

EDT Committee

Item No.

Report title:	Norwich Western Link update
Date of meeting:	20 October 2017
Responsible Chief Officer:	Tom McCabe – Executive Director, Community and Environmental Services
Strategic impact The County Council, at its meeting in December 2016, agreed a motion setting out that the ‘Council recognises the vital importance of improving our transport infrastructure and that this will help to deliver the new jobs and economic growth that is needed in the years ahead.’ In addition the motion set out that the ‘Council also recognises the importance of giving a clear message of its infrastructure priorities to the government and its agencies, and so ensure that there is universal recognition of their importance to the people of Norfolk.’ Three projects were identified as priorities for the coming years and the Norwich Western Link is one of these.	

Executive summary

This report sets out an update on the progress to date for the Norwich Western Link (NWL) project and the work undertaken since 2016.

There are a number of factors that have been and will continue to be considered as the project moves forwards. These include the opening of the NDR, the A47 dual carriageway proposal between Easton and North Tuddenham, the development of the Food Enterprise Zone (FEZ) at Easton, and the Local Plan Review.

Engagement has been ongoing with the communities in the Norwich Western Quadrant to seek their views and opinions on a NWL. This has provided positive feedback regarding their general concerns, particularly taking account of the wider changes that are emerging (NDR, A47 dualling, FEZ, etc). In these meetings a range of high-level and specific objectives have been discussed.

Modelling work has been completed to provide an indicative assessment of a possible dual or single carriageway NWL. This work has been based on an assumed alignment (which should not be taken to be a preferred solution). The economic appraisal of the options, assuming an indicative dual carriageway over large bridge structures to cross the Wensum Valley, provide a high value for money (vfm) rating (using Department for Transport guidance). A tunnel solution has also been assessed, but was found to provide low vfm. It is important to note that these outputs are based on initial appraisal work to assist decision making as to whether or not to continue with a NWL project.

Based on the indicative structures used for the work to date, feedback from the statutory environmental bodies has helped to further establish the possibility of a NWL. There are still a number of factors identified that the project will need to take into account.

If agreed by Committee, this report sets out the next steps in developing the NWL project further, including the range of further scheme development, technical and environmental work and consultation to be completed during 2018. This will move the project towards a decision on the options for a preferred route/solution for Committee to consider.

Recommendations:

- 1. Members are asked to note and comment on the progress of the project.**
- 2. Members are asked to agree whether to continue the project, with funding provided for the next stages of the project for a further year to the end of 2018, as set out in section 3 of this report.**

3. **Members are asked to agree the scope of further work to the end of 2018 as set out in Appendix B. The funding of this work would come from a bid to the Pooled Business Rates fund, with match funding allocated from the remaining A47 reserve budget.**
4. **If the Pooled Business Rate funding is not confirmed, Members are asked to delegate authority to consider alternative funding strategies to the Executive Director of Community and Environmental Services in consultation with the Chair/Vice Chair of EDT and Executive Director of Finance and Commercial Services, or to a review of the delivery timescales of the project to align with the available budget.**

1. Proposal

1.1. Norwich Western Link

A report was presented to EDT Committee in July 2016 setting out initial work to assess options and next steps for the project.

- 1.2. The report outlined a range of work to be completed during the remainder of 2016 and first half of 2017 to further develop the case for the Western Link. It suggested providing a review having completed this before further work is progressed – this latest Committee report provides that review and discusses implications of other factors that will impact the project.

- 1.3. The latest technical report from WSP (formerly Mouchel) is available here: <https://www.norfolk.gov.uk/-/media/norfolk/downloads/roads-and-transport/roads/norwich-western-link-technical-report-october-2017.pdf>

The report set out the range of work completed since the last committee report in 2016.

2. Project Progress

- 2.1. A Member working Group has been overseeing the work being undertaken and has reported to Committee on a regular basis. The key project activities being delivered by WSP have been discussed, as well as other project details including the A47 dual carriageway proposals between Easton and North Tuddenham and the Local Development Order for the proposed Food Hub at Easton.

2.2. A47DualCarriagewayproposals(EastontoNorthTuddenham)

Highways England (HE) has recently (14 August) made their preferred route announcements for this project. The alignment broadly follows the existing A47 single carriageway alignment, but moves the road slightly north as it passes Honingham and slightly south as it passes Hockering, crossing the old A47 at a point between Sandy Lane and Wood Lane. This alignment has the potential advantage of retaining much of the existing local road network, which should therefore minimise the impact of the project during construction. At this time the junction strategy has not been provided and this is to be developed as part of the detailed design work which will be consulted during 2018. More details can be seen via this [link](#).

- 2.3. It is therefore still unclear what impact the A47 dual carriageway project will have on the Western Link, however it is becoming more defined and the preferred route alignment does retain the connectivity due to its location on the north side of the existing A47 between Easton and Honingham. Further work by HE is ongoing to develop the junction strategy and this will also provide further key information for the Western Link project. It is clearly significant, and NCC will

continue to work closely with HE as these details are developed.

2.4. **FoodEnterpriseZone**

Broadland District Council (BDC) has progressed a Local Development Order to help facilitate a Food Enterprise Zone (FEZ). The FEZ is located to the west of Easton village and just south of the existing A47. FEZ's are a government initiative introduced by the Dept for Food, Environment and Rural Affairs (DEFRA), with the aim to:

- Enhance rural development through the growth of food businesses in a particular location, be it producers, processors, retailers and/or manufacturers.
- Encourage greater collaboration between food and farming businesses, and even encourage links to research and education institutions, in order to develop the domestic food and farming sector.
- Allow local decision making, particularly for planning and development.
- Attract inward investment.

2.5. The LDO is being progressed to provide planning permission and allow greater flexibility for new business-related development to locate within the site. The proposed LDO was considered at BDC's Cabinet meeting on 23 May 2017, where it was agreed to be adopted subject to the outcome of a Screening Direction from the Secretary of State and a Section 106 obligation. At the time of writing this report, the LDO was still to be confirmed, however it is understood that this is now close following resolution of the Screening Direction process.

2.6. **NorwichWesternLink**

Since the last report to Committee in July 2016, WSP have reviewed available evidence, engaged with local Parish Councils and met with statutory environmental bodies to consider:

- The need for transport intervention in the western quadrant of Norwich;
- The case for a Western Link, including a review of previously identified issues and objectives;
- Local considerations that could influence the project including the NDR and associated mitigation measures, Highways England's plans to dual the A47 between Easton and North Tuddenham, environmental designations and the development of Local Plan;
- The possible options to progress; and
- How any assessment could be taken forward.

2.7. The WSP technical report sets out a range of work completed to assess the case for a Western Link project. Details are summarised and discussed below.

2.8. **Requirements for an intervention**

The delivery of the NDR will significantly change the way the existing road network is used. It is currently in construction and a key test of the need for an intervention such as the Western Link will be, in part, dependent on what happens to traffic movements once the NDR is opened. Feedback from communities within the western quadrant is that they are concerned about the impact of the NDR and that it will make their existing problems and quality of life worse. A Western Link is seen as an important intervention to remove these concerns. It is an important point to note however that the impact of the NDR will need to be based on actual monitored data, which will not be available until after a period of traffic redistribution following the opening of the new road.

In addition, as discussed above, since the approval of the NDR and its construction, we have seen the confirmation of significant improvements to the A47, notably the dualling of the section from Easton to North Tuddenham.

Further, also since the NDR confirmation, the delivery of a Local Development

Order to enable the construction of a Food Enterprise Zone just west of Easton is expected.

The early stages of the Local Plan Review process has also started and this will consider the likely options for housing and employment growth beyond the current plan period, to 2036.

2.9. Project objectives

A range of objectives have been developed to align with the current strategic objectives presented in national, regional, and local policy and associated guidance. It is considered that the objectives reflect the issues and opportunities identified within the WSP reports, in addition to the wider objectives of the New Anglia Local Enterprise Partnership, supporting the principal aim to deliver a modern and efficient transport system.

The following high-level objectives have therefore been discussed with the local communities:

- Support sustainable housing growth in the western quadrant
- Improve the quality of life for local communities
- Support economic growth
- Protect and enhance the natural environment
- Improve strategic connectivity with the national road network

In addition, a range of specific objectives have been developed and discussed at meetings with the local communities. These will also continue to develop, but they provide a further basis for assessing the project options and alternatives.

2.10. Ultimately any scheme will need to be developed to achieve these objectives, and contribute to the desired outcomes. Clearly at this stage, the final definition of scheme objectives and outcomes would still be subject to extensive stakeholder and public consultation. This further engagement would also need to establish support for the scheme. Subject to the scheme continuing to be developed, the scheme that is best able to deliver the objectives and give high value for money should be pursued.

2.11. Modelling assumptions

In order to complete a high level evaluation of a possible NWL and its impact on the road network in the western quadrant, the previous NATS model has been used. The model and the input data is now dated (with much of it based on 2012), and the network in the western quadrant area was previously not as detailed as needed to assess the NWL. In view of this the model has been enhanced in the Norwich Western Quadrant to enable more robust outputs from this latest work. However, it should be noted that there will still be a need to complete a more comprehensive update to the model for the project should it continue to further stages of development.

2.12. The modelled data has also used assumptions based on previous details for the NDR project. This will need to be updated following the completion of the NDR based on actual surveyed traffic movements. These surveys can only be completed after a period of traffic redistribution following the opening of the NDR.

2.13. The advent of the construction of the NDR, the (now) preferred route status for the A47 dual carriageway between Easton and North Tuddenham, and the emergence of the Easton Food Enterprise Zone Local Development Order have all had an input to the assumptions made for the project and the high level modelling completed and referred to in this report. The model outputs, for example, have assumed a dual carriageway has been completed for the A47.

Modelled scenarios

The modelling has considered various scenarios for the following future years

and the scenarios tested include planned housing growth, the FEZ and additional future housing growth from the emerging Local Plan.

For these different future years the following options were considered:

- No western link but A47 dualling
- Dual carriageway western link (with A47 dualling)
- Single carriageway western link (with A47 dualling)

Modelling outcomes

In summary, with no western link, the modelling has shown that with the increase in demand for travel, over time there is likely to be a significant decrease in network performance, with greater increases in queueing and delay caused by overcapacity junctions. This shows the highway network provides insufficient capacity to accommodate the potential level of growth without other interventions.

With all the western link options tested there is a decrease in queueing and delay and overcapacity at junctions, with the dual carriageway option for the NWL providing the greatest relief.

2.14. Assumed engineering solutions

In order to provide the basis for testing the viability of a NWL, some broad assumptions have been necessary. Firstly, a notional route alignment has been determined. It must be made clear that this is not a preferred solution and it has been developed to enable the completion of a sufficiently robust assessment process. The alignment selected is broadly in keeping with one that is in the middle of the range of possible options first considered in the 2014 Committee report. Tests have been undertaken following this alignment for a dual carriageway and a single carriageway solution.

A second assumption for this alignment has been the type of structure. Diagrammatic solutions for a viaduct (bridge) and tunnel have been considered. These options were developed in part to take account of previous discussions with the statutory environmental organisations – Environment Agency (EA) and Natural England (NE) – and they have enabled further more recent discussions with them. The various structure types have also enabled indicative costs to be developed based on these structure types.

It is also assumed that the A47 dual carriageway project between Easton and North Tuddenham currently being progressed by Highways England has been completed ahead of the NWL. This is on the basis that this is a listed project in the current HE Road Investment Strategy programme and following recent publication of a preferred route alignment (August 2017) and HE's suggested construction start date of 2020.

2.15. Feedback from Environmental Bodies

Further discussions with NE and EA have highlighted specific points they saw as positive contributions to the design:

- It was acknowledged that there was no construction upon the river banks which was a key concern from previous consultation;
- It was welcomed that the embankments and bankseats are not within the floodplain; and
- A significant soffit height of the bridge above the watercourse would reduce the degree of shading that is encountered.

The meetings also highlighted a range of other issues to be addressed:

- Concerns about the potential effects of the tunnel option upon groundwater flow which could compromise the Water Framework Directive objective for the groundwater body. This could become a 'showstopper' for this option;
- Highway runoff is likely to require a high degree of treatment to both remove common highway pollutants, but also to provide adequate emergency provision;
- It was queried whether salt spray could result in an impact upon the Wensum and this will require additional assessment:
- Smaller, thinner piers are preferable from the perspective of flood water attenuation and this should be considered as the design progresses:
- Greater information on the construction process should be included in any future optioneering;
- A significant number of species surveys are likely to be required in order to provide sufficient information to inform the assessments; and
- Opportunities for environmental enhancement should be sought.

In summary, both the EA and NE were supportive of the progress that had been made with the proposals since consultation in 2016, although continued liaison during the adoption of a preferred alignment is recommended.

2.16. Economic Assessment

Based on details from the modelling completed and the assumed NWL alignment, types of structure and assumption of a connection to a dual carriageway A47, there are overall project benefits that are within the High value for money, based on the DfT assessment criteria.

It should be noted that these are high level assessments at this stage, with project costs allowances that provide for a significant structure crossing the Wensum Valley.

2.17. NextStepsforNWL

Following completion of the initial work by WSP, there is a case for the continuation of the project, assessing options in more detail against the emerging transport strategy, in particular against the project objectives. It should be noted that the work completed to date is at a high level and the next stages will continue to refine the detail further with the intention of developing options for consultation, ultimately to arrive at a decision for a preferred option or package of options.

- 2.18. A stakeholder engagement proposal is included at Appendix A and this sets out the next steps for the project over the next year. This aligns with the proposed work to be undertaken to complete further technical assessment for the project. In summary, the key engagement will include a consultation during the Spring/Summer 2018 to seek feedback overall on the support for a NWL, and asking for feedback on options that should be considered. Later in 2018, having completed further technical assessment, it is proposed to develop a shortlist of options for consultation to enable a decision regarding a preferred route/solution.
- 2.19. It should be noted that any technical work being undertaken regarding options appraisal will need to take account of observed traffic data following the opening of the NDR, therefore timescales will need to be developed taking this into account. If there are significant changes to the suggested timescales for the delivery of the project, these will be discussed at regular intervals with the Member Group and further reports will be brought to Committee.
- 2.20. The next steps for the project are set out in the table at Appendix B and it is

recommended that an update report is brought back to Committee late in 2018 to agree whether to continue the project and to also review and agree options for consultation to determine a preferred route/solution.

3. Financial Implications

3.1. Norwich Western Link

The latest update report by WSP has established a notional scheme that provides for a significant viaduct crossing the Wensum Valley. This has an indicative cost of around £160m (based on the present value of cost used in the value for money (vfm) analysis) and the vfm assessment has been based on this figure and on a notional alignment of possible road link between the A1067 and A47. The assessment still provides a high value for money output.

3.2. However, there is further work to complete to develop a solution and possible route. This is the work required as part of the next steps, and this needs to also include further work to assess the level of support for a possible link or other solutions that may meet the scheme objectives. The work completed does provide sufficient confidence that there is a case to continue with the delivery of the project.

3.3. The recommendation is for Committee to agree further work to move the project towards a more detailed range of options for consultation. This will provide for an informed decision making position for the project to continue to a next stage of developing a preferred route/solution and the development of a more detailed Outline Business Case.

3.4. The cost of the next stage, to the end of 2018, is estimated at £1m. At present there is no allocated funding to undertake this work. A funding bid has been submitted to the Pooled Business Rates fund for £0.5m and this requires match funding. The match funding could be provided by making use of the remaining A47 reserve. To date approximately £450k of this reserve has been used towards the NWL project, leaving £550k which is currently unallocated and therefore would be best used to match fund the Pooled Business Rates funding, if this bid is successful. An approximate breakdown of costs is provided in Appendix B, with approximately £300k in the remainder of 2017/18, and £700k in 2018/19.

3.5. It is expected that the Pooled Business Rates funding bid announcements will be confirmed during October 2017. However, if this bid is unsuccessful, there will be a need to fund this shortfall. If this occurs, it is recommended that Committee agree to delegate authority to consider alternative funding strategies to the Executive Director of Community and Environmental Services in consultation with the Chair/Vice Chair and Executive Director of Finance and Commercial Services, or to a review of the delivery timescales of the project to align with the available budget.

3.6. Funding options for the construction of the final scheme are still being developed, and it is too early in the delivery process to provide confirmation of a preferred funding solution. It is therefore recommended that this remains part of the scheme development process and funding is identified for each stage as the project moves forwards. Initially, funding has been set out for the next phase in para 3.4 above, and further bids are likely to be made to the Local Growth Fund (managed by the New Anglia LEP) for future scheme development.

4. Issues, risks and innovation

4.1. Robust risk management arrangements are being developed for the Norwich Western Link for the next stages of work for the project. These arrangements

will be similar to those developed and set out in the Outline Business Case provided for the Great Yarmouth 3rd River Crossing project, following good practice methodologies for project management.

4.2. Project governance

Assuming there is agreement by Committee to continue with the project, there is a need to provide good project governance to oversee the next stages of delivery, ensuring key decisions are made via a project board and the allocated budgets are managed. A dedicated Project Manager will be essential to this, to ensure the project is being delivered to programme and budget and that the relevant resources are being engaged and managed accordingly and all issues, including risks, and general progress are reported to the Board. It is also expected that the project Member Group will continue to meet and will be informed and updated by the Project Manager and the Board.

4.3. Key Project Risks

The Norwich Western Link project is following behind the A47 Easton to North Tuddenham proposals. It will therefore remain important for the project team to continue to work closely with Highways England to ensure the implications of this scheme are considered.

4.4. In addition, the opening of the NDR will need to be closely monitored as this will have a significant impact on the assumptions made currently in the modelling. This will need to be informed by actual observed traffic movements following the opening of the NDR early in 2018.

4.5. The development of the Easton Food Enterprise Zone (FEZ) will also need to be closely monitored to assess the scope of its impact and influence as the NWL proposals and options are developed. The FEZ will also influence the A47 proposals and this will also need to be monitored as part of working with Highways England as they develop their route alignment and junction strategy for the A47.

4.6. The initial work with the statutory environmental bodies has provided important initial feedback to assist the project development. There will be a need to continue this engagement to ensure any options meet the objectives, but also minimise impacts to the environment, particularly taking account of the points already made in discussion with Environment Agency and Natural England (see para 2.15 above).

4.7. There will be a need to update the traffic model and complete more detailed work to assess the environmental impacts of any options as they develop. The modelling will need to take account of the monitored traffic flows and network impacts following the opening of the NDR, and will also need to model the impacts of the A47 dualling (and any modelling work and data used by Highways England), Easton FEZ and any emerging growth locations as part of the Local Plan Review.

5. **Background**

5.1. Links to previous committee reports:

- EDT Committee 18 September 2014 – Follow this [link](#) (see item 11, page 28)
- EDT Committee 8 July 2016 – Follow this [link](#) (see item 9, page 25)
- B&P Committee 8 September 2017 – Follow this [link](#) (see item 10)
- EDT Committee 15 September 2017 – Follow this [link](#) (item 15, page 98)

Links to Highways England preferred route announcement details:

- Easton to North Tuddenham via this [link](#)

Officer Contact

If you have any questions about matters contained in this paper or want to see copies of any assessments, eg equality impact assessment, please get in touch with:

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