

Agenda Item No: 2.1 – Appendix 1

1. Purpose

The Technical Note is produced to demonstrate the strategic and value for money case for completing the procurement of land and detailed design of the three projects located at the Broad End Road Junction, A47/Elm High Road Roundabout, and the Elm High Road/ Weasenham Lane Junction.

On 19 July 2021 a change control was presented at the Business Board reducing the scope of the project by removing the construction phase and focusing on completing the land purchase and detailed design. By doing so, this would enable the project to complete the current stage and become a pipeline project should funding become available in the future.

The change control was submitted by Cambridgeshire County Council as the total project forecast of £19.5m was exceeding the available budget of £10.5m. The change control was rejected by the Business Board as the project would no longer meet the Local Growth Fund criteria, which was discussed at the July Combined Authority Board meeting.

It was agreed, at the July Combined Authority Board meeting, that the Wisbech Access Strategy project would seek approval, via the production of a business case, to drawdown the £1.88m required to complete the procurement of land and detailed design from the Combined Authority's subject to approval funding in the Medium-Term Financial Plan.

2. Strategic Case

The Strategic Case demonstrates a high level of strategic fit, linked to the delivery of ambitious growth targets set out in the Fenland Local Plan (2014), the Cambridgeshire Local Transport Plan and the Combined Authority Growth Ambition Statement. With an identified housing allocation of 3,550 in and around Wisbech and 30 hectares of employment land (equating to approximately 2,500 new jobs), the Wisbech Area Transport Study was undertaken and identified a number of locations where the existing road network would be pressured. These schemes have been explored further in the Wisbech Access Study (WAS), involving the development of preferred schemes and the grouping of these into a number of potential delivery packages. Addressing access to the identified development sites and to make improvements to the existing highway network.

The first phase of the Wisbech Access Strategy contained 5 projects, later reduced to three, that aimed to deliver improved capacity, tackling existing congestion and enabling growth. The highway projects would provide additional lanes to A47/Elm High Road Roundabout, installing a roundabout at the Broad End Road Junction on the A47, and introducing a roundabout at the Elm High Road/Weasenham Lane Junction.

The need to achieve the outcomes of the short-term delivery package was considered in reducing the Phase 1 package into the three schemes comprising Elm High Road/A47, Elm High Road/Weasenham Lane and Broadend Road/A47. It is considered that these three schemes will still meet the needs of future traffic growth and developments whilst reducing current congestion. Reducing the package further

would restrict the benefits provided and in the instance of the Elm High Road schemes, if only one were developed then the undeveloped junction would generate queuing that will impact upon the operation of the developed junction. If only Broadend Road were developed, then current congestion sites would not be addressed and only one current development site would gain improved access.

2.1 Strategic fit

Driver for change

The population in Fenland has grown at four times the national average with the 2011 Census indicates that Fenland has a population of 95,300 (a 2020 population growth estimate puts this up to 102,080) up from 75,500 in 1991 and has continued to grow rapidly since. Along with this, Fenland has been identified as Cambridgeshire's most deprived district (ranking as 80th most deprived authority out of 317 nationally), with the Wisbech lower-layer Super Output Area being within the 10% most relatively deprived nationally, along with 3 other areas within Fenland.

Growth in employment in Fenland has not matched workforce expansion and outward commuting is increasing and accounts for half of the employed population. To meet the needs of the growing workforce, Fenland requires growth in employment land and business opportunities. To achieve this, infrastructure needs to be improved to retain and attract employers as a SWOT analysis identifies poor accessibility of jobs by public transport and high levels of congestion impacting upon business productivity.

Business need

Wisbech has been identified as a strategic site for development by 2031 in both the Cambridgeshire & Peterborough Strategic Spatial Framework and the CPCA Housing Strategy. To support this there is an identified need to encourage housing development in the area and the improvements proposed will open up identified development sites proposed in the Fenland Local Plan (2014)

Consideration of these long-term plans, as well as the shorter-term growth within the Local Plan means that:

- There will be short-term requirements for infrastructure improvements, requiring that some elements identified through the Wisbech Access Study be implemented quickly, justified on the grounds of transport user benefits and some element of dependent development/regeneration.
- Some larger elements, whilst they may be strictly required to support the immediate growth plans, can be considered as enablers for the longer-term plans.

CPCA Strategic Priorities and Growth Ambition Statement

The CPCA Growth Ambition Statement commits to doubling the Gross Value Added (GVA) over a 25-year period and identifies that not enough homes have been built in the past which has led to them becoming progressively less affordable.

In its discussion on transport the Growth Ambition Statement states:

“The Combined Authority’s identified key transport priorities reflect a commitment to improve connectivity both East to West and North to South, to reduce commuting times in line with a journey to work target of 30 minutes, and to support future development, for example in Wisbech, at Alconbury and on the Cambridge Biomedical Campus”.

Whilst also linking transport and spatial planning in order to ensure that homes are not built until transport infrastructure is in place and that homes and jobs are linked. The Wisbech Access Strategy considers the broad locations for growth and strategic allocations within Wisbech identified in the Fenland Local Plan and the traffic generated by each, to identify key sites for improvement. This includes those sites

that will require additional capacity or safety improvements to allow for both the predicted future traffic growth on existing flows as well as the traffic generated by each site and the impacts this will have on the network.

Consideration of a 'do nothing' scenario

In a do-nothing scenario the targets set in the Growth Ambition Statement would not be met for the area and the development sites identified in Fenlands Local plan would not be realised in a connected way with transport planning and infrastructure improvement meaning that both housing and business growth in the area would be stunted.

Traffic growth in the area would also continue at current predicted growth rates with development of growth areas less connected to network wide infrastructure improvement which would exacerbate problems at existing pinch points on the network in the area leading to increased congestion at peak periods.

Congestion in the area will also have an impact upon health due to the increased release of NOx and greenhouse gasses associated with queueing traffic leading to a potential increase in disparity of the health of Wisbech residents in comparison to the national average.

Interdependences/linkages to other programmes, or projects that may exist.

Building on work in 2012, a new "Big Idea" emerged in 2016; a proposal for a "Wisbech Garden Town". This could bring 12,000 - 20,000 new homes to the area together with better transport links, jobs and improved education and skills training for local people.

The Fenland Garden Town concept is incorporated within the plans for the Cambridgeshire and Peterborough Combined Authority. Whilst this does not signal any actual commitment, it clearly provides a key element of the long-term strategic case in relation to the Wisbech Access Study.

Alongside the local improvements which are within the scope of the project, a number of potential wider connectivity improvements have also been identified, including further duelling of A47, a rail link via March to Cambridge and improvements to Ely North Rail Junction. These are outside of the scope of this project.

2.2 Project outcomes and project deliverables (outputs)

Project Deliverables

Updated construction forecasts that reflect the current scheme designs and market rates shows that to deliver the three schemes would exceed the available budget.

For the project to continue, the project team identified that either the scope of the project is reduced to meet the available funding, or that additional funding be sought to enable delivery of all three schemes.

Following options review a preferred option was identified resulting in a change control being submitted which sought to reduce the scope of the project from design and construction to completing Detailed Design for all three projects and conclude the procurement of required land.

Key deliverables:

- A full Business Case will be completed for all three projects
- All detailed design completed for all three projects, including relevant approvals from third parties
- Procurement of land required for all three projects

Achieving the key deliverables ensures that the project becomes a pipeline project should future funding become available.

Scheme Outcomes for Short-Term Delivery Package

Whilst the current proposal is to complete the land procurement and detailed design, if constructed, the three sites of the Wisbech Access Strategy Phase 1 are expected to achieve the following objectives.

Primary Objectives:

- Reduce current congestion; and
- Provide adequate local network performance to meet the needs of future growth and traffic generated by new developments from the 2026 projections in the Local Plan

Secondary Objectives:

- Ensure that the performance of the A47 and other strategic routes is not adversely affected by the scheme.
- Support Wisbech growth plans in the short term and in terms of foundations for the longer-term.
- Ensure that significant local road safety, air quality and noise impacts are not caused by the scheme.
- Ensure that pedestrian, cycling and public transport facilities consistent with sound design and Fenland District Council plans are included within the scheme.

3. BCR

The Proposal is to complete the detailed design and land procurement to provide a shovel ready package of schemes which can be put forward for future funding bids, mitigating abortive costs for design work already completed and land negotiations which are either in process or nearing completion.

Costs

Milestone prepared updated construction costs estimates for all three schemes in June 2021 to reflect the completed design on the Weasenham Lane/Elm High Road scheme, the near completed design of the Elm High Road/A47 scheme and a cost estimate based upon outline design of the Broadend Road scheme. These were included into the project forecasts which identified a forecast outturn of £19.5m.

Funding for the scheme to complete design and delivery was originally provided through a £10.5m BEIS grant, which was then amended in the change control of July 2020 to reduce the BEIS funding and provide a top up from CPCA Medium Term Financial Plan. The BEIS funding was provided with a condition that spend would be undertaken by the end of March 2021, which has now been exceeded.

The council has brought in specialist commercial resource to review scheme cost estimates and assist in valuation of risks. As part of the project financial update undertaken, this specialist resource has been utilised to interrogate the construction estimates provided by Milestone and will undertake this task during the financial updates for the final business case.

In identifying options to take forward, the finalisation of design and land purchase have been separated out identifying that these elements of work would require an additional £1.88m to complete broken down into the following:

Area	Forecast Remaining
Design	£0.630m
Supervision	£0.301m
Land	£0.952m
TOTAL	£1.883m

Summary of costs (July 2021 Change Control to the Business Board)

Area	Summary Cost
Spend to Date Design	£1,276,188
Spend to Date Supervision	£688,802
Spend to Date Land and Legal	£123,806
Spend to date Utilities (recoverable)	£975,609
Sub-total Spend to date (excluding recoverable utility costs)	£2,088,796
Forecast remaining spend (end of stage)	£1,883,087
Total	£3,971,883

Traffic Modelling

The initial traffic modelling for the scheme considered the impacts of all 5 schemes upon the highway network, including the access into the Weasenham Lane industrial

area generated through the Cromwell Road/ Newbridge Lane junction signalisation and the provision of the Southern Access Road which have been removed from the current package of works through the change control accepted in July 2020.

The current modelling has been updated to reflect the removal of these two schemes and the impacts that this will have on the remaining schemes on the network. Traffic modelling for the schemes indicates that, due to the proximity of the two schemes on the Elm High road (Weasenham Lane/Elm High Road and Elm High Road/A47), the schemes would have an impact upon each other. If only one of the schemes were delivered then the queues predicted from the model of the unmodified junction in future years would quickly stretch back through the other junction, completely gridlocking that part of the network. Therefore, in considering the delivery of the schemes, these two schemes should be considered as being required to be delivered together.

The Broadend Road scheme can operate independently of the other schemes as this site does not impact traffic flows on either of the other two schemes in the package, neither do the other two schemes have an impact upon the traffic flows at the Broadend Road location.

Benefit Cost Ratio

As part of the process in developing the preferred option that was put forward in the change control, various options for construction packages were explored, including the delivery of all three schemes through to delivering only one scheme. Upon completion of design each of these options will still be available to take forward based upon the levels of funding available or other factors which may restrict the scheme options delivered. The options work undertaken provided a range of BCR's from 5.7 down to 1.2 as indicated along with the schemes being delivered in the table below.

Scheme	Ref	Package 10 (New costs)	Package 11	Package 12	Package 13	Package 14	Package 15	Package 16
		Short Term (F1)	Short Term (F1)	Short Term (F1)	Short Term (F1)	Short Term (F1)	Short Term (F1)	Short Term (F1)
Southern Access Road	SAR1	Removed from package in July 2020						
Cromwell Road / New Bridge Lane Junction	GR2	Removed from package in July 2020						
Elm High Road / Weasenham Lane	EH7b	X	X	X		X		
Elm High Road / A47	EH1	X	X		X			X
Broad End Road	BER2	X		X	X		X	

Medium Term Schemes	All							
Long Term Schemes	All							
PVB		24,873	29,474	21,173	10,273	28,217	8,790	18,698
PVC		12,933	8,492	9,191	8,463	4,908	4,508	3,873
BCR		1.9	3.4	2.3	1.2	5.7	2.0	4.8

The BCR values used above are the short term BCR values that do not consider the delivery of future phases of the Wisbech Access Strategy.

The assumptions used in preparing the BCR's are as follows:

- Cost year – 2021
- Design, Land and Legal costs incurred in 2021 (Jul – Dec)
- Construction in 2022 (closest to original assessment), with year of opening in 2023.
- 3% Optimism Bias applied (Stage 3: Detailed Design & FBC)
- Costs for medium and long term schemes remain the same as in previous assessments
- All other assumptions remain as in the previous assessment.

The Traffic models and forecasts used in calculating the BCR's have included the following:

- Specific developments and schemes.
- Land-use data including committed and potential household and employment developments.
- Network scheme data including committed and potential highway and public transport schemes.

It is noted that the above BCR's, where the package includes the Broad End Road/A47 scheme, an estimate of construction costs has been made as the detailed design is not completed.

As part of concluding the detailed design an update to the business case will be prepared, this will include updating the BCR values to reflect the completed detailed design and the associated construction cost estimates for the schemes.

4. Programme

The project team are currently undertaking the detailed design of the three Wisbech Access Projects. Progress on the Elm High Road/Weasenham Lane junction and the Elm High Road/A47 junction has gone well and is nearing completion. The Broadend Road/A47 junction is in the detailed design phase, having resolved complicated land issues. Design of all three projects is programmed to be completed by October 21 followed by Highways England/Norfolk County Council approval process and the road safety audit process, allowing final designs completed by December 2021.

During this period until December 2021 all remaining land negotiations will be finalised putting the project in a shovel ready state.

Liaison will continue with Statutory Undertaker’s diversion works, although not physical works will be undertaken.

Summary of the programme dates are:

Activity	Start	End
Completion of Detailed Design for all three projects	Underway	October 2021
Approve road safety Audit and Highways England Approvals, Complete Milestone Gateway Procedure	November 2021	December 2021
Liaison with statutory undertakers	Underway	December 2021
Complete Land Agreements	Underway	December 2021
Completion of Full Business Case	Underway	April 2022

5. Key Risks

Technical Approval of Designs

Programme reliance on third party entities, for instance, timely approval of designs by Highways England. To mitigate this risk the Project Team are working closely with Highways England, ensuring resources are available when required.

Land & Legal

Engagement has been undertaken with all affected landowners to date, and this is programmed to be concluded during 2021. No new landowners have been identified as being affected by the scheme or redesign. However, completion of land purchase within 2021 remains subject to agreeing reasonable terms and completion with third party legal representatives.

COVID

Resource risks associated with a new peak of COVID in 2021.

Cost Estimates

The BCR's referred to are based upon cost estimates for construction and not on contractual target costs, future target costs will be based upon current market rates at the time and will therefore be subject to market pressures at that time including, but not limited to, inflationary, Brexit, the pandemic, government infrastructure and a buoyant housing market appear to be increasing pressure on resources.

Additional costs

The finalisation of the design will include items which may have a limited life such as Highways England approvals which have a limited duration due to the need to keep up to date with new design standards. If the construction of the schemes is delayed, then additional cost may therefore be incurred in having to re-obtain these approvals and reviewing the design against current design standards and practices. Such other activities include but are not limited to refreshing ecology surveys to understand if any protected species have moved into the area and re-engagement with utility providers to update utility diversion designs and cost estimates.

6. Recommendation

The project is currently mid-process in finalising the detailed design of the individual schemes and in negotiations to secure the land required to implement the individual schemes. If the project were placed on hold the costs incurred to develop the design to date would be abortive along with the costs for negotiating with landowners. In addition to the abortive costs, good will could potentially be lost with landowners making future negotiations more difficult and costly.

To avoid abortive costs it is recommended that the scheme is funded to allow for the completion of detailed design and completion of land purchase, to leave a shovel ready scheme awaiting future funding opportunities.

Once acquired, the land required for each of the schemes will be subject to the terms of the negotiated sale. Where required for safety purposes the land will be managed as part of the highway to ensure the safe passage of vehicles and pedestrians.