it is considered acceptable that a

60-year appraisal period is applied for the majority of benefits, it was agreed with the Applicant that consideration should be given to the life-expectancy of individual scheme elements and appropriate renewal values included.

- 2.9 The proposed level of optimism bias to be included within the economic assessment, at 9%, is considered appropriate but that it should be reviewed once further design work and risk assessments have been undertaken for the full business case.
- 2.10 Section 4.4 of the ASR, describing the estimation of scheme benefits, indicates that the majority of benefits from the scheme will accrue to existing users of the station and those forecast to use the station in the future as a result of background growth. This should include any growth in demand associated with the increase in train frequency. It is not clear, from the ASR, how these benefits to existing users will be captured through the methodology proposed. It has been suggested to the Applicant that that they could be captured through an evaluation of the benefit of an enhanced station environment and safety and security, through the application of industry-standard attribute values.
- 2.11 The proposed assessment, and capture, of additional fare revenue from generated rail travel is, in principle, acceptable. This assessment will need to focus on additional rail travel generated as a direct result of the station upgrades. It has been noted to the Applicant that including all of this additional fare revenue is only acceptable if it can be demonstrated that there will be no additional impact upon train operating costs for the TOC, nor any impact upon crowding for existing users of the rail services. In other words, the Full Business Case can only claim these additional rail revenue benefits, in full, if there are no associated costs to underlying rail operations and passengers. A brief explanation of the franchising arrangements for the line will be required so that it is clear who captures this increased revenue, noting that this is likely to change over time through re-franchising processes.
- 2.12 The proposed approach to assessing Marginal External Costs of the scheme is stated within the ASR to follow standard TAG procedures and so is deemed to be acceptable, although no details are presented.
- 2.13 The approach to assessing active travel benefits is also considered appropriate, although clarification was sought from the Applicant on how it is intended to estimate the proportion of travellers cycling to the station. We understand this will be done on the basis of information collected through the station surveys.
- 2.14 The approaches to estimating scheme costs, risks, summary economic appraisal, and value for money are all considered acceptable.
- 2.15 The proportional approach to assessing environmental and social impacts is considered acceptable. For those elements where only a qualitative assessment will be undertaken, clear statements will be required that establish the full range of potential impacts. Clear logic chains should demonstrate how and why they will occur, and the likely scale of each impact.



## 3. Full Business Case

### Overview

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- 3.1 The full business case submission sets out the case for investment in the Reading West Railway Station Upgrade (RWRSU) scheme. The scheme includes the following elements:
- New building and interchange facilities (*new ticket office, retail space, ticket barriers, gate for out-of-hours access, new ticket vending machines, new ramp to station platforms, new permanent steps to Platform 1*);
  - Improvements to platform waiting facilities (*shelter, CIS screens and information boards*);
  - Improvements at the Tilehurst Road entrance (*including a suitable design solution for the installation of ticket barriers*);
  - Better safety and security across the station; and
  - Highway improvements on the A329 Oxford Road outside the station, including realignment of Oxford Road and relocation of a bus shelter to create space for the new station building footprint and cycle parking.
- 3.2 The scope of the station upgrade does not include the installation of lifts, which the scheme optioneering process concluded is not currently affordable. However, the final scheme design will include 'passive provision' to enable future installation of lifts if funding materialises.
- 3.3 It is understood that the operation of the ticket barriers requires two members of staff to be present at the station. At this stage, it remains unclear whether GWR will support this additional staffing. As such, an alternative scenario is also under consideration in which there are no ticket barriers installed and, hence, a lower staffing level required. This is assessed separately within the FBC.

### Key Input Assumption and Parameters

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- 3.4 The overarching business case is based upon a range of key assumptions, as follows:
- An increase in train service provision from 2 to 3 trains per hour between Reading and Basingstoke that stop at Reading West Station
  - A 60-year appraisal period
  - Costs and benefits discounted to 2010 prices
  - Rail revenue growth post 2021 of RPI +1%
  - Underlying rail passenger growth:
    - 7.1% - 2019 to 2020
    - 8.0% - 2020 to 2021
    - 2% p.a. thereafter
  - Rail demand growth capped after 20 years
  - Optimism Bias of 9%

## Independent Assessor Comment

- 3.5 It has been confirmed that the proposed rail timetable change is proceeding in December 2019.
- 3.6 The 60-year appraisal period and the discount period represent the standard for major transport schemes and is considered appropriate given the inclusion of renewal costs within the Financial Case.
- 3.7 The assumptions around rail revenue and patronage growth appear reasonable and in line within industry expectations.
- 3.8 The 9% optimism bias is considered acceptable, given the level of detail presented around the scheme costings and that the level of quantified risk applied.

## Strategic Case

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- 3.9 The Strategic Case provides an overview of the **overarching strategy** for the RWRSU scheme in enhancing connectivity and accessibility by rail. It sets out how, alongside economic benefits, the scheme will also maximise social value in relation to affordability of travel, encouraging physical activity, reducing road accidents, improving security, enhancing local access and reducing community severance, and improving reliability and journey quality.
- 3.10 The **key problems** associated with the existing station are set out, relating to the areas of 'poor environment', 'security', 'poor access', 'mobility/access', 'fare evasion', 'comfort', and 'local congestion'. In addition, transport provision within adjacent Oxford Road corridor is described as over-capacity, with significant limitations in the opportunities to enhance road-based provision within this area that suffers from deprivation.
- 3.11 The **impact of not changing** is set out, with the inability to attract new rail users to the station due to the poor conditions and the wider implications for accessibility and connectivity.
- 3.12 The development of four specific **scheme objectives** to address the identified issues and opportunities is set out. It is further demonstrated that the scheme supports a number of the objectives of the TVB Strategic Economic Plan (SEP).
- 3.13 The **measures for success** are set out for each of the four scheme objectives with associated targets.
- 3.14 A high-level **scope** is set out identifying the aim to deliver an improved passenger experience and multi-modal interchange.
- 3.15 The FBC states there are limited **constraints** to the scheme as it will be delivered within highway land or land owned by RBC or Network Rail. The Oxford Road element of the scheme does not require any planning consent. It is still to be determined if the station entrance works can proceed under Network Rail permitted development rights. Pre-application discussions have commenced with RBC Planning Officers, but it is now understood that a final decision is unlikely until the detailed design (GRIP 3) process has been completed. This may not be until the end of May 2020.
- 3.16 If required, GWR would submit a planning application in the Summer of 2020. A standard 6-week period for planning consideration would enable the scheme to be approved by September 2020. Based upon the current construction programme for the internal station works, this should not introduce any specific delay to this element of work unless, as an example, there are any objections to the scheme.

- 3.17 The only **inter-dependency** of the scheme is stated to relate to the availability of LGF funding.
- 3.18 The key **stakeholders** responsible for delivering the project are highlighted, along with their partnership working to-date and their support for the scheme. Bus operators and the general public are also highlighted as important stakeholders.
- 3.19 Reference is included to a range of **options** that have been considered for the station enhancement and the fact that this scheme represents Phases 1 and 2 of a three-phase project. The supporting Masterplan document for the station has also been provided, alongside evidence within the Economic Case on the scheme optioneering process.
- 3.20 A section on **fit with policy** identifies a wide range of current and previous policy and strategy documents with which the scheme aligns, with details provided.

## Independent Assessor Comment

- 3.21 The Strategic Case demonstrates that there is a clear overarching business strategy for the scheme to address economic and social limitations associated with the current station facility.
- 3.22 The **problem identification** section provides a detailed assessment of the physical limitations of provision and how these translate into clear areas for improvement. The wider issues with transport capacity along the Oxford Road corridor are also set out, and the limitations for road-based solutions, providing a demonstration of how development will be constrained without additional rail capacity.
- 3.23 The **impact of not changing** section is, again, relatively detailed in describing the effects of not improving the station, highlighting a range of specific issues.
- 3.24 The process by which the **scheme objectives** have been established is considered to demonstrate the link with the issues and opportunities previously identified. The reference to how the scheme supports a number of objectives within the TVB SEP also demonstrates wider strategic alignment.
- 3.25 The **measures of success** provide four indicators and targets, with three related to new public transport trips, and one related to benefits for existing passengers through improved safety and accessibility.
- 3.26 The established **scope** is adequate, albeit relatively limited in detail.
- 3.27 No specific **constraints** are identified by the Applicant for the scheme; however, there may be some planning requirements in relation to the station entrance works. The Applicant considers these to be within the permitted development rights of the Train Operating Company/Network Rail, but it is understood that this has yet to be formally agreed with RBC Planning Officer.
- 3.28 There remains a risk that planning consent will be required for this element of the scheme and that this may not be determined until September 2020. As such, this represents a potential constraint for the project, albeit there are no specific reasons to anticipate that consent would not be granted. In the event of any objections to a planning application, it is considered likely that some delays to the overall programme may occur.
- 3.29 No **inter-dependencies** are identified, with the exception of the LGF funding. There are no other Network Rail schemes to take into consideration.
- 3.30 There is a clear description of the partnership working amongst the key **stakeholders**, with letters of support provided.

- 3.31 It is clear that a range of **options** have been considered and supporting evidence is provided demonstrating how the preferred option has been identified and why it is considered to represent the best value for money.
- 3.32 The alignment of the scheme to national, regional and local **policy objectives**, is clearly set out. This includes the promotion of public transport and active travel as alternatives to private car, as well as investing in transport to support housing delivery and regeneration.

## Economic Case

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- 3.33 The Economic Case sets out the overall value for money of the RWRSU scheme. It is supported by a more detailed description of the approach outlined within the Economic Appraisal Report (EAR).
- 3.34 The Economic Case provides an overview of the range of individual **scheme option** elements that were appraised as part of the Reading West Masterplan (which is also attached). The process of prioritising scheme options is also presented.
- 3.35 Reference is provided to the various elements of the DfT's Transport Analysis Guidance (TAG) that will be utilised within the **appraisal process** and the key assessment parameters are provided.
- 3.36 The limitations with some of the **current station demand data** are reiterated and an overview of the new data collection exercises that were carried out is provided, including:
- A survey of origin – destination of users of Reading West Station
  - Station Entry and Exit Counts of users of the station at each of the two access points
- 3.37 The interview sample size is presented, alongside a description of why it can be considered to be a representative sample.
- 3.38 An estimation of **base year (2019) station demand** is presented from the results of the entry and exit counts. These provide data for each station access (Tilehurst Road and Oxford Road) during five separate time periods of the day, encompassing 05:00 hours to 22:00 hours. Scheme opening year (2021) forecast demand is derived through application of the stated rail passenger growth factors.
- 3.39 The **impact of the proposed timetable change** on station demand is set out, following the rail industry standard Passenger Demand Forecasting Handbook (PDFH), resulting in an overall uplift in demand of equivalent to 2.5%.
- 3.40 Similarly, the **impact of the station facility upgrades** upon demand is also presented, resulting in a forecast uplift in demand of the equivalent of 8.88%. The combination of underlying rail passenger growth, growth from timetable changes, and growth from enhanced station facilities results in a forecast level of passenger demand at Reading West Station in 2021 that is over 28.5% higher than current 2019 levels.
- 3.41 **Scheme costs** are presented in relation to capital costs, station operating costs, and renewal/maintenance costs. The highways costs have been informed by trial holes, topographical surveys and utilities enquiries. The internal station costs have been developed by an experience and specialist rail cost consultant, under supervision from GWR. Capital costs include construction, land, preparation and supervisions, inflation, and a quantified risk allowance. The main risks are associated with the statutory undertakings. Optimism Bias of 9% is added to the total capital costs within the Economic Case.
- 3.42 **Operation costs** include staff costs, station maintenance costs, Network Rail costs, ticket machine and information screen costs. Renewal costs for ticket barriers and other equipment is also included.

- 3.43 **Scheme benefits** have been assessed in terms of:
- Rail fare revenue;
  - Retail revenue from kiosk;
  - Active Mode impacts (health benefits);
  - Station environment benefits;
  - Marginal External Costs (car drivers switching to rail); and
  - Environmental and Other Impacts.
- 3.44 A description is provided of the approach adopted to assessing each of these benefits.
- 3.45 The **economic appraisal** results are presented. The forecast present value of revenue generation exceeds the present value of capital and operating costs combined, in effect creating a negative scheme cost. The scheme also generates positive economic benefits for existing and new rail users (through enhanced station provision) and some limited wider non-user benefits.
- 3.46 Seven **sensitivity tests** are included, as follows:
- 1) Without the proposed ticket barriers
  - 2) With a higher level of demand abstracted from other stations (25% as opposed to 20%)
  - 3) Low growth assumptions
  - 4) High growth assumptions
  - 5) With 18% optimism bias (as opposed to 9%)
  - 6) Lower demand uplift (6.5%) and 20% abstraction
  - 7) Lower demand uplift (7%) and 30% abstraction
- 3.47 In four of the sensitivity scenarios (2, 3, 4, and 5), the net present value of costs and revenue is forecast to remain negative (i.e. revenue exceeds costs). For sensitivity scenarios 1 and 6, a benefit cost ratio of over 2 to 1 is achieved. For scenario 7 the benefit cost ratio is 1.7.
- 3.48 An **Appraisal Summary Table** is attached that sets out the wider assessment of impacts against all economic, environmental, and social criteria.
- 3.49 A discussion of **Value for Money** is presented in the context of negative PVC and positive PVB. Copies of the Transport Economic Efficiency, Public Accounts and Analysis of Monetised Costs and Benefits tables are all attached.

## Economic Appraisal Report

- 3.50 The Economic Appraisal Report (EAR) provides much the same information as the Economic Case, but with some additional detail, primarily around the survey work.
- 3.51 An overview of the **challenges and issues** of Reading West Station is provided, alongside how these translate into the **scheme objective**. A description of the proposed RWRSU scheme is then set out, with some wider context.
- 3.52 It details the **additional survey work** undertaken and then provides the detailed findings of the face-to-face interviews conducted with rail users at Reading West Station, including:

- Key origins of respondents;
  - Key destinations of respondents;
  - A profile of the time that respondents were interviewed, along with the typical time of their return journey;
  - Mode of travel used by respondents to access Reading West Station;
  - Trip purpose of respondents;
  - Frequency of trips by respondents; and
  - Ticket types used by respondents.
- 3.53 A summary of the **entry and exit count data** collected is presented, in detail, for each station entrance and compared to previous 2017 data for the station. This includes disaggregation by time of day (5am to 7am; 7 to 10am; 10am to 4pm; 4 to 7pm; 7 to 10pm).
- 3.54 The **modelling and appraisal methodology** is then presented, followed by the scheme costs, benefits and value for money assessment. This broadly replicates the information presented within the main Economic Case documentation, with some additional commentary, including reference to distributional analysis of impacts.

## Independent Assessor Comment

- 3.55 The Economic Case provides a detailed assessment of the potential economic impacts associated with the RWRSU scheme.
- 3.56 There is reasonable evidence that a thorough **scheme optioneering** process has been undertaken to identify the scheme elements that should be included within the overall package of measures. The process by which individual scheme options were prioritised, in part through the Station Masterplanning exercise, is also considered robust.
- 3.57 The **overall framework** for assessing costs and benefits, and the parameters and assumptions applied, are considered to be appropriate.
- 3.58 The **data collection exercise** undertaken to gain insight into station usage and passenger behaviours is considered robust, with good survey sample sizes achieved. This is considered to provide a strong basis upon which to assess the impacts of the scheme upon demand for travel and traveller behaviour.
- 3.59 The uplift in underlying **rail passenger demand** from 2019 survey data to the scheme opening year, 2021, is considered appropriate, as is the uplift in demand associated with the proposed increase in frequency of the Reading to Basingstoke rail service.
- 3.60 The **additional uplift in demand** associated with the station improvements applies appropriate industry-standard metrics from PDFH. The uplift of 8.88% is considered relatively significant but the Applicant reiterates the current poor condition of the station and provides wider evidence from other stations to support this level of uplift. We are satisfied that it is reasonable to include this uplift as a central case assumption but that sensitivity tests are required to test the impact of a lower level of uplift.
- 3.61 The **scheme costs** take into account upfront capital costs and on-going station operation costs, as well as infrastructure renewal. The assessment is considered to be a robust estimation of the full range of costs associated with the scheme. The levels of on-costs to the total construction costs appear relatively low, with preparation costs of 5.7% and supervision of 5.5%; however, the Applicant has indicated this reflects the level of detailed understanding of site conditions and scheme design.
- 3.62 Contingency of 25% has been added to the highway costs, and around 15% for station facilities. A further 12.5% quantified risk contingency is added for the station facilities onto

total costs, with 5% added for the highway works. Overall the level of contingency and risk appears appropriate for the scheme.

- 3.63 Given the level of site investigation works that has been undertaken to understand the risk, the 9% uplift for **optimism bias** is considered to be appropriate.
- 3.64 The approaches applied to assess the **benefits generated** by the scheme are generally all considered to follow both PDFH and DfT TAG procedures. The evidence for the assessment of kiosk income is limited, but we acknowledge the commercial sensitivities around these values, and the overall value is not overly significant.
- 3.65 The **rail fare revenue** represents the most significant benefit and has been estimated to be sufficiently high as to offset all of the forecast costs associated with the scheme. In effect, there is evidence that the scheme could be supported by the revenue generation itself, albeit that this revenue will be captured over a 60-year period and so there will be a significant revenue deficit in the initial years as a result of the upfront capital costs of the scheme.
- 3.66 The **active mode benefits** are based around a set of reasonable assumptions on the number of additional pedestrian and cyclist movements there will be to the station, as a result of the station improvements, and the distance they will travel.
- 3.67 The assessment of **non-user benefits** is also considered to follow standard approach, although the outputs themselves are relatively insignificant in comparison to the other benefits of the scheme.
- 3.68 The **station environment improvement benefits** are a key source of benefits for existing rail users and demonstrate that the enhanced station environment and improved safety and security deliver notable benefits to existing rail users.
- 3.69 The assessment of **environmental and social impacts** is relatively succinct, albeit some elements are already reported within the assessment of non-user benefits (noise, air quality, greenhouse gases, and accidents) or active mode benefits (physical activity). The scheme is anticipated to have a positive impact upon townscape, security, and access to services, all of which appear logical conclusions, albeit supported by limited evidence. Impacts upon landscape, heritage, biodiversity, water environment, affordability, severance and option values are considered to be neutral. Whilst no evidence is provided to support these conclusions, we consider them to be a reasonable likely outcome for a scheme such as this one.
- 3.70 The **economic appraisal results** for the core scenario demonstrate that the forecast present value of all benefits whilst significant (£5.193m) are considerably lower than the combined present value of capital and operating costs (£19.343m). Indeed, the combined benefits are only marginally higher than the present value of the scheme capital costs (£4.524m). The scheme is, therefore, heavily reliant upon the additional revenue generation to justify investment.
- 3.71 The **sensitivity tests** provide an opportunity to determine the potential variability in revenue generation and the impact this could have upon the overall case for investment. Under the low growth scenario or higher (25%) demand abstraction from nearby stations, the revenue generated is still in excess of the full capital and operating costs of the scheme.
- 3.72 In the event that the ticket barriers are not included within the scheme, then revenue is forecast to be 20% lower and would be less than the capital and operating costs associated with the scheme without ticket barriers. The benefit cost ratio in this instance would still be just over 2 to 1.
- 3.73 The PDFH guidance makes reference to some case study evidence at smaller stations where demand uplift from station enhancements equated to 7% but with 30 abstraction rate. Under this sensitivity test for Reading West, revenues are again forecast to fall by

20% but, since costs remain constant, the benefit cost ratio falls to 1.7 to 1. This indicates that the Reading West scheme does need to out perform previous case study schemes in relation to the uplift in demand and/or minimise the level of abstracted demand from nearby stations. In the case of the latter, this is considered to be relatively likely, given the absence of alternative nearby rail options, even with the delivery of the new Green Park Station to the south. On this basis, it is considered reasonably unlikely that a set of conditions will prevail whereby revenue generation from new passenger trips falls to a level where the benefit cost ratio would be under 2 to 1.

- 3.74 The **Appraisal Summary Table** provides an adequate summary of the appraisal undertaken across the Economy, Environmental, Social, and Public Accounts criteria.

## Financial Case

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- 3.75 The Financial Case provides in detail the estimated funding and cost profile and breakdown of the scheme.

- 3.76 A full **cost breakdown** of the scheme is provided in 2016 prices for the following two component parts of the scheme:

• Highway Works	=	£877, 011 (2016 prices)
• Station Facilities	=	£3,383,930 (2016 prices)

- 3.77 The breakdown provides details on preliminaries, general scheme costs, utilises, and electrification works. In addition, a contingency is added to the general costs, along with preparation and supervision costs. There are no land costs associated with the scheme.

- 3.78 Detailed breakdowns of individual cost element are provided within an appendix.

- 3.79 **Inflation** is added to the 2016 costs to bring them into line with the spend profile and further **quantified risk allowance** is added to the overall scheme costs.

- 3.80 A breakdown of funding sources:

• Local Growth Fund	=	£3,100,000
• Network Rail	=	£ 940,000
• Council Capital Programme	=	£ 200,000

## Independent Assessor Comment

- 3.81 The overall Financial Case provides sufficient information to give confidence in the broad estimate of the scheme costs in relation to each of the two scheme elements. Significant site investigation works have already been undertaken and concept designs are well-established. Cost have been produced by a suitably qualified quantity surveyors and cost consultants.

- 3.82 The RBC-led elements of the project are considered to be more developed than the internal station works. It is understood that the latter still requires detailed design (GRIP 3) process to be undertaken and that some significant risks remain that could affect the overall scheme costs.

- 3.83 The project is front-loaded with non-LGF expenditure, to instigate the station electrification works, as well as preliminary highway works.

- 3.84 The **total funding package** is marginally below the forecast outturn cost of the scheme, but it is understood that any cost overruns would be covered by RBC.



- 3.85 The combined level of **contingency and risk** applied to each of the two individual scheme elements is considered to be robust, representing around 15% of the final budget. This would appear to be a satisfactory level of contingency to cover most financial risks associated with the project, with the possible exception of congestion relief requirements within the station. The potential requirement for these additional works may not be known until May 2020.
- 3.86 Two separate Risk Registers are provided with the FBC for the Oxford Road works and the internal station works. The former can be considered a quantified risk register, whilst the latter assesses the scale of risks, without specifically identifying how the quantified risk value has been calculated. This would explain why the proportion of financial risk contingency added for the internal station works (12.6%) is significantly higher than for Oxford Road (4.9%), as there is clearly less certainty about the financial impacts of these risks.

## Commercial Case

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- 3.87 The Commercial Case provides evidence on the commercial viability and outlines the procurement strategy of the scheme.
- 3.88 An **outputs-based specification** is provided setting out the requirements of the scheme.

### *Oxford Road Works*

- 3.89 RBC will have responsibility for delivering the Oxford Road elements of the scheme. The scheme and associated works will be delivered through the Council's in-house team and utilising the Direct Labour Organisation. This team is already engaged on the project through site investigation works and it is stated it is of sufficient size and experience to deliver the highway elements of the scheme.
- 3.90 Individual **payment mechanisms** will be negotiated with providers/contractors for individual elements of the work, utilising NEC3 payment options.
- 3.91 **Risks** will generally be placed with individual providers/contractors, unless it is considered that the project sponsor has good experience of managing a specific risk, is best placed, or is the only entity capable of managing the risk.
- 3.92 **Contract lengths** would be 24-months to provide adequate time for construction completion. The design and delivery of **contracts will be managed** by RBC's Strategic Transport Projects Team.

### *Internal Station Works*

- 3.93 The station improvement elements of the project will be **procured** in accordance with SMS-1350-00 Procurement and Supplier Management Procedures. Consultants will be sourced from the Property Consultants Framework, via a tender or mini-competition process, with a clear focus on best value for money.
- 3.94 GWR have a sustainable **procurement strategy** and will ensure the process is fully compliant, accountable and auditable.
- 3.95 GWR will be responsible for all works within the station lease area and will be **governed** by the Governance for railway Investment Projects (GRIP) process. They will implement a Contract Management Strategy under this process.
- 3.96 A full assessment of **risks** encompassing: supplier; financial; process; supply chain; control; environmental; and social.
- 3.97 A full **Risk Management Plan** will be developed for the whole project encompassing workshops, reviews, and meetings. Identified risks will be added to a Risk Register.

## Independent Assessor Comment

- 3.98 The Commercial Case is relatively detailed but could elaborate on a few aspects to strengthen and provide reassurance.
- 3.99 The **outputs-based specification** provided is considered satisfactory.
- 3.100 **Procurement strategies** are set out for each separate element of the project (highways and station improvements). Supplementary information has been provided that identifies why the chosen procurement routes for both the Oxford Road and internal station works represents the most effective and efficient route to delivering each element of the scheme.
- 3.101 The approach to **establishing contracts** and **management procedures** is well set out and there is a clear approach to identifying, allocating, and managing risk during the procurement and delivery process.

## Management Case

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- 3.102 The Management Case presents information on how the proposal will be delivered and managed.
- 3.103 A short description of RBC's and GWR's **previous experience** delivering public transport and highway improvement projects is provided.
- 3.104 It is stated that it will be necessary to deliver the highway improvements on Oxford Road in advance of the station facility works, but otherwise no **project dependencies** are identified.
- 3.105 A description of the overall **governance** and project manager roles is provided.
- 3.106 A high-level **Project Plan** is attached, with a more detailed project programme to be developed and utilised as a 'live' document.
- 3.107 A short description of **project assurance** processes within RBC is provided, with key decisions referred to the Cabinet. The GWR Project Charter is outlined as the mechanism by which the internal station works will be delivered.
- 3.108 The approach to **communications and stakeholder** management is set out, with a clear process outlined and key stakeholders identified.
- 3.109 Programme and **reporting** protocols are outlined and the implementation of works streams set out, with key issues for implementation highlighted.
- 3.110 **Contract management** processes are outlined for each element of the project, with a standard NEC3-type format used for the highway works and a JCT-type contract for the internal station works.
- 3.111 Two initial **Risk Registers** have been prepared and are attached for the Oxford Road corridor works and the internal station works. It is stated that these will be updated on a regularly basis throughout the life of the project.
- 3.112 A **benefit realisation** plan will be developed that is aligned to the **monitoring and evaluation** plan. Key metrics will include outturn capital and operating costs, rail demand and revenue generation, and growth in station users, including cyclists. Data requirements for monitoring & evaluation are established.
- 3.113 **Contingency planning** arrangements are set out, with a specific focus around the risks relating to utilities diversion.

## Independent Assessor Comment

- 3.114 The examples of **previous experience** provide sufficient confidence that the two project teams tasked with delivering the individual parts of the project have the necessary experience. The overview of **project governance** is relatively succinct but provides a broad overview of the processes that will be employed.
- 3.115 The **project programme** provides evidence that an overall delivery plan is in place. The Oxford Road programme elements appear well advanced; however, the internal station works appears to have significant design and planning elements still to be instigated, yet alone completed. Upon further clarification, it is understood that the detailed design (GRIP 3) process may not be completed until May 2020. Furthermore, any planning requirement for this element of the project will also not be known until this point. Both these uncertainties could impact upon both the overall delivery programme, as well as potential scheme costs.
- 3.116 **Assurance** processes for RBC and GWR are set out, albeit at a relatively high level of detail. The proposed approach to **stakeholder engagement**, and the identification of key stakeholders, provides sufficient evidence of a robust communications plan.
- 3.117 The **reporting protocols, implementation of workstreams, key issues for implementation, and contract management** each provide evidence of how each element of the project will be managed.
- 3.118 The **Risk Registers** provide an initial assessment of the levels of risk associated with the delivery of the Oxford Road corridor and internal station element of the project, along with a set of proposed mitigation measures. Both are considered to be reasonably robust assessments, albeit that it indicates the levels of risk are much higher in relation to the internal station works.
- 3.119 There is a risk related to the potential need for planning consent for the station entrance works. At this stage, no planning application has been submitted, although a provisional process for securing planning consent for the internal station works is included within the programme. Further clarification has indicated that the need for planning consent may not be resolved until May 2020, and that any necessary planning consent may not be granted until September 2020. Whilst this may not specifically affect the delivery programme for the internal station works, it could mean that the Oxford Road works are scheduled to begin in advance of planning consent being granted for the internal station works. Furthermore, whilst there are no specific reasons why planning consent would not be granted, any potential objections to the scheme could delay the overall programme for delivery.
- 3.120 The risk register indicates that a ‘safety validation and pedestrian flow’ analysis is still required to determine whether or not there will be any congestion relief requirements within the station as a result of the scheme. It is implied that any such requirement could significantly increase the cost of the scheme, potentially making it unaffordable. This information may not be available until May 2020.
- 3.121 The risk register indicates that further structural analysis of the Tilehurst Road embankment is required to determine if further structural reinforcement is required. This could result in increased scheme costs, although it is understood that this is likely to be covered within the contingency allowance included within the budget. This information may not be available until May 2020.
- 3.122 Whilst the **Benefits Realisation Plan** has yet to be formalised, there is a clear **Monitoring and Evaluation Plan** that establishes key metrics and data requirements. No specific target metrics have been established, which we suggest are produced prior to the finalisation of the scheme.
- 3.123 The **contingency planning** focusses primarily around the issue of utility diversions, identified as the greatest risk. The process by which this is being managed is outlined.

## Summary and Conclusions

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### Summary

3.124 The review of the five cases has identified the following key points for consideration:

- The **Strategic Case** demonstrates the scheme aligns well to policy objectives and that it will address very specific needs for enhancing the condition of Reading West Station, which is currently very poor and suffers from anti-social behaviour. The scheme will address these issues and encourage greater rail patronage, increasing levels of sustainable travel within the wider transport corridor.

The Applicant has indicated the level of project constraints are limited, but a planning-related issue has been identified. Whilst the RBC-led works on Oxford Road do not require planning consent, there is a risk that the new station entrance will not be allowed under permitted development rights and so a planning application would be required. This may not be known until May 2020 and so any required application would not be submitted until Summer 2020 and may not be determined until September 2020. Whilst this may not specifically affect the overall programme, any objections during the planning process could incur delays.

- The overall **Economic Case** for the scheme appears strong with the likelihood that the scheme will deliver 'Very High' value for money from investment. This is primarily as a result of the additional rail patronage revenue that is forecast to be generated from new users of the Reading West Station, meaning that the scheme is forecast to generate higher revenues than total costs, over the 60-year appraisal period.

In terms of economic benefits, the scheme is only forecast to generate just over £5m in benefits against scheme capital costs of around £4.5m. As such, the scheme is only justifiable on the basis of the rail revenues that are generated and will be passed to Central Government through the franchising process.

A wide range of sensitivity test have been undertaken on the results of the economic assessment and, in all but one case, the value for money for the scheme is anticipated to remain, at worst, high. For the other test, assessing lower levels of new rail passenger demand, the benefit to cost ratio falls to 1.7 to 1, representing 'medium' value for money. It is considered relatively unlikely that this outcome would occur.

- The overall **Financial Case** provides sufficient information to give confidence in the broad estimate of the scheme costs, as well as a profile of spend. Some financial risks related to the final design of both the Oxford Road and internal station works elements of the project remain. There would appear to be a satisfactory level of contingency to cover most financial risks associated with the project, with the possible exception of congestion relief requirements within the station. The final scheme costs may not be known until May 2020 and it is not clear how any increases in costs that exceed the contingency allowances would be covered.
- The **Commercial Case** is relatively succinct but, in general, is considered to provide sufficient information to demonstrate that both the RBC-led and GWR-led elements of the scheme are being procured in an effective manner and will be subject to clear governance, assurance and management procedures.
- The **Management Case** provides a reasonable amount of detail to demonstrate the necessary governance and assurance processes are in place, and the project team has the necessary experience, to successfully deliver the project.

Whilst a detailed project programme is in place, there remain some uncertainties in relation to both the necessary design of some scheme elements, as well as planning requirements. This has the potential to impact upon both the overall delivery programme, as well as potential scheme costs.

## Conclusions

- 3.125 The Strategic Case demonstrates alignment with strategic priorities and the provides strong evidence of the current poor conditions at Reading West Station and the requirement for enhancement to promote sustainable travel.
- 3.126 The approach to assessing the economic benefits of the scheme is considered to be robust, but it is recognised that there is significant reliance upon the forecast level of revenue generated from new passengers to off-set the capital and operating costs of the scheme. If rail patronage levels were not to meet expectations, then the scheme may only achieve 'medium' value for money; however, this is considered to be relatively unlikely outcome.
- 3.127 The Financial Case is considered to be broadly sound, with a reasonable level of contingency and risk. However, the final scheme costs for the internal station works may not be known until May 2020, and there remains a risk that the overall scheme costs could exceed the total allocated budget. It is not clear how any potential need for additional funding would be covered, or if this would affect the overall scale of the project that would be delivered.
- 3.128 The Commercial Case is considered to be relatively succinct but there is sufficient evidence to conclude that the RBC-led and GWR-led elements of the scheme are to be procured in an effective manner.
- 3.129 The Management Case provides reasonable assurance that overall processes are in place to effectively oversee the delivery of the scheme. There are, however, some notable risks remaining in relation to the final scheme design and planning-related matters that could affect either the delivery programme and/or the overall cost of the scheme.
- 3.130 It is our conclusion that there appears to be a strong overarching case for investment in the scheme but that notable uncertainties remain in relation to the final detailed design and planning requirements. These issues are of particularly pertinence as they may not be resolved until May 2020.
- 3.131 To approve this scheme, we would recommend that a clear process is established by which to monitor and update these risks on a monthly basis, and that TVB LEP should retain the right to withhold funding unless completely satisfied that the full scheme will be completed, in its entirety (as specified within the FBC), by September 2021.



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