

Melton Mowbray Distributor Road

APPENDIX I

Appraisal Summary Table (AST)



Appraisal Summary Table				Date produced:		14	12	2017	Contact:	
Name of scheme:		Melton Mowbray Distributor Road							Name	Ian Vears
Description of scheme:		The scheme is a 6.9km single carriageway road from the A606 Nottingham Road at the north-western edge of Melton Mowbray to the A606 Burton Road in the south. The scheme will create new junctions with the radials on its route and provide crossings over the railway line and the River Eye. Walking and cycling facilities are to be provided alongside the carriageway for the full extent of the route. The scheme will provide congestion relief in the town and support housing development to the North and South of Melton, as well as employment growth.							Organisation	Leicestershire County Council
									Role	Promoter
Impacts		Summary of key impacts		Assessment						
				Quantitative		Qualitative		Monetary £(NPV)		Distributional 7-pt scale/ vulnerable grp
Economy	Business users & transport providers	The scheme will improve journey times for through traffic by providing an alternative route avoiding the town centre, which in turn reduces congestion within the town centre and improves journey times for travel within Melton Mowbray.	Value of journey time changes(£)		£44.8m		N/A	£40.6m [Highway User Benefits: £47.9m Construction Delays: -£0.025m Developer contributions: -£7.4m]	See "Commuting and Other users"	
			Net journey time changes (£)							
			0 to 2min	2 to 5min	> 5min					
			£20.9m = £30.1m-£9.2m	£20.8m = £22.3m-£1.5m	£3.1m = £3.4m-£0.3m					
	Reliability impact on Business users	The scheme will reduce traffic within the congested urban area, leading to an improvement in journey time reliability.	Reduced delays (by between 5% and 10% within Melton Mowbray in 2036) and volume:capacity ratios result in forecast times being closer to free-flow times, producing journey time reliability benefits.			N/A	£2.4m			
	Regeneration	The scheme will lead to a significant improvement in accessibility, resulting in further businesses and households wanting to locate in the Borough. In turn this increases demand and development viability.	LUTI modelling demonstrates that accessibility improvements delivered by the scheme will lead to an additional 762 jobs in Melton by 2036.			Indirect benefits also support expansion plans of existing businesses, and the continued growth of the town's significant visitor economy.	£21.6m			
	Wider Impacts	The scheme will lead to agglomeration benefits, labour supply and imperfect competition benefits for existing businesses and residents in Melton Mowbray as a function of enhanced accessibility promoted by the scheme. These have been calculated using DfT's WITA approach.	Agglomeration: £16.14m More People in Work: £0.6m Increased output in imperfectly competitive markets: £4.79m			N/A				
Environmental	Noise	No households are forecast to experience daytime traffic noise levels >80 dB L _{Aeq,16h} (façade) in the opening year (2021) or the forecast year (2036). 3 households are identified as potentially qualifying under the Noise Insulation Regulations. The scheme results in the transfer of traffic from the A606 through the centre of the town onto the distributor road. 8,312 residential households are located in the DMRB noise study area. 35 households are predicted to experience a major increase in traffic noise consisting of 1 individual property north of Saxby Road, 2 on the edge of Thorpe Arnold and 32 on the northern edge of the town east of Scafford Road. 3% of households experience a moderate increase in traffic noise in the short term primarily on the north and east sides of the town closest to the new road, Thorpe Arnold and Burton Lazars, and 41% a minor or negligible increase. 8% of households experience no change in the short term and 47% a negligible or minor reduction. 42 non-residential sensitive receptors have been identified in the study area, 1 school on the northern edge of the town, west of Scafford Road, experiences a moderate increase in traffic noise, 14 experience a negligible or minor increase, 4 no change and 23 a negligible or minor reduction.	Households increased daytime noise forecast year: 822 Households decreased daytime noise forecast year: 789 Households increased night-time noise forecast year: 38 Households decreased night-time noise forecast year: 479			N/A	£3.8m	<u>Income Bands</u> Low Income *** Medium Income ** High Income * <u>Vulnerable Groups</u> Children - Young people - Older people -		
	Air Quality	There are no Air Quality Management Areas (AQMAs) within the study area. As a result of the scheme, no receptors are predicted to experience an increase of more than 0.4 µg/m ³ in NO ₂ with concentrations of NO ₂ above the objective value of 40 µg/m ³ . Regional emissions of PM ₁₀ are predicted to increase by 0.2 tonnes/year in the proposed scheme opening year. Regional emissions of NOx are predicted to increase by 3.4 tonnes/year in the opening year.	For PM ₁₀ air quality will be improved at 3,855 properties, stay the same at 4 properties and worsen at 1,668 properties. For NO ₂ air quality will be improved at 4,219 properties, stay the same at 0 properties and worsen at 1,308 properties. Net Total Assessment score for PM ₁₀ : -235.22. Net Total Assessment score for NO ₂ : -1,157.65			N/A	£0.6m	<u>Income Bands</u> Low Income ✓✓ Medium Income ✓✓ High Income ✓ <u>Vulnerable Groups</u> Children ✓ Young people ✓		
	Greenhouse gases	Greenhouse gases, assessed using TUBA, are forecast to increase with the scheme in place. This is as a result of changes in forecast average trip speeds and trip-lengths which lead to an increase in fuel consumption with the introduction of the scheme.	Change in non-traded carbon over 60y (CO2e)		+150,782		N/A	-£6.8m		
			Change in traded carbon over 60y (CO2e)		+972					
		Landscape	The landscape character consists predominately of a mix of farmland, river valley and urban fringe. The scheme impacts include an increase in visibility of highway infrastructure, landform modification, loss of land and vegetation. The impact is most noted within the floodplain of the River Eye where the new road will be on embankment. At year 15, landscape and visual effects will be reduced due to the maturing vegetation.	N/A			Slight adverse	N/A		
		Townscape	The scheme will have very little/no effect on the character of the townscape, given that it will not directly impact the townscape of Melton Mowbray and intervisibility will be limited. There is likely to be a reduction in through traffic which will beneficially impact townscape and visual amenity of receptors in Melton Mowbray.	N/A			Neutral	N/A		
	Historic Environment	There are three scheduled monuments within the study area St Mary and St Lazarus Hospital, Sysonby Grange and a moated grange at Spinney Farm. The scheme will potentially have an effect on the setting of these assets. There are also 13 listed buildings within the study area, one grade I listed, two listed at grade II* and ten listed at grade II. These include churches and farm houses, as well as other building types. There is potential for negative effects on the setting of listed buildings along the length of the scheme. There are no other heritage designations in close proximity to the scheme. There is potential for significant negative physical effects on both previously recorded heritage assets and previously unidentified archaeological deposits with the footprint of the scheme.	N/A			Moderate adverse	N/A			

	Biodiversity	The scheme has the potential to generate a range of effects upon statutory and non-statutory designated sites, habitats and protected species (in particular the potential for large adverse effects upon the River Eye SSSI). However, with the implementation of appropriate avoidance measures, and mitigation to support and enhance the restoration of the River Eye SSSI it is predicted that this effect can be reduced to, at worse, a minor negative impact, but with appropriate support and implementation, a slight positive impact. A scheme wide mitigation strategy will aim to deliver no net loss to biodiversity within the extent of the proposed scheme boundary, including mitigating for potential adverse effects on bats, badgers and great crested newts, through avoidance measures and scheme design to support animal crossings points. When these measures are considered the scheme has a slight adverse effect on biodiversity, that are not significant, in the medium to long term.	N/A	Slight adverse	N/A													
	Water Environment	The main impact of the scheme on the water environment will result from morphological impacts relating to watercourse crossings, and the option to divert the River Eye which is a SSSI. Diversion to the River Eye would have significant impacts in terms of morphology, however, a diversion may also represent a potential opportunity to implement and augment parts of the River Eye restoration strategy and help restore the river which was assessed as 'non-improvement' in 2010. The river will only be diverted if it can be demonstrated that this will provide enhancement of the river and support WFD and SSSI objectives (i.e. have a beneficial effect). However, any such benefit has been discounted at this stage of the assessment at it is yet to be agreed. Other than minor watercourses, open span structures are proposed to convey the road across watercourses, the design and span of which will take account of flood risk, morphology and ecological considerations. Road runoff will be treated by SuDS. The scheme will include attenuation features to ensure no increase in runoff as a result of the increased impermeable areas and hence no detrimental increase in flooding potential in receiving catchments. If the diversion option is not taken there is considered to be an overall Slight Adverse score resulting from morphological impacts to watercourses resulting from new crossing structures and/or culverting.	N/A	Slight adverse	N/A													
Social	Commuting and Other users	The scheme will improve journey times for through traffic by providing an alternative route avoiding the town centre, which in turn reduces congestion within the town centre and improves journey times for travel within Melton Mowbray.	<table><tr><td colspan="2">Value of journey time changes(£)</td><td>£72.7m</td></tr><tr><td colspan="3">Net journey time changes (£)</td></tr><tr><td>0 to 2min</td><td>2 to 5min</td><td>> 5min</td></tr><tr><td>£34.8m = £43.3m-£8.6m</td><td>£33.4m = £33.7m-£0.3m</td><td>£4.5m = £4.5m - £0m</td></tr></table>	Value of journey time changes(£)		£72.7m	Net journey time changes (£)			0 to 2min	2 to 5min	> 5min	£34.8m = £43.3m-£8.6m	£33.4m = £33.7m-£0.3m	£4.5m = £4.5m - £0m	N/A	£61.2m [Highway User Benefits (commute): £26.9m Construction Delays (commute): -£0.013m Highway User Benefits (other): £34.4m Construction Delays (other): -£0.065m]	<u>Income Bands</u> Low Income ✓ Medium Income ✓✓ High Income ✓✓✓
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	Reliability impact on Commuting and Other users	The scheme will reduce traffic within the congested urban area, leading to an improvement in journey time reliability.	Reduced delays (by between 5% and 10% within Melton Mowbray in 2036) and volume:capacity ratios result in forecast times being closer to free-flow times, producing journey time reliability benefits.	N/A	£4.8m													
	Physical activity	Melton Mowbray has high existing levels of walking and cycling. The scheme will deliver further dedicated walking and cycling infrastructure around the town; with new routes opening up for cyclists in particular and encouraging additional active mode use.	The scheme results in a rise in cyclist demand of over 4%, or 16,426 new annual cycle trips.	Physical fitness, safety and reduced highway vehicle-kms result from the additional active mode demand.	£0.34m													
	Journey quality	The proposed scheme reduces traffic within the congested urban area, and therefore driver stress. Additional, dedicated cycling facilities also create further cycling demand and journey quality improvements.	Reduction in traveller stress due to reduced queuing and delays for vehicle traffic, and dedicated cycling infrastructure for cyclists.	Large beneficial	N/A													
	Accidents	Forecast reductions in accidents on the existing road network are outweighed by additional accidents forecast as a result of traffic assignment nd increases in traffic levels overall through the area of influence.	The scheme is forecast to increase accidents by around 70 (or around 1%), with a forecast increase of 5 fatalities, 23 serious injuries and 115 slight injuries over the 60 year appraisal period.	N/A	-£7.7m	<u>Vulnerable Groups</u> Children ✓✓ Young people ✕✕ Older people ✕ Pedestrians ✓✓ Cyclists ✓✓ Motorcyclists ✕												
	Security	There a no changes in public transport waiting facilities, pedestrian access, provision of lighting and visibility, landscaping or surveillance.	N/A	Neutral	N/A	N/A												
Access to services	These scheme will result in congestion reduction in Melton town centre, and enhance the accessibility to services located in the town centre for Melton residents, and those from further afield.	N/A	Slight beneficial	N/A	N/A													
Affordability	There are no changes in parking charges, car fuel and non-fuel operating costs, road user charges or public transport concession availability.	N/A	Neutral	N/A	N/A													
Severance	The scheme will reduce severance due to the provision of new facilities for pedestrians and cyclists, and reduced traffic volumes within the town centre.	N/A	Slight beneficial	N/A	N/A													
Option and non-use values	The scheme will not substantially change the availability of transport services within the study area.	N/A	Neutral	N/A														
Public Accounts	Cost to Broad Transport Budget	Scheme costs, including QRA assessment, optimism bias, monitoring and evaluation, and maintenance have been calculated in 2010 prices and values following WebTAG. This scheme cost includes the incremental scheme cost above that included in the do-minimum scenario	Central government investment costs: £47.7m Local government investment costs: £3.2m Third party contributions: £7.4m	N/A	£43.5m													
	Indirect Tax Revenues	Forecast increase in travel speeds and distances associated with the scheme lead to increased fuel consumption, which in turn leads to an increase in tax revenues.		N/A	£14.7m													