

Appendix L – Appraisal Summary Table

Impacts	Summary of Key Impacts	Assessment						
		Quantitative			Qualitative	Monetary £(NPV)	Distributional 7-pt scale/ vulnerable grp	
Economy	Business users & transport providers	The Lake Lothing Third Crossing will provide a new link across Lake Lothing, in addition to the two existing crossings. This will provide a high quality, alternative route choice for business users and transport providers and will significantly improve journey times. Congestion at the existing crossings will be reduced as a result of the new crossing. Tailbacks will reduce when the Bascule Bridge opens to water traffic, as the Third Crossing will provide extra capacity and alternative route choice for users. The economic benefits to business users are highlighted by the highly positive TUBA results. Transport providers may also experience revenue benefits from increased patronage on routes into the town centre, because of improved journey reliability.	Value of journey time changes (£)	£26.4m	-	£222,211,000		
	Net journey time changes (£)		0 to 2min	2 to 5min				> 5min
	£4,826,000	£7,286,000	£14,299,000					
	Reliability impact on Business users	The reliability of journey times around Lowestoft will be improved by adding to the route choice for business users. In particular, congestion will reduce on the approaches to the existing bridges, which will reduce journey times between the north and south of Lake Lothing. Total reliability benefits have been calculated, and have a present value of £79,752,211. They have not been calculated separately for business and commuting/other users, so the total has been allocated in the same proportions as the journey time benefits, giving an estimated £41,414,246 of benefits to business users. The calculation will be reviewed in the Full Business Case.	N/A			-	£41,414,246 estimated	
Regeneration	The footprint of the Third Crossing site falls into the SSP3 area 'Kirkley Waterfront and Sustainable Urban Neighbourhood', as defined by the Lake Lothing and Outer Harbour Area Action Plan. This could help to kick-start the development of 1,440 residential units, 12 hectares of employment land and a primary school. The crossing would also help support the growth in trips associated with the development. By alleviating the main traffic issues in Lowestoft, the Third Crossing has the potential support the regeneration of the local economy.	Journey time and VOC savings, which already contribute to the PVB, will support regeneration.			Moderate beneficial	-		
Wider Impacts	By supporting and improving the wider transport infrastructure in Lowestoft, the Third Crossing could have positive economic impacts for the Port and town centre, as the traffic issues that have previously deterred businesses from being attracted to the town are overcome. The scheme will support the 'Vision' of the Lake Lothing and Outer Harbour Area Action Plan and also the aims identified by Policy CS15 in Waveney's Core Strategy.	Very large wider impacts have been calculated using WITA. These will be reviewed for the FBC and are not included in the BCR calculations.			-	>£4 million		
Environmental	Noise	A number of increases in noise levels at dwellings adjacent to the alignment option are anticipated, however a larger number of reductions are likely adjacent to routes which are relieved by the scheme. <u>Increases</u> predicted along Long Road, Tom Crisp Way, The Avenue, Peto Way, Rotterdam Road, Norwich Road, Avondale Road, and Love Road. <u>Decreases</u> predicted along the A146, Bridge Road, Normanston Drive, Colville Road, Highland Way, the A1144, Katwijk Way, Denmark Road, and along the A12 from Yarmouth Road to Waveney Road There is no monetised appraisal information to present, but this will be undertaken for the preferred option as part of any FBC application.	To be provided in the FBC			Slight adverse	To be provided in the FBC	
	Air Quality	No AQMA designated within or near to the study area. Background mapped air pollutant concentrations are well below national objective values. Max roadside PCM concentrations 2015: 23.7 µg/m3; 2020: 16.3 µg/m3 Overall neutral local and regional air quality impact considered most likely based on a qualitative traffic data review (2020 Do Minimum vs Do Something)	8,532 sensitive receptors with potential for adverse local air quality 13,236 sensitive receptors with potential for local air quality benefit 60,866 receptors with potential for neutral local air quality impact			Neutral	To be provided in the FBC	
	Greenhouse gases	GHG emissions associated with traffic in the Do Something scenario are predicted to be lower than the Do Minimum scenario over the same appraisal period. Therefore, a greenhouse gas benefit is predicted.	Change in non-traded carbon over 60y (CO2e)	-84,760 t	-	£3,916,000		
			Change in traded carbon over 60y (CO2e)	-144 t				
	Landscape	N/A	N/A			N/A	N/A	
	Townscape	Bascule road bridge crossing across the central waterspace; elevated road approaches towards the bascule bridge; some displacement of land use on north bank. The elevated bridge approaches would have some influence on emerging land use and townscape south of the lake. The bascule crossing would represent some sub-division of the open waterspace associated with North Quay.	N/A			Slight Adverse	-	
	Historic Environment	The option would bisect Lake Lothing resulting in a moderate adverse impact on the character of the historic landscape and a slight adverse impact on the setting of the Port House. The option would have neutral impact on a listed building located c.300m to the north. The option has the potential to have a major adverse impact on unknown sub-surface heritage assets including palaeoenvironmental remains.	N/A			Slight Adverse	-	
	Biodiversity	The route passes through suitable reptile and nesting bird habitat, and is within 0.5km of known populations of reptiles. There are also buildings with 50m of the proposed alignment that could offer suitable bat roosting sites. These protected species may therefore be affected. At this stage, an initial assessment of moderate adverse has been given. However, once assessment of these populations have been made and potential mitigating activities completed the overall result should not exceed a slight adverse effect.	N/A			Moderate Adverse	-	
Water Environment	Approximately 500m of flood plain is crossed and the southern connection with the existing road network crosses areas of flood zone 2. The flood plain is heavily developed with urban environments and artificial surfaces where the scheme crosses land. 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. Any road cuttings required may impact local aquifers during construction. Increase in flood risk along all watercourses due to increase in run-off and reduction of floodplain. Short term impact in navigation of Lake Lothing during construction. Major compensation of the flood plain is likely to be required.	N/A			Moderate Adverse	-		
Social	Commuting and Other users	Value of journey time changes (£)		£53.7m	-	£205,705,000		
		Net journey time changes (£)						
		0 to 2min	2 to 5min	> 5min				
		£8,959,000	£15,938,000	£28,769,000				

	Reliability impact on Commuting and Other users	Strategic traffic on the highway network in Lowestoft and in the vicinity of Lake Lothing will experience less incidences of congestion and will therefore be able to maintain higher speeds around the town. This will be due to alternative route choice for commuters and other users, as well as less congestion on the approaches to the existing crossings. This in turn will create shorter journey times and will significantly improve journey reliability. Total reliability benefits have been calculated, and have a present value of £79,752,211. They have not been calculated separately for business and commuting/other users, so the total has been allocated in the same proportions as the journey time benefits, giving an estimated £38,337,965 of benefits to commuting and other users. The calculation will be reviewed in the Full Business Case.	N/A	-	£38,377,965 estimated	
	Physical activity	There will be improvements to physical activity in Lowestoft as the Third Crossing incorporates both a safe and segregated footway / cycleway on each side of the carriageway, which adds an attractive route choice for active mode users crossing Lake Lothing. Active modes benefits have been quantified and monetised in line with WebTAG	N/A	-	£8,498,496	
	Journey quality	Transport users will experience enhanced journey quality as Lowestoft's highway network is improved and alternative route choice across Lake Lothing is increased. Shorter journey times (and therefore saved travel hours) will also contribute to this improvement.	N/A	-	N/A	
	Accidents	A reduced number of accidents on the highway network (particularly primary transport corridors) in and around Lowestoft will result from the addition of a new, high quality crossing over Lake Lothing, and therefore the redistribution of some strategic traffic to this new route (from the primary transport corridors). The COBALT results predict this saving in a monetary terms.	Saving of 289 accidents and 392 casualties predicted by COBALT	-	£14,985,100	
	Security	Transport users will be less vulnerable to crime, as higher speeds and less incidences of 'stopping' (with reduced congestion) will occur as a result of the scheme. Lighting will also be installed on the new crossing and approaches to improve safety and ambience.	N/A	Slight beneficial	N/A	
	Access to services	The provision of new junction links at either end of the Third Crossing will enable greater access to the Kirkley Waterfront and Sustainable Urban Neighbourhood to the south of Lake Lothing, as well as the North Quay Retail Park to the north, which combined, will serve Lowestoft as major employment hubs in the future. More reliable public transport services and greater active mode choice will also improve access to the town's services.	N/A	Moderate beneficial	N/A	
	Affordability	Consumers will benefit from significant savings in vehicle operating costs through decreased journey times and reduced congestion. Improved cycling infrastructure could make travel-to-work cycling a cheaper alternative to single occupancy car trips.	N/A	Moderate beneficial	N/A	
	Severance	The Third Crossing will reduce severance between north and south Lowestoft and between the community and services, benefiting drivers and, through the provision of segregated footways, pedestrians and cyclists.	N/A	Large beneficial	N/A	
	Option and non-use values	The improved reliability of journey times for public transport services will enhance the values placed upon these services, a consequence of the scheme.	N/A	Slight beneficial	N/A	
Public Accounts	Cost to Broad Transport Budget	These consist of the scheme investment costs and operating costs (i.e. annual maintenance costs and capital renewal costs).	N/A	-	£64,909,348	
	Indirect Tax Revenues	Reduced indirect tax revenues as a result of reduced fuel spends.	N/A	-	£10,603,000	