

Appraisal Summary Table PCF Stage 1		Date Produced	11/11/2016	Con
Name of scheme	A47 Wansford to Sutton Dualling - Option 10			Name
Description of scheme	This scheme involves dualling 2.5km of the A47 between the A1 Wansford Junction in the west and Nene Way Roundabout in the east. In addition there is a free-flow lane from the southbound A1 to the eastbound A47. It is assumed that the dualling will be constructed offline.			Organisation
				Role

Impacts	Summary of key impacts	Assessment			
		Quantitative	Qualitative	Monetary £(NPV)	
Economy	Business users & transport providers	The increased capacity of the A47 and the free-flow lane result in substantial journey time benefits	2036 Journey times: A1 (N) to A47 (E) reduces 251s AM, 74s IP, 170s PM. A47 (W) to A47 (E) reduces 871s AM, 62s IP, 157s PM	Highly Beneficial	£61.736 million
	Reliability impact on Business users	The difference between peak hour and interpeak journey times is substantially reduced, particularly due to the reduction in AM peak period queues at Wansford roundabout and on the A1 southbound offslip. There are also benefits from the increase in capacity on the A47 and the reduction in delays at intermediate junctions.	2036 Journey times: AM to IP difference A1(N) to A47(E) 232s drops to 55s. A47(W) to A47 (E) 859s drops to 50s	Highly Beneficial	NA
	Regeneration	The site is in existing use so the scheme will not have any regeneration effects. The site is not located within a regeneration area.	NA	Neutral	NA
	Wider Impacts	It is anticipated that a reduction in transport cost through journey time improvements will allow companies to profitably increase output. This output change owing to imperfect competition provides an economic benefit estimated at 10% of all journey time benefits for business users as per WebTAG A2.1 Paragraph 4.1.9. Overall it is anticipated that there will be a slight economic benefit for the wider area. The scheme will provide additional transport capacity to support new development along this part of the A47 and A1	NA	Moderate Beneficial	£6.174 million
Environmental	Noise	The alignment of option 10 moves the proposed route marginally north of the existing A47 alignment and as such will have only local effects on property along the existing A47. Option 10 would move the road alignment closer to Sacrewell Farm and Country Centre (approximately 250m north of the proposed alignment) and further away from the 24 hour service station (approximately 60m south of the proposed alignment). This alignment change is not significant for either property. There are two Noise Important Areas located within 300m of the proposed option. The alignment of option 10 will move the alignment away from the noise important area at Sutton Heath Road but it does so by directly impacting the property to which this NIA applies. It also moves the alignment closer to the second property on Sutton Heath Rd.	NA	Minor Adverse	NA
	Air Quality	Option 10 would not result in any additional air quality receptors. As the purpose of the proposed offslip is to divert some of the traffic off the A1 and to relieve congestion, this may have a negligible beneficial effect - especially for those properties at Thackers Close, Wansford. However the primary influence on air quality here will remain the A1 traffic. The remaining property on Sutton Heath Road, if it is retained, will experience a negative air quality impact due to proximity, however it moves away from other properties. Option 10 will shift the route closer to the Sutton Heath and Bog SSSI (within approximately 50m). It is not considered that the change in air quality will have any additional impacts on this habitat. There are no Air Quality Management Areas (AQMAs) recorded within the study area, thus the proposed scheme is not expected to adversely impact on any AQMAs. The proposed scheme is not expected to result in the exceedance of air quality objectives (neutral impact).	NA	Minor Adverse	NA
	Greenhouse gases	Whilst traffic volumes and speed are expected to increase as a result of the proposed option, it is considered unlikely that there would be any significant change in the emissions of greenhouse gases.	NA	Neutral	NA
	Landscape	The landscape in the vicinity of the scheme is typical of the wider area and characteristic of the National Character Area. The local landscape comprises broad, gently undulating hills that are dissected by the River Nene at the point where it descends from the rolling Northamptonshire landscape to the flat fenland. The proposed alignment of option 10 is primarily offline to the north - the extent of the offline will result in significant impacts on hedgerows and woodland copses. The location of the off slip is already dominated by junction infrastructure. The overall landscape impact is slight adverse. The link roads will have a local landscape impact but this is comparable across the options. Option 10 would move the route alignment closer to a visual receptor immediately north of the A47 (negative impact) and further away from a visual receptor to the south of the A47 (positive impact) in the vicinity of Sutton Heath Road.	NA	Minor Adverse	NA
	Townscape	Although the proposed alignment of option 10 moves the route within 50m of the margins of the nearest town, it does not encroach on it. Thus it will have no significant impact on the townscape.	NA	Neutral	NA
	Historic Environment	The study area is considered to contain substantial archaeological and heritage resources. There are 5 Scheduled Monuments within 1km of the route. Option 10 will have a very substantial and direct impact on the monument - the Bronze Age Cropmarks (NHLE No. 1006796). As a consequence the impact is very significant. The National Planning Policy Framework states that "Where a proposed development will lead to substantial harm to or total loss of significance of a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that outweigh that harm or loss," (Paragraph 133). The proposed option is expected to have neutral impacts on the other scheduled monuments. There is one Listed Building (Grade II) within 300m of the proposed alignment - Sacrewell Mill and Mill House and Stables (NHLE No. 1127493). The alignment is unlikely to effect the setting of this building.	NA	Highly Adverse	NA
	Biodiversity	The proposed alignment of option 10 would move the route closer to the main grassland feature of Sutton Heath and Bog SSSI and have a slight direct impact on the thin area of wooded stream valley which forms the southern tapered boundary of the SSSI. The option has no effect on the Wansford Pastures SSSI (asset is within approximately 620m south west of proposed alignment). Thus the impact on designated sites would be Moderate. Option 10 would result in the loss of some deciduous woodland and agricultural land to the north of the A47. It will also have a direct and permanent impact on the woodland and ponds to the west of Sutton Heath Road and potentially associated protected species. Thus it is anticipated that the route would have a negative impact on the habitats and protected species. Due to option 10 moving the route to the north, impacts on the habitat that falls within the Nene Valley NIA (lands to the south of the A47 and to the north of the River Nene are classified as County Wildlife Site and priority habitat for coastal and floodplain grazing marsh) are anticipated to be neutral/slight positive.	NA	Moderate Adverse	NA
Water Environment	The alignment of option 10 would move the proposed scheme further away from the River Nene (asset is within approximately 70m of proposed alignment). As a result there would be a neutral impact on the local water environment. There will be culvert widening required at the A1 offslip and Sutton Heath Road which may increase flood risk, but this is comparable across the options. The scheme does not encroach on a groundwater protection zone.	NA	Neutral	NA	
Social	Commuting and Other users	The free-flow lane from the southbound A1 brings substantial journey time benefits to commuters to Peterborough during the AM peak period. The overall journey time improvements bring benefits to other road users as well.	See above under Economy	Highly Beneficial	£67.385 million
	Reliability impact on Commuting and Other users	There is currently significant variability in journey times with peak hour journeys taking substantially longer than off-peak journeys. The scheme substantially reduces this variability thus producing more reliable journey times. This improvement is particularly noticeable during the AM commuting period for journeys into Peterborough.	See above under Economy	Highly Beneficial	NA
	Physical activity	The scheme will have no significant negative impact on physical activity. If the new road is built offline then the detrunked A47 may be available for walkers, cyclists and equestrian traffic.	NA	Slightly Beneficial	NA
	Journey Quality	The reduction in peak period congestion will significantly reduce driver stress and therefore improve journey quality.	NA	Highly Beneficial	NA
	Accidents	The number of accidents reduce as the result of safer overtaking opportunities on the dualled A47 and improvements to the junctions. The free-flow lane substantially improves safety at Wansford roundabout.	Reduces accidents by 236.5 over 60 years	Moderate Beneficial	£18.480 million
	Security	No security impacts are anticipated.	NA	Neutral	NA
Access to services	The scheme will improve access to services within Peterborough from villages to the east of the A1 and from various towns and villages to the west of the A1.	NA	Moderate Beneficial	NA	

	Affordability	The scheme will have a slight benefit in affordability due to the increase in transport efficiency but the impact will be broadly neutral.	NA	Neutral	NA
	Severance	The side road access has still to be finalised. Nevertheless, the scheme is likely to remove the direct access between a number of side roads and the A47. However, the high level of traffic on the existing A47 causes severance issues at these junctions. The scheme is likely to divert these roads to join the A47 at improved and safer junctions. The longer journey distance will be offset by lower delays at the junctions.	NA	Moderate Beneficial	NA
	Option and non-use values	The scheme will not change the availability of transport services.	NA	Neutral	NA
Public Accounts	Cost to Broad Transport Budget	Construction costs will be charged to Central Government's broad transport budget. The area of road surface to maintain will increase, but the reduced age of the new infrastructure will reduce the amount of maintenance or renewal that is required.	NA	Moderate Adverse	£76.117 million
	Indirect Tax Revenues	The increased speed on the A47 increases the amount of fuel used and thus increases the tax revenue, whereas the reduction in congestion reduces the amount of fuel used and thus reduces revenues. The net result is a small increase in indirect tax revenues.	NA	Neutral	£0.498 million

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David Low
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