Appraisal Summary Table

Date produced:	19/04/2018	**Contact:**	
Name of scheme:	Wichelstowe Southern Access scheme (WSA)	**Name**	Tim Mann
Description of scheme:	The WSA is required as part of Condition 42 of the planning permission for the Wichelstowe development to provide a fourth access to the site in the form of an under-bridge below the M4 and associated links to the south and north of the under-bridge. The condition restricts the number of dwellings to 2,500 until the scheme is complete. The scheme will unlock an additional 2,000 dwellings and 12.5 Ha of employment. The scheme is located to the south west of Swindon, straddling the M4 motorway to the east of Junction 16.	**Organisation**	SBC
		Role	Promoter/Official

Impacts		Summary of key impacts	Assessment: Quantitative	Assessment: Qualitative	Assessment: Monetary £(NPV)	Assessment: Distributional 7-pt scale/ vulnerable grp
Economy	Business users & transport providers	The scheme leads to journey time benefits to road users as a result of improvements provided by the scheme on the local network. The scheme provides relief on key existing roads such as Wharf Road. Improvements in journey time reliability are also experienced by all users. TUBA has been used to calculate scheme benefits including journey time benefits.	Value of journey time changes(£): £11.267m Net journey time changes (£): < 2min £6.285; 2 to 5min £4.896; > 5min £0.086	Moderate Beneficial	£11.267m	Not assessed
	Reliability impact on Business users	The scheme would result in improved journey time reliability associated with reduced congestion on the local network. It has been estimated that £0.331m will accrue to business users	£0.331m	Slight Beneficial	£0.331m	
	Regeneration	The scheme will improve access to Wichelstowe and unlock development, from the permitted 2,500 residential units, to 4,500 dwelling units, as well as unlock 12.5Ha of employment.	Not assessed	Slight Beneficial	N/A	
	Wider Impacts	The scheme will provide additional capacity to allow the Wichelstowe development to come forward beyond the consented 2,500 dwelling units. This includes commercial and residential development, with resulting increase in labour supply although no monetary value has been estimated for this. The Wichelstowe Southern Access scheme, will transform the Wichelstowe area in terms by enabling growth and employment.	Not assessed	Slight Beneficial	N/A	
Environmental	Noise	The scheme is unlikely to have a noise impact on households as where the largest reductions in traffic occur there are no identified receptors. There will potentially be a slight increase in noise during construction. These impacts will need to be managed by the contractor during construction.	Not assessed	Slight Adverse	N/A	Not assessed
	Air Quality	The impacts of scheme generated traffic on concentrations of nitrogen dioxide, PM10 and PM2.5 have not been assessed.	Not assessed	Neutral	N/A	Not assessed
	Greenhouse gases	Reduction in greenhouse gases associated with improved traffic flow.	Change in non-traded carbon over 60y (CO2e): -12,835 tonnes Change in traded carbon over 60y (CO2e): -17 tonnes	Slight Beneficial	£0.578m	
	Landscape	The landscape and visual impact of the consented M4 under-bridge have already been assessed in the 2003 ES and retain status quo accepted by the existing planning consent. The mitigation proposed as part of the Wichelstowe development and under-bridge construction would help to locally improve the landscape quality.	Not assessed	Neutral	N/A	
	Townscape	The scheme is not likely to impact significantly on the townscape and hence impacts on landscape do not require a detailed assessment .	Not assessed	Neutral	N/A	
	Historic Environment	There are no known heritage assets of the following type that will be directly affected by the scheme: World Heritage Site; Scheduled Ancient Monument, Registered Park and Garden, Registered Battlefield, Conservation Area , and Listed Building(s).	Not assessed	Neutral	N/A	
	Biodiversity	Hedgerow/woodland habitats, ditches, streams habitats and grass land and road verges have the potential to be impacted.	Not assessed	Adverse	N/A	
	Water Environment	The scheme will lead to an increase in surface water run-off as a result of the increase in an impermeable area. A surface water drainage strategy may be required.	Not assessed	Slight Adverse	N/A	
Social	Commuting and Other users	The scheme leads to journey time benefits to road users as a result of improvements provided by the the scheme on the local network. The scheme provides relief on key existing roads such as Wharf Road. Improvements in journey time reliability are also experienced by all users. TUBA has been used to calculate scheme benefits.	Value of journey time changes(£): £29.185m Net journey time changes (£): < 2min £16.397; 2 to 5min £12.782; > 5min £0.006	Large Beneficial	£29.185m	Not assessed
	Reliability impact on Commuting and Other users	The scheme would result in improved journey time reliability associated with reduced congestion on the local network estimated at £0.818m of which £0.488m is estimated to accrue to commute and other users. The dependent development would adversely impact on reliability to the value of $3.14m, and this has been accounted for as part of transport externality of the dependent development impacting on planning gain.	£0.488m	Slight Beneficial	£0.488m	
	Physical activity	It is not anticipated that the scheme will impact significantly on active modes and hence physical activity.	Not assessed	Neutral	N/A	
	Journey quality	An additional access to Wichelstowe will ease pressure on the local network thus offering some improvement on journey quality.	Not assessed	Beneficial	N/A	
	Accidents	Accident savings for general highway traffic benefits have been assessed using COBA-LT. The assessment indicates that the scheme will result in accident benefits to the sum of £7.811m. . The casualties saved by the scheme include 2.9 fatalities, 25.6 serious and 194.9 slight.	£7.811m	Slight Beneficial	£7.811m	Not assessed
	Security	No changes to security along the route are expected, so this has not been analysed	Not assessed	Neutral	N/A	Not assessed
	Access to services	The scheme will improve connectivity of Wichelstowe to the wider network and hence access to services outside the development. This is not considered a 'step-change' as the development already benefits from existing access points or connections.	Not assessed	Beneficial	N/A	Not assessed
	Affordability	No significant impacts are anticipated on affordability.	Not assessed	Slight Beneficial	N/A	Not assessed
	Severance	The scheme is not expected to cause significant severance. Pedestrian facilities would be provided that minimised severance for pedestrians.	Not assessed	Slight Disbenefit	N/A	Not assessed
	Option and non-use values	It is not considered that the scheme will fundamentally change the availability of transport services within the study area and so option values will not be assessed.	Not assessed	Neutral	N/A	
Public Accounts	Cost to Broad Transport Budget	Investment costs have been estimated at £28.207m in 2010 prices discounted to 2010. This does not include any developer contributions which are a saving to the government or any maintenance/renewal costs of the scheme which is a cost to the public sector. When developer contributions of £4.895m and the discounted whole life/operating costs of £2.876m are taken into account, the investment costs incurred by government are £26.188m.	Broad Transport Budget is £26.188m	n/a	£26.188m	
	Indirect Tax Revenues	These have been assessed in TUBA over a 60 year period and have been estimated to fall by £1.274m as a result of reduced congestion and improved fuel efficiency.	Indirect Tax Revenue are estimated at £1.274m	Slight Adverse	-£1.274m	