

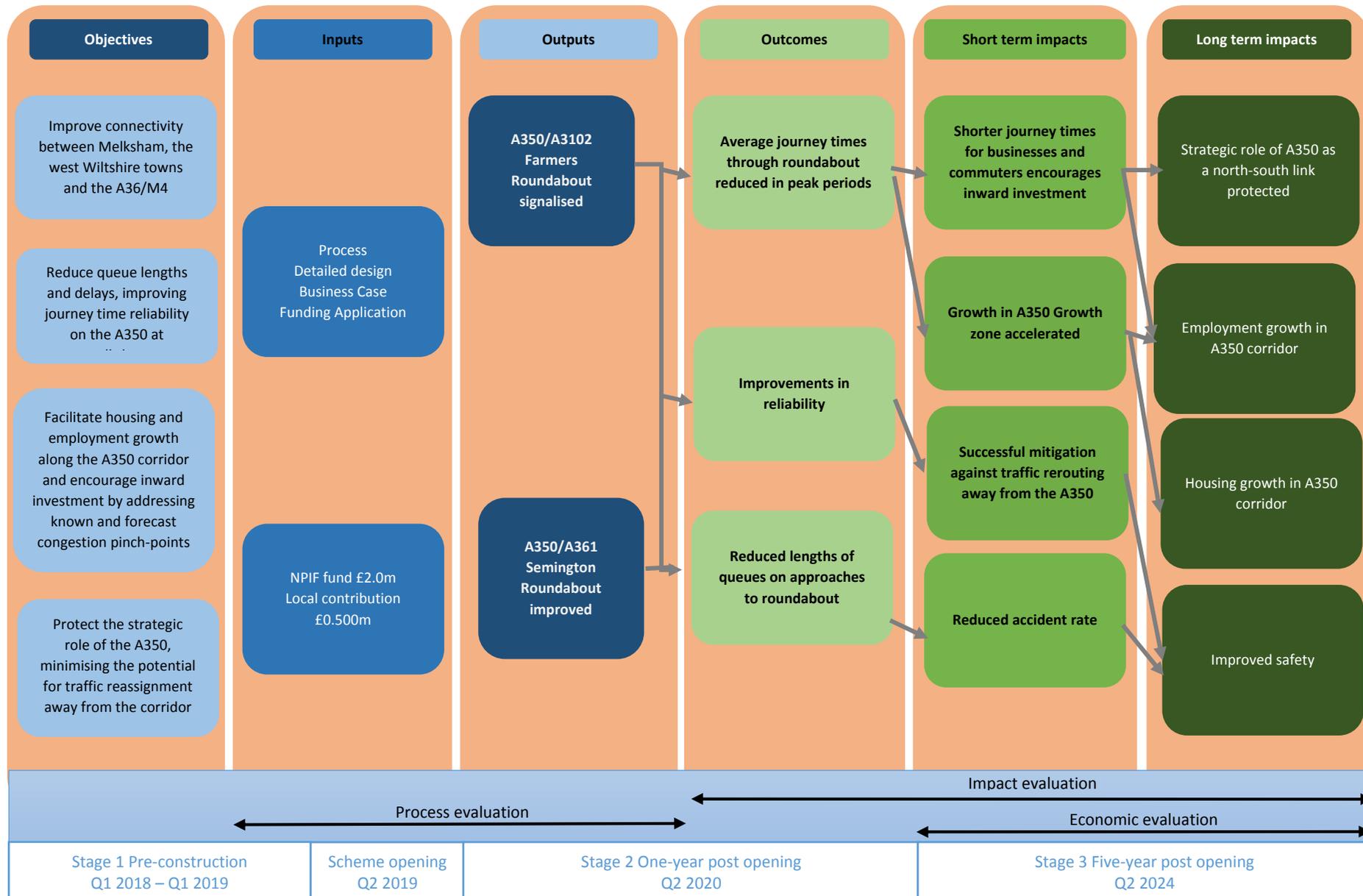
Appendix C2 – Monitoring & Evaluation Plan

- 1.1. Monitoring and evaluation of the scheme will occur 1 year and 5 years after it is implemented by Wiltshire. A budget of £10k should be established for the monitoring and evaluation of the scheme to take place. Specifically, monitoring journey times, journey time variability, and collisions experienced at the Farmers Roundabout (and Semington Roundabout).
- 1.2. A key element of the Monitoring and Evaluation plan is to map the intervention logic. This involves systematically linking key components of an intervention to produce a causal pathway (see Figure C2-1) across the:
 - Inputs (i.e. what is being invested in terms of resources and activities)
 - Outputs (e.g. new lane markings, roadway design, products developed etc.)
 - Outcomes (i.e. short and medium-term results, such as changes in traffic flow levels and safety improvements)
 - Impacts (i.e. long-term results such as better quality of life, improved health and environmental benefits)
- 1.3. Figure C2-1 sets out the intervention logic map for the scheme and shows linkages between key components of the intervention and the scheme objectives. The map shows the process by which the scheme outputs will deliver the primary objectives for intervention and describes an outline evaluation approach for monitoring the extent to which these are achieved as part of a pre and post-opening monitoring report.
- 1.4. The logic map also shows wider and longer term impacts, which depend on the delivery of the primary objectives

Evaluation objectives

- 1.5. The evaluation objectives are as follows:
 - (1) the efficiency of the scheme management and delivery process leads to
 - (2) whether outcomes have been achieved, which in turn provides
 - (3) the ability to demonstrate accountability for the initial investments.
- 1.6. Evaluation objectives have been set to show a clear flow reflecting the process, impact and economic elements of the evaluation.

Figure C2-1 Intervention Logic Map for Farmers Roundabout Scheme



Process evaluation: Efficiency of scheme delivery

- 1.7. The resources and finances used in delivering the scheme should be understood to gain an understanding of existing planning techniques and to provide lessons learned for use in future best practice.

Impact evaluation: Delivery of projected outcomes

- 1.8. The planning and processes used in defining an intervention from the outset, and their continual evolution throughout design, construction and implementation play a key factor in predicting outcomes. Understanding how the predicted outcomes match those which are delivered by the scheme is essential in providing lessons learned for future proposals

Economic evaluation: Accountability for investment

- 1.9. The outcomes of the scheme will enable Wiltshire to establish a revised assessment of the benefits of the scheme. Whether anticipated or not, do the benefits justify the investment made at the outset? How can the VfM forecasts be considered in the planning of future schemes?

Three-stage approach for Monitoring and Evaluation

- 1.10. It is important to establish how different scheme-specific objectives are realised over different timescales.
- 1.11. Some objectives will be realised immediately or shortly after the scheme opens; such short and medium term scheme effects are referred to as outcomes. Other objectives such as supporting economic growth and development are less direct and tangible effects of the scheme and are expected to take effect over a longer period; these longer-term effects are called impacts. Impacts can be more difficult to attribute directly to the scheme
- 1.12. For this reason, the Scheme Monitoring and Evaluation Plan will be undertaken in three distinct stages:
- Stage 1 - Pre-Construction Study
 - Stage 2 - One Year Post Opening Process Evaluation, Q2 2020
 - Stage 3 - Five Year Post Opening Impact Evaluation Study, Q2 2024

Process evaluation

- 1.13. The Process Evaluation will be undertaken as the construction nears completion through to the Stage 2 One Year Post Opening Process Evaluation.
- 1.14. The aim of the process evaluation is to identify factors influencing the extent to which objectives have been achieved, identify and investigate unintended outcomes, and identify lessons learned.
- 1.15. The process evaluation will extend beyond a desk-based study and will involve interviews with key project officers and a process review workshop with key parties (e.g. WCC, and stakeholders). This will include assessment of:
- Programme management, success factors and key obstacles to delivering the scheme. Provide details of project plan assessment, delivery at key milestones, etc. This will help identify good practice in this area, which can be shared in the future

- A review of evidence collated through WCC's project management and governance procedures
- Consultation with key stakeholders to garner a range of views of the operation and success of the scheme
- The evolution of the risk register and the effectiveness of the risk management strategy e.g. safety during construction, delays to transport users, impacts on local business during construction
- If and how the context and rationale behind the scheme has changed
- Identify any changes to the delivered scheme from the planned scheme and the reasons behind any changes. This can be used to identify good practice
- Assess how well scheme objectives are being realised at this stage
- All costs involved in the management, construction and delivery of the scheme compared to the forecast costs including an assessment of risk and optimism bias in pricing

Impact evaluation

- 1.16. The evaluation of impacts will be undertaken using a standard knowledge-based theory of change approach, and designed so that the unique contribution of the Farmers Roundabout scheme can be established, and so that the approaches and methods are commensurate with the scheme's scale. This approach has been adopted as it will allow:
- The evaluation of specific interventions
 - The ability to derive causal based effects of the interventions
 - An opportunity for continual forecasting of impacts
- 1.17. Stage 1 (Pre-construction) involves the collation of baseline information which can be used in the evaluation of impacts in the later stages.
- 1.18. Collating electronic copies of all reports, documents, data and models relating to the scheme appraisal that will be required to establish baseline conditions and forecast impacts in terms of accidents, traffic volumes and journey times.
- 1.19. In Stages 2 and 3 the impact evaluation will be updated through the following steps:
- Request and process personal injury accident data for period beginning five years prior to the start of construction and finishing five years after opening. Compare accident and casualty numbers allowing for a robust assessment of safety impacts.
 - Comparison of traffic flows on roads using data collected during the scheme modelling in 2017 and post opening surveys.
 - Comparison of journey times and variability using existing Trafficmaster GPS data, provided by the DfT for LTP congestion monitoring purposes
 - Compare Stage 1 baseline data to post opening data to determine scheme impacts
 - An evaluation of the scheme in terms of the outturn impacts on economic development and growth (Stage 3 only)
 - Obtain and analyse local socio-economic and economic metrics such as employment data and housing volumes to establish any correlation between the delivery of the scheme and improvements in local economic conditions (Stage 3 only).

Economic evaluation

- 1.20. After completion of the Stage 3 monitoring and impact evaluation, an economic evaluation will be undertaken to assess the accountability of the investment into the scheme through answering the following questions.
- How do the realised benefits, and therefore, VfM correspond with those assumptions derived from the scheme appraisal?
 - Have any unexpected benefits occurred or have other predicted benefits not materialised?
 - Are on-going benefits expected to change?
- 1.21. The actual outturn costs and movement data will be used to generate a new BCR to understand the Value for Money provided. This will be compared back to that generated within the original Business Case.