

Great Yarmouth Third River Crossing

OUTLINE BUSINESS CASE

MARCH 2017

Appendix L – Appraisal Summary Table

Appraisal Summary Table

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Contact:

Name of scheme:		River Yare Third River Crossing, Great Yarmouth			Name	Ian Parkes		
Description of scheme:		New River crossing to connect the west and east areas of Great Yarmouth between A47 and the South Denes Peninsula which includes the Outer Harbour and local port activities. The scheme is proposed to be completed by 2023 and involve the construction of a new roundabout and traffic signal junction, approach roads and a lifting bridge able to accommodate four			Organisation	Norfolk County Council		
					Role	Promoter/Official		
Impacts	Summary of key impacts	Assessment						
		Quantitative			Qualitative	Monetary £(NPV)	Distributional 7-pt scale/ vulnerable grp	
Economy	Business users & transport providers	Scheme primarily impacts on short journey times of less than 5 minutes within the study area but also benefits longer distance travel. Access to the peninsula to the south of the town centre is improved and this reduces the amount of congestion at key junctions to the north and critically allows traffic to use an alternative river crossing between the port and the business areas to the east and the A47 to the west.			Value of journey time changes(£) £107.1m Net journey time changes (£) 0 to 2min 2 to 5min > 5min £18.9m £45.3m £42.8m	large beneficial	£122.6m	
	Reliability impact on Business users	The proposed scheme produces small benefits in terms of reliability for private travel (business users) as the proportion of car business users is low relative to total car travel				slight beneficial	£2.5m	
	Regeneration	Regeneris Report considers the GVA impacts of the scheme and assesses the attributable impacts to be of the order of 330 FTE jobs and £24m GVA by 2030.			GVA to £24m by 2030	slight beneficial		
	Wider Impacts	Wider impact assumes 10% from the Business User benefits produced from TUBA				slight beneficial	£12.3m	
Environmental	Noise	The scheme is likely to cause some increases in noise level at the dwellings and other noise sensitive receptors in the immediate vicinity of the both the new and improved sections of carriageway due to increases in road traffic generated noise. Preliminary traffic data indicates that there are road links in the immediate area of the scheme which will experience significant changes in traffic flow and hence noise level as a result of the introduction of this option.			There are 663 sensitive receptor buildings and no Defra Noise Important Areas within the 300m study area.	slight adverse	not calculated	not assessed
	Air Quality	There are no designated AQMAs within 200m of the scheme. There are also no ecologically designated sites considered sensitive to air pollution situated within 200m of the scheme. An overall neutral local air quality impact is likely given the traffic data provided (AM, IP & PM flows). A beneficial impact on regional emissions can be expected given the likelihood of the new bridge to reduce the distance travelled to cross the River Yare.			There are 252 potentially sensitive receptors within 200m of this option. Background mapped air pollutant concentrations are well below national objective values. Max roadside PCM concentrations, 2015: 29.4µg/m3, 2020: 23µg/m3. This is well below the threshold of 40µg/m3 for the Annual Mean level and unlikely to be exceeded by the proposed scheme.	slight adverse	not calculated	not assessed
	Greenhouse gases	Redistributional effects of traffic are likely to result in an insignificant change in the traded carbon equivalent - scoped out by environment team			Change in non-traded carbon over 60y (CO2e) (tonnes) -40,121 Change in traded carbon over 60y (CO2e) (tonnes) 85	slight beneficial to neutral	£1.8m	
	Landscape	Scoped out by environment team				neutral	not calculated	
	Townscape	The loss of some existing residential townscape although not of particularly strong or defined townscape value. Existing vistas along the river corridor may be interrupted or fore-shortened by the structure, although the bridge would not appear out of context in respect of existing townscape			The density and mix of development will not substantially differ. The bascule bridge would be in scale with the river environment	neutral	not calculated	
	Historic Environment	The setting of at least 2 Grade II Listed Buildings and two conservation areas may be indirectly impacted upon by this Option. Four non-designated heritage assets, including a railway line, a bomb crater and WWII defensive features may be directly impacted. There is potential to impact upon currently unknown below ground heritage assets.			Two Grade II Listed Buildings and two conservation areas may be indirectly impacted upon by this Option. Four non-designated heritage assets, including a railway line, a bomb crater and WWII defensive features may be directly impacted.	moderate adverse	not calculated	
	Biodiversity	No adverse effects expected to any international or national designated nature conservation sites. Potential to impact bat roosts, breeding birds, water voles, black redstarts and hedgehogs due to the loss of suitable habitat for these species associated with land take.			The Outer Thames Estuary Special Protection Area is within 2km of the proposed bridge crossing point. This site is designated because it supports 38% of the Great British population of red throated diver. There are no non-statutory designated sites within 2km.	slight adverse	not calculated	
Water Environment	Water environment impacts include increased discharge into water bodies (surface and groundwater), which may cause a slight decrease in water quality. Increased potential for accidental spillage contaminating surface water or groundwater.			Potential adverse impact to local aquifers during construction. Increase in flood risk along the watercourse due to increased run-off and reduction of floodplain.	moderate adverse	not calculated		
Social	Commuting and Other users	Scheme primarily impacts on short journey times of less than 5 minutes within the study area but also benefits longer distance travel. Access to the peninsula to the south of the town centre is improved and this reduces the amount of congestion at key junctions to the north and critically allows traffic to use an alternative river crossing between the port and the business areas to the east and the A47 to the west.			Value of journey time changes(£) £200.2m Net journey time changes (£) 0 to 2min 2 to 5min > 5min £41.2m £85.2m £73.8m	large beneficial	£206.4m	
	Reliability impact on Commuting and Other users	The proposed bridge would produce modest benefits in terms of reliability benefits as reduction in delays and congestion on the existing A47 at the Gapton and Harfreys roundabouts while providing faster and shorter travel time and distance to the Peninsula			Moderate flows reported in traffic modelling	Beneficial	£31.4m	
	Physical activity	The proposed scheme assists walking/cycling/physical activity			Pedestrians and cyclists counted as part of the assessment	slight beneficial	£3.7m	
	Journey quality	The scheme promotes walking/cycling, and improves journey quality for all users			Reduction in traveller stress from fewer queues and shorter journeys	slight beneficial	£5.7m	
	Accidents	The proposed scheme produces benefits in terms of accident savings, with total number of accidents saved over the appraisal period is 6 fatal, 43 serious and 220 slight accidents			269 accidents saved over 60 years - from COBALT	large beneficial	£12.6m	
	Security	No change is predicted			no assessment required	neutral	not calculated	not assessed
	Access to services	Bus, pedestrian and cycle journeys improved in addition to major benefits for commercial traffic. Produces town centre traffic relief and therefore improves travel throughout the town.			Existing bus services will benefit from improved journey times	large beneficial	not calculated	not assessed
	Affordability	Reduced travel times produces fuel savings and operating costs for all income groups			The scheme leads to commute benefits in excess £60m	slight beneficial	not calculated	not assessed
	Severance	Severance is reduced by the provision of a new crossing in a location that involves transfer distances of up to around 3km to be saved for the same journey			Scheme produces network wide lower levels of veh kms travelled and significantly reduces some journey distances to/from the peninsula	moderate beneficial	not calculated	not assessed
	Option and non-use values	Not assessed			not assessed	neutral	not calculated	
Public Accounts	Cost to Broad Transport Budget	The scheme has been costed at 2016 risk adjusted prices. Sunk costs have been removed and all costs converted to a 2010 price-base year and discounted to 2010, giving a present value of cost of just under £112m when 21% Optimism Bias is added.			Delivery period over 5 years to 2023 opening	Cost Note	£111.6m	
	Indirect Tax Revenues	Assessed in TUBA over 60 years. Indirect tax income reduces as the efficiency of the road network improves			60 year assessment period	TUBA benefits	£3.5m	