Norwich Western Link

Options Consultation

26 November 2018 – 18 January 2019

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Norfolk County Council

IN TRAN communication for all

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Contents

Why are we doing this consultation?

Creating a Norwich Western Link to connect the western end of Broadland Northway (formerly the Northern Distributor Road) to the A47 is one of Norfolk County Council's top infrastructure priorities.

We're aware that there are significant problems with traffic congestion, rat-running and slow journey times in the area to the west of Norwich, and these are only likely to get worse as the number of people living and working in the county increases.

In summer 2018, we carried out our first Norwich Western Link consultation. We received more than 1,700 responses to this consultation which showed there is very strong support for creating a link between Broadland Northway and the A47, with the majority of those responding suggesting a new road as their preferred solution.

Following months of work, we have now shortlisted four road options that we think could be effective as a Norwich Western Link. Between Monday 26 November 2018 and Friday 18 January 2019, we're asking for your views on them to help us identify a preferred option.

We want you to feel able to make an informed response to the consultation, so we have provided detailed information on each of the options. Please look through all the information provided here before giving us your views – you can do so online via **www.norfolk.gov.uk/nwl** or in person at one of our consultation events.

We're looking forward to hearing what you think and every response will be considered. Thanks in advance for taking the time to give us your opinions and insight.

Why do we need a Norwich Western Link?

Broadland Northway (formerly the Northern Distributor Road) fully opened to traffic in spring 2018 and has already shortened many people's journey times and changed the way they travel.

However, even before construction on Broadland Northway started, there were calls to fill in what many people saw as the 'missing link' between where the new dual carriageway road ends at the A1067 Fakenham Road and the A47. There were concerns that existing transport problems in communities and on roads to the west of Norwich were only going to increase.

In the last few years, we have made changes to some roads in this area following discussions with local people, including introducing traffic restrictions and traffic calming and improving some junctions. However, it's clear there is still a wider problem that needs to be tackled.

Why now?

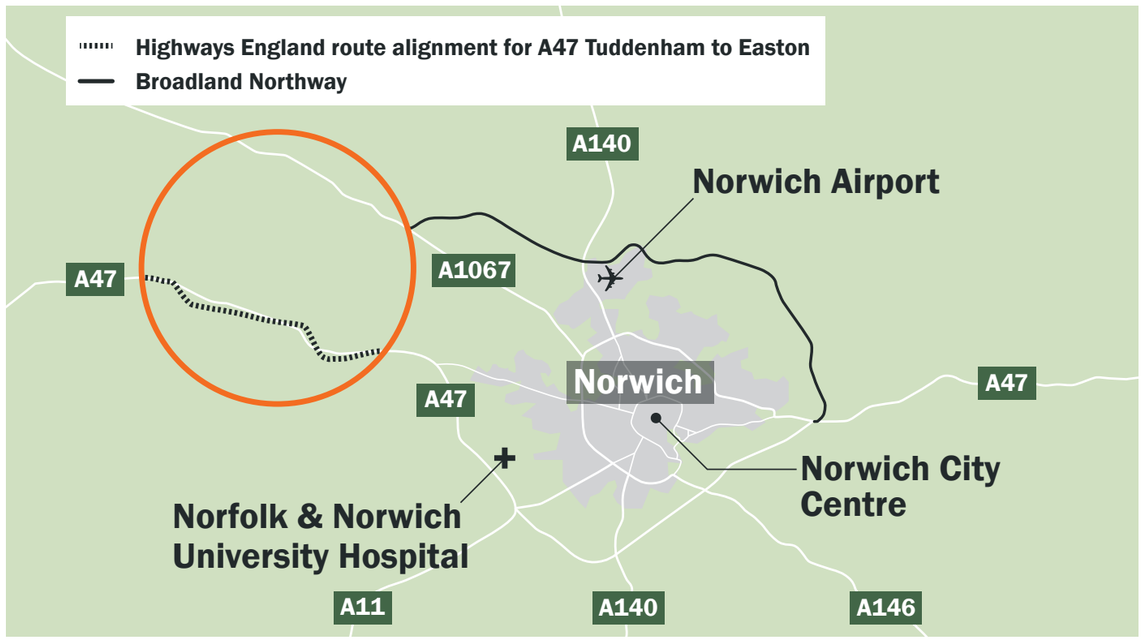
In summer 2018, we carried out traffic surveys on roads to the west of Norwich and compared these with similar surveys done in 2015. These surveys suggest the level of traffic is generally higher than was previously recorded in 2015.

Traffic modelling – which uses data to predict future traffic levels – also suggests pressure on these roads is likely to increase as more jobs and homes are created in and around Norwich.

Linking to the A47 west of Norwich was considered when Broadland Northway was originally proposed. At the time, the section between the A1067 Fakenham Road and A47 was omitted from the scheme due to the challenges posed by the potential need for this section of road to cross the River Wensum, which is a Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI).

We know we will need to be extremely mindful of these environmental and ecological sensitivities at every stage of our work to create a Norwich Western Link so that we minimise any adverse impacts and, wherever possible, enhance the environment in this area. We've done lots of work and research into this and we're confident this is possible.

With transport problems such as traffic congestion and rat-running increasing in this area, and set to increase further, there is a greater need to create a Norwich Western Link now than ever before.



What a Norwich Western Link should achieve

We want to find the best possible option for a Norwich Western Link and this means we want it to achieve a number of different things.

So we have developed objectives which will guide our work. These comprise strategic objectives, which will ensure the project is aligned with local and national policy on planning and transport, and local objectives, which have been created with the help of local residents.

Strategic Objectives

- Support sustainable growth
- Improve the quality of life for local communities
- Support economic growth
- Promote an improved environment
- Improve strategic connectivity with the national road network

Local Objectives

- Reduce congestion and delay, and improve journey time reliability, on routes in the area to the west of Norwich
- Improve network resilience and efficiency of the strategic and local transport network
- Reduce the number of heavy goods vehicles using minor roads
- Make the transport network safer for all users (including non-motorised users)
- Encourage a shift to more sustainable modes of transport, such as public transport, walking and cycling
- Provide traffic relief (and reduce noise and emissions) within residential areas
- Enable improved accessibility to existing and new housing and employment sites
- Improve emergency response times
- Improve access to green space
- Not affect the ecological integrity of the Wensum Valley Special Area of Conservation
- Contribute to the improved health and well-being of local residents
- Improve connectivity and access to Norwich International Airport, Norwich Research Park and Norfolk & Norwich University Hospital

We are working to the following timetable, some of which is subject to all the necessary statutory processes for a project of this kind being completed.

Summer 2018 Initial consultation	Winter 2018/19 Options consultation	Spring 2019 Preferred route announcement	Autumn 2021 Planning process complete	Late 2022 Start of construction

How we shortlisted our four options

We started with an initial long list of 82 options which included:

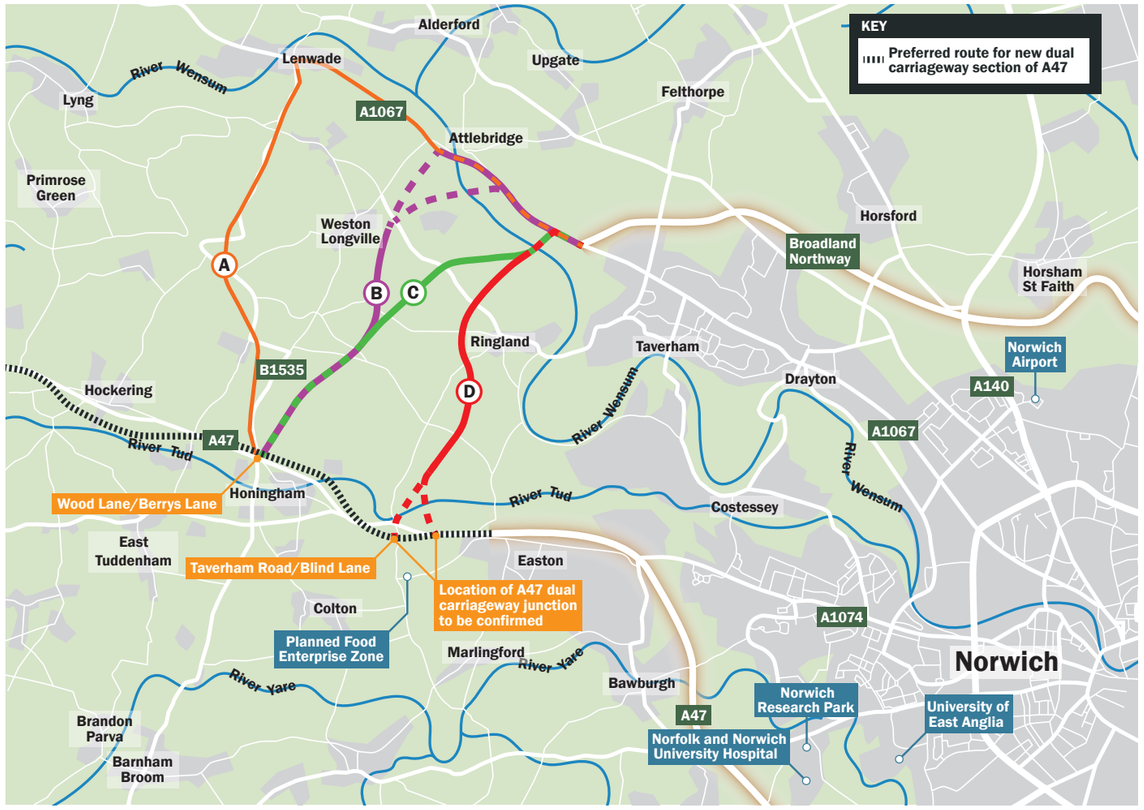
- New dual and single carriageway roads
- Improving existing roads
- Public transport
- Cycling and walking facilities
- Junction improvements
- HGV management
- The use of smart technology
- Tolling

We then used a Department for Transport approved ‘sifting’ method to refine these and eliminate those that were not effective options. This was based on a number of factors including how well they tackled the transport problems to the west of Norwich, deliverability and environmental impact.

Balancing all these factors, and reflecting on the outcome of the initial consultation in summer 2018, road options came out as the best solution for a Norwich Western Link.

However we are keen to make sure the Norwich Western Link encourages people to use other, more sustainable forms of transport such as walking, cycling and public transport. So when we come to select a preferred route we will consider if we need to put in any additional transport measures that could complement this route.

Our shortlisted options



We have shortlisted four road options and, through our consultation, we want your views on how effective you think they could be as a Norwich Western Link.

The shortlist contains three new dual carriageway roads and a single carriageway upgrade to the B1535. While the majority of the new or improved roads would be built at or near ground level, viaduct-style bridges over river flood plains are included in some of the options.

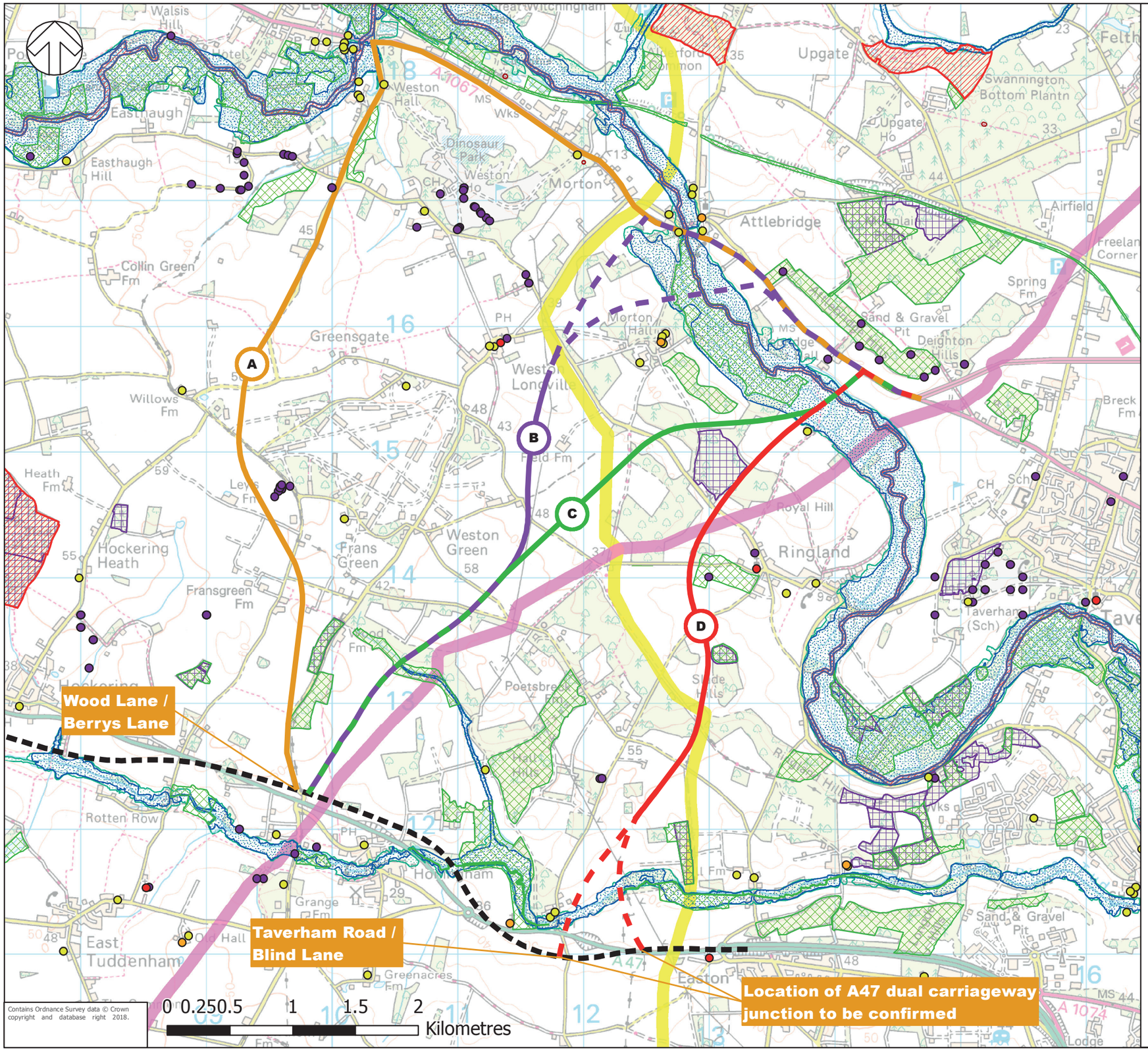
All of the routes also include improvements to the A1067 Fakenham Road.

As far as possible, we have sought to avoid sensitive environmental areas and physical constraints, such as homes, businesses and listed buildings.

The options also take account of Highways England’s plans to dual the section of the A47 between North Tuddenham and Easton, which has a planned construction start date of 2021. Due to the complexity of joining any road to a dual carriageway, a Norwich Western Link would need to join the dualled A47 at one of its proposed junctions.

These routes are indicative at this stage and further detailed design work on a preferred option would be needed before an exact alignment can be confirmed. Feedback from this consultation will be used to inform this work.

Route options and physical and environmental constraints



Key

A47 Preferred Route Alignment

Constraints

- Listed Building, Grade I
- Listed Building, Grade II*
- Listed Building, Grade II
- Veteran Trees
- Special Area of Conservation
- Site of Special Scientific Interest
- County Wildlife Site
- Ancient Woodland
- Scheduled monument
- Roadside Nature Reserve
- Flood Zone 3
- Flood Zone 2
- National Grid Gas Pipeline
- Hornsea Project Three

Shortlisted Options

- Option A
- Option B
- Option B
- Option C
- Option D
- Option D

Option A

Route length 7.2 miles

Estimated cost £60m

Value for Money Low

10,000 vehicles per day predicted to use this route by 2040

What

Single carriageway upgrade of the B1535 and a section of the A1067, significantly realigning the current B road and smoothing it out to make it a higher standard route.

Where

Linking to the A47 at the Wood Lane junction north of Honingham and joining the A1067 via a new junction at Lenwade, making use of the existing bridge across the River Wensum at Attlebridge.

Environment

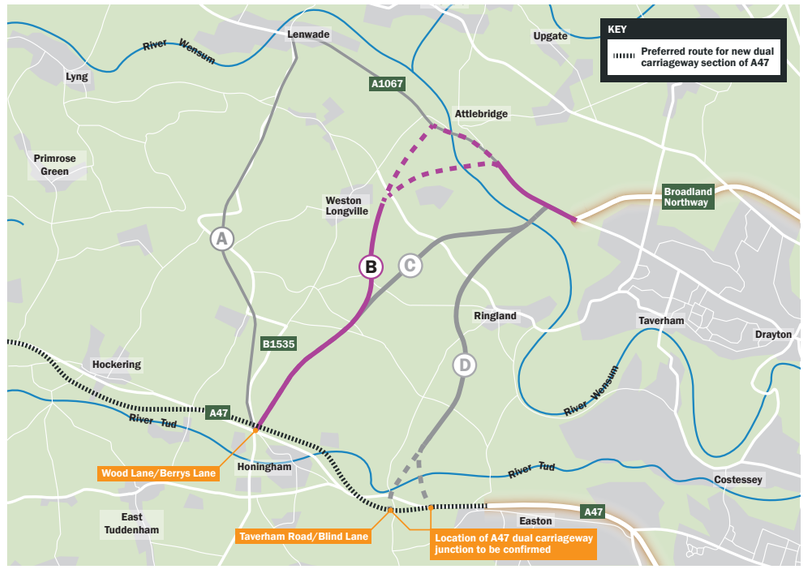
It would use the existing river crossing at Attlebridge and therefore does not require a new crossing of the River Wensum. This option does not cross the River Tud.

It is anticipated that this option would have low impact on the River Wensum Special Area of Conservation and Site of Special Scientific Interest. It would however mean that higher levels of traffic would use the Wensum crossing at Attlebridge and be close to the river at Lenwade. Careful consideration of the treatment of highway water run-off and the volumes of run-off during flood events would be required.

Near to Lenwade the route is likely to lead to loss of woodland in order to provide a connection with the A1067 and provide a higher standard of road along the existing B1535. This would require mitigation such as planting new trees to reduce the effects upon habitats and protected species.

The route would pass immediately adjacent to three County Wildlife Sites and passes within 500m of 15 listed buildings.

Option B



Route that uses the existing bridge: 5.1 miles
Route with new viaduct: 4.7 miles

Estimated cost using existing bridge: £129m
With new viaduct: £155m
Value for Money High

30,000 vehicles per day predicted to use this route by 2040

What

A new dual carriageway route and dual carriageway upgrade of a section of the A1067.

Where

The new route is to the east of Weston Longville and links to the A47 at Wood Lane. At the northern end of this route, two alternatives are given for how it could join the A1067:

- One via a new junction just west of Attlebridge which would be routed on the A1067 through the edge of the village and include widening the existing River Wensum bridge.
- The other would see a new 660 metre viaduct crossing of the River Wensum, joining the A1067 to the east of Attlebridge, avoiding the village.

Environment

The route through Attlebridge that would widen the River Wensum bridge could have impacts on the Special Area of Conservation and Site of Special Scientific Interest. This is due to the low clearance of this bridge to the watercourse and is subject to ongoing liaison with statutory environmental bodies. The alternative route to the south of Attlebridge would consist of a 660m viaduct crossing of the River Wensum flood plain with significantly higher clearance, which is not anticipated to affect the integrity of the River Wensum environmental designations. Careful consideration of the treatment of highway water run-off would also be required for both crossing options.

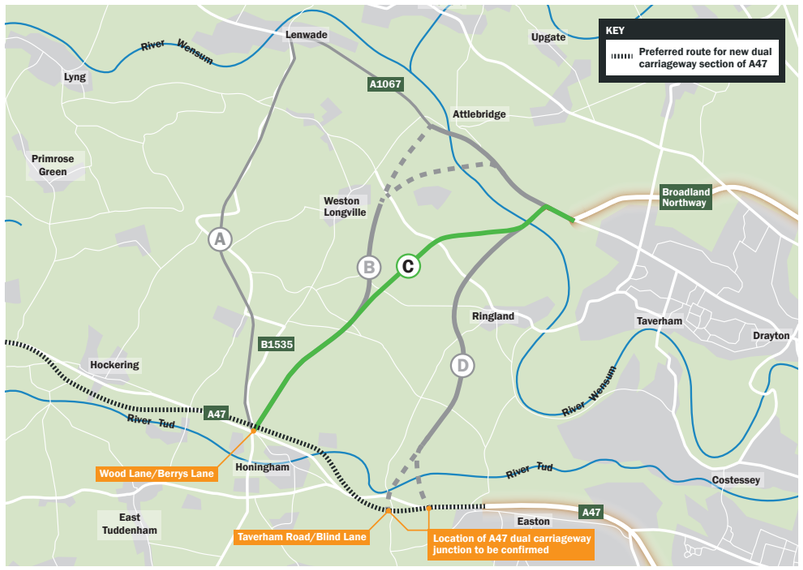
Works within the flood plain would require compensatory flood storage ponds. The management of water run-off during flood events will also need to be considered.

This option does not cross the River Tud.

The route would bisect a County Wildlife Site if it uses the Attlebridge river crossing, the other route bisects two County Wildlife Sites. The routes would also lead to loss of woodland at some undesignated sites. This would require mitigation such as planting new trees to reduce the effects upon habitats and protected species.

Both routes would pass within 500m of four listed buildings.

Option C



Route length 3.9 miles

Estimated cost £153m

Value for Money High

32,000 vehicles per day predicted to use this route by 2040

What

A new dual carriageway route and a short section of dual carriageway upgrade of the A1067.

Where

Linking to the A47 at Wood Lane, the new route would be located approximately halfway between Weston Longville and Ringland, crossing the River Wensum on a 720 metre-long viaduct. It would join the A1067 at a new junction. Around 400 metres of the A1067 would be dualled.

Environment

The route would require a new viaduct crossing of the River Wensum flood plain. The viaduct crossing would provide significant clearance above the river so as to not affect the integrity of the River Wensum Special Area of Conservation and Site of Special Scientific Interest. Careful consideration of the treatment of highway water run-off would also be required.

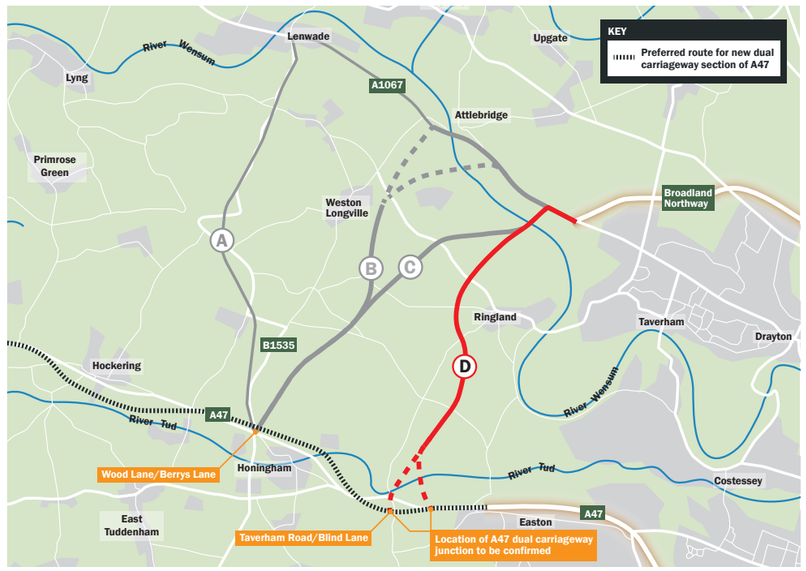
Works within the flood plain would require compensatory flood storage ponds. The management of water run-off during flood events will also need to be considered.

This option does not cross the River Tud.

This route would bisect one County Wildlife Site. The route would also lead to loss of woodland at some undesignated sites. This would require mitigation such as planting new trees to reduce the effects upon habitats and protected species.

This route passes within 500m of one listed building.

Option D



Route that connects to the A47 further to the West: 3.8 miles East: 3.7 miles

Estimated cost £161m

Value for Money High

31,000 vehicles per day predicted to use this route by 2040

What

A new dual carriageway route and a short section of dual carriageway upgrade of the A1067.

Where

This is the only option to link to the A47 further east and would cross the River Tud on a 120 metre viaduct. It would pass to the west of Ringland and then cross the River Wensum on a 660 metre-long viaduct. It would join the A1067 at a new junction and around 400 metres of the A1067 would be dualled.

Two alternatives are given for how it could join the A47, one at Taverham Road and one closer to Easton. This is because of Highways England's plans to dual the A47 between North Tuddenham and Easton, which include the removal of the existing A47 roundabout at Easton. There is little information currently available about the proposed junction at this location and, because of this, we have accounted for the possibility of the junction being located closer to the current Easton roundabout junction.

Environment

The route would require a new viaduct crossing of the River Wensum flood plain. The viaduct crossing would provide significant clearance above the river so as to not affect the integrity of the River Wensum Special Area of Conservation and Site of Special Scientific Interest. Careful consideration of the treatment of highway water run-off would also be required.

This option requires an additional viaduct across the flood plain of the River Tud and similar requirements to that of the Wensum may be expected.

Works within the flood plain would require compensatory flood storage ponds. The management of water run-off during flood events will also need to be considered.

The routes would lead to loss of woodland at some undesignated sites. This would require mitigation such as planting new trees to reduce the effects upon habitats and protected species.

This route passes within 500m of one listed building and a further two listed buildings if the more westerly connection to the A47 was followed.

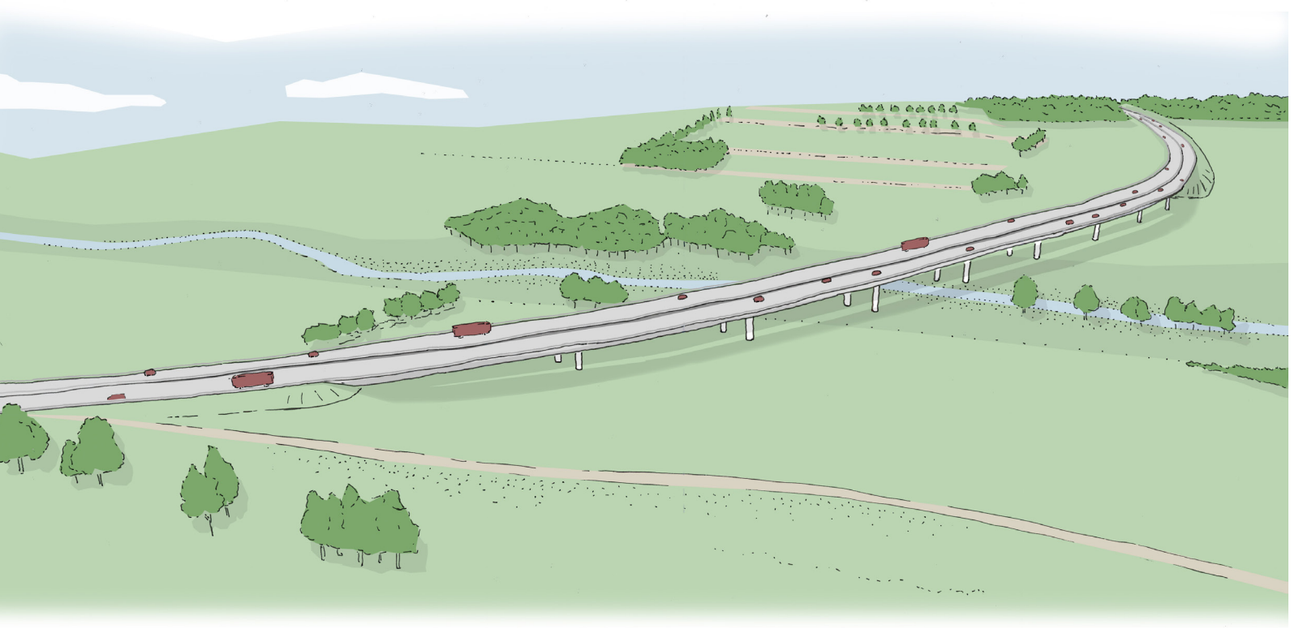
Crossing the rivers

For some options we are considering making use of or widening the existing bridge at Attlebridge. However, for any new crossings we are proposing viaduct-style bridges and this is largely for environmental reasons.

The height of the viaducts would be dictated by the extent of the floodplains on either side of the rivers. We need to minimise construction within these floodplains because this could have a knock-on effect on where and how the river floods.

Higher bridge crossings are more likely to protect the state of the rivers and their ecology. This is the case both during the construction phase, as supports would be built further from the river bed, and on an ongoing basis due to them creating significantly less shade on the river and causing less disruption to wildlife than a lower bridge.

The exact design of the bridge is yet to be confirmed – further detailed work on this will be done once we have identified a preferred route for the Norwich Western Link. The artist's impression below gives an indication of what a new viaduct over the River Wensum could look like.



Traffic modelling

To predict how traffic flows and movements are likely to change as a result of each of the four Norwich Western Link options, we have used traffic modelling software.

We've used the Norwich Area Transportation Strategy traffic model which includes Highways England's A47 improvement schemes. The model has been refined by adding more local data for use in relation to our work on the Norwich Western Link. This included using recent traffic surveys to better reflect traffic levels on minor roads in the area to the west of Norwich.

Our modelling, shown on the traffic flow map, predicts what daily traffic levels are likely to be on identified routes in 2040. The four potential Norwich Western Link route options have been modelled with the assumption that their junctions with the A47 are 'grade separated' (junctions which don't interrupt the dual carriageway, by using slip roads at a different level). The impact each of the routes is predicted to have on traffic levels is also compared with a 'Do Nothing' option for 2040, with no Norwich Western Link.

Journey time impacts

In order to give an indication of how the Norwich Western Link options would impact on journey times we have calculated travel times between key points on the A47, Broadland Northway and the A1067. Results for each of the Norwich Western Link options are compared with a 'Do Nothing option below.

Route	Time (minutes)				
	Do Nothing	Option A	Option B	Option C	Option D
Taverham Road/Blind Lane A47 junction to western end of Broadland Northway	11	11	6	6	5
Between Wood Lane/Berrys Lane junction to western end of Broadland Northway	12	10	5	5	7
Between Taverham Road/Blind Lane A47 junction to B1535 junction with A1067 at Lenwade	11	7	8	9	8
Between Wood Lane/Berrys Lane junction to B1535 junction with A1067 at Lenwade	9	5	9	9	9

Traffic Flow Map

24 hour 2-way traffic flow	
Option A	9,814
Option B	29,969
Option C	31,670
Option D	30,812

The Common

Do Nothing	3,175	
If Option A	2,569	▼19%
If Option B	2,265	▼29%
If Option C	2,249	▼29%
If Option D	2,258	▼29%

Weston Hall Road

Do Nothing	5,743	
If Option A	9,932	▲73%
If Option B	229	▼96%
If Option C	1,092	▼81%
If Option D	2,083	▼64%

A1067

Do Nothing	14,188	
If Option A	13,221	▼7%
If Option B	20,164	▲42%
If Option C	17,201	▲21%
If Option D	16,755	▲18%

Heath Road

Do Nothing	1,010	
If Option A	450	▼55%
If Option B	719	▼29%
If Option C	922	▼9%
If Option D	929	▼8%

Wood Lane

Do Nothing	8,973	
If Option A	5,918	▼34%
If Option B	804	▼91%
If Option C	1,509	▼83%
If Option D	2,666	▼70%

A47

Do Nothing	36,751	
If Option A	37,931	▲3%
If Option B	36,824	▲0.2%
If Option C	36,659	▲0.3%
If Option D	38,891	▲6%

Honingham Road

Do Nothing	5,575	
If Option A	5,934	▲6%
If Option B	818	▼85%
If Option C	818	▼85%
If Option D	904	▼84%

A1067

Do Nothing	19,898	
If Option A	19,642	▼1%
If Option B	35,582	▲79%
If Option C	38,114	▲92%
If Option D	37,434	▲88%

Broadland Northway

Do Nothing	15,303	
If Option A	15,649	▲2%
If Option B	28,063	▲83%
If Option C	30,243	▲98%
If Option D	29,709	▲94%

The Street

Do Nothing	1,057	
If Option A	872	▼18%
If Option B	595	▼44%
If Option C	594	▼44%
If Option D	576	▼45%

Ringland Road

Do Nothing	5,742	
If Option A	5,047	▼12%
If Option B	416	▼93%
If Option C	387	▼93%
If Option D	379	▼93%

Taverham Lane

Do Nothing	7,789	
If Option A	7,466	▼4%
If Option B	7,143	▼8%
If Option C	6,868	▼12%
If Option D	5,894	▼24%

A47

Do Nothing	43,577	
If Option A	45,324	▲4%
If Option B	42,524	▼2%
If Option C	42,060	▼3%
If Option D	46,903	▲8%

Lyng
River Wensum
Lenwade
Alderford
Felthorpe
A1067
Attlebridge
Primrose Green
Weston Longville
Broadland Northway
A
B
C
D
Ringland
Taverham
B1535
Hockering
A47
River Tud
Honingham
River Wensum
Costessey
Easton

Environmental considerations

Rivers Wensum and Tud

The River Wensum is a Special Area of Conservation (SAC) and a Site of Special Scientific Interest (SSSI), which means it is a protected site and internationally important for its wildlife. The River Tud also supports many species of wildlife.

Following discussions with Natural England and the Environment Agency, agreement was reached that a bridge crossing of the rivers could be possible, but this would be subject to more detailed design and mitigation proposals.

There is the potential for a Norwich Western Link to reduce the amount of silt that runs off the existing road network into the rivers due to HGVs and other vehicles overrunning and damaging verges. Drainage and management of this 'run-off' will be carefully considered in our detailed design work.

Ecology and habitats

Any potential loss of habitat caused by a Norwich Western Link would need to be assessed and mitigation measures put in place. Comprehensive ecological monitoring will be carried out to identify which protected species are present in the area.

Noise and air pollution

By re-routing traffic onto a higher quality road, the Norwich Western Link options would reduce traffic noise and emissions in some areas, including in areas where people live and work. Additional noise and pollution would be created along any of the Norwich Western Link options, all of which are routed through a mostly rural landscape. Noise mitigation measures, such as planting and embankments, would be factored into our design work.

Landscape and visual impact

The bridges would have to be built high enough to ensure they clear the floodplains and to minimise the impact on the environment. We expect the bridge over the River Wensum to provide around 12 metres (39 feet) clearance above the river. Because the bridges would be built in low-lying ground, we don't expect them to dominate the wider landscape; we would look to integrate any new bridges within their surroundings through appropriate planting and landscaping.

Archaeology

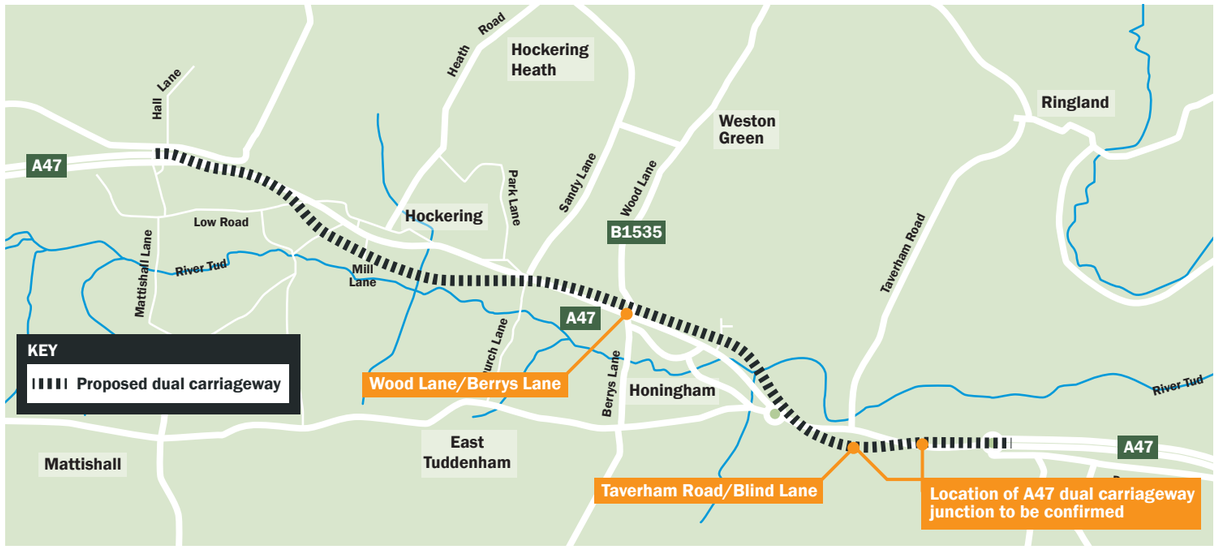
It is likely that any of the Norwich Western Link options could pass through areas containing unrecorded archaeological remains. Before any construction work would begin, a full archaeological appraisal would be needed and there is a potential opportunity to enhance understanding of the archaeological history of the Wensum Valley.

Wider context

Across the county, there are plans to provide more housing and create more jobs to meet demand and match population growth and there is currently a separate local plan review underway to assess and confirm future targets for this.

There are also plans to create a Food Enterprise Zone to the west of Easton, which could provide around 2,000 jobs in the agri-food sector.

Highways England is intending to dual the A47 from North Tuddenham to Easton, with the aim of reducing congestion and improving safety on this stretch of road. Construction is due to start in 2021 and comprises a new dual carriageway to the south and north of the existing road. Highways England are also planning to make capacity improvements to the A11/A47 Thickthorn roundabout south of Norwich, with this work due to start in 2020.



Land and property owners

If you notice that any of the four presented options has a potential impact on your land or property at this stage, be assured that this does not necessarily mean that the preferred option will have an impact as the design develops. Once we have a preferred option there is still scope to make minor adjustments to the alignment as we go through the detailed design process. Detailed design will include further consideration of properties and land ownership and, where possible, the mitigation of any impacts of the chosen option.

Once the preferred route is announced in 2019 we will look to engage further with property and landowners who may be affected by the preferred route. If you have concerns about the impact on your property or land at this stage please contact us using details provided in the 'Have your say' section and we will be happy to discuss with you.

There are a number of statutory processes in place to protect your interests and we can advise you on these if appropriate.

Find out more

The consultation runs from Monday 26 November 2018 to midnight on Friday 18 January 2019.

We would encourage everyone to look through all the information available as part of the consultation before making their response. This information will be available to view via **www.norfolk.gov.uk/nwl** throughout the consultation period and at a series of consultation events where people will also be able to talk to staff involved in the project and respond to the consultation in person.

Consultation events

All consultation events will run between 2 and 8pm unless otherwise stated.

Ringland Village Hall	Wednesday 28 November
Drayton Village Hall	Monday 3 December
The Forum, Norwich	Tuesday 4 December (12 – 5pm)
Hockering Village Hall	Wednesday 5 December
Easton Village Hall	Monday 10 December
Taverham Village Hall	Tuesday 11 December (12 – 6pm)
Hall for All, Weston Longville	Wednesday 12 December
Salvation Army Church, Fakenham	Friday 14 December
Aylsham Town Hall	Tuesday 8 January
Diamond Jubilee Lodge, Hellesdon	Thursday 10 January
Great Witchingham Village Hall	Friday 11 January
The Costessey Centre	Monday 14 January
Dereham Memorial Hall	Tuesday 15 January
Honingham Village Hall	Wednesday 16 January

Have your say

We want people to tell us what they think of our shortlisted options to help us identify a preferred option for a Norwich Western Link – we expect to be able to announce this in spring 2019.

We also want to make sure we have considered everything we need to before deciding on a preferred route, so it's important to tell us any information you think is relevant at this stage through the consultation.

There are several ways you can respond to the consultation. You can:

- Complete the consultation questionnaire online via **www.norfolk.gov.uk/nwl**
- Respond in person at one of our consultation events (see above)
- Email us at **norwichwesternlink@norfolk.gov.uk**
- Writing to Norwich Western Link, Infrastructure Delivery Team, Norfolk County Council, County Hall, Floor 2, Martineau Lane, Norwich, NR1 2DH.

Norfolk County Council