

Appraisal Summary Table

Date produced:

15/04/2020

Contact:

Name of scheme:		A1 Birtley to Coal House Stage 3				Name				
Description of scheme:		The BCH section of the A1 is approximately 6.5km in length and the existing carriageway comprises: - Southbound: Two lanes between Coalhouse (Junction 67) and Eighton Lodge (Junction 66) with an additional climbing lane between Smithy Lane and Eighton Lodge and three lanes between Eighton Lodge and Birtley (J65). - Northbound: Two lanes with a lane gain/lane drop between Birtley and Eighton Lodge and two lanes between Eighton Lodge and Coalhouse. This option provides an Allerdene Bridge replacement with a single span steel bridge (approximately 62m in length). The height of the bridge and road at this section would also be raised to ensure the bridge meets current standards. Price base is 2010. (£000)				Organisation		Highways England		
						Role		Promoter/Official		
Impacts		Summary of key impacts		Assessment						
				Quantitative			Qualitative	Monetary £(NPV)	Distributional 7-pt scale/ vulnerable grp	
Economy	Business users & transport providers	The scheme provides significant benefits for Business users and transport providers. Economic benefits for business users and transport providers were calculated using the DfT's TUBA software (which incorporates the latest economic parameters published in WebTAG DataBook. Benefits for business users and transport providers are significantly from net journey time changes of between 0 and 2 min.		Value of journey time changes(£)		£174,351		N/A	£125,727	IMD Income bands: 0-20% - slight beneficial 20-40%, 40-60% & 80-100% -moderate beneficial 60-80% - large beneficial
			Net journey time changes (£)							
			0 to 2min	2 to 5min	> 5min					
			£130,543	£38,504	£5,304					
	Reliability impact on Business users	Reliability impacts were calculated using MyRIAD software. The monetary figure shown here represents total reliability benefits for business.		N/A			N/A	£7,060		
	Regeneration	The scheme supports the development aspirations within the Newcastle City Council and Gateshead Council local plans including a significant level of housing growth. The scheme specifically supports the Team Valley Employment area.		N/A			N/A	N/A		
	Wider Impacts	Wider Impacts, i.e. economic impacts of transport that are additional to transport user benefits, were calculated in accordance with WebTAG Unit A2.1 These Impacts include: agglomeration; output change in imperfectly competitive markets; and tax revenues arising from labour market impacts. The WITA showed that the scheme will produce significant employment-related benefits focused in the Gateshead area.		Wider impacts Present Value Benefits (PVB) show 60% of TEE.			Large beneficial	£146,330		
Environmental	Noise	Thin Surface Course System (TSCS) reduces road noise across the area. Noise barrier near Birtley improves Noise Important Area (NIA) 2541. Small improvements at NIA 6633 as a result of TSCS and minor realignment of Junction 67 (Coal House). No Change/Neutral effects at the remaining NIA's within or overlapping the 1km boundary (2449, 2450, 2453, 2454, 2498, 6629, 6630, 6631, 6632, 6634, 10048).		141 dwellings with an increase in noise level. 1437 dwellings with a decrease in noise level.			N/A	£6,876	Moderate Beneficial for all income bands	
	Air Quality	Overall there is a net worsening in air quality and a negative impact on regional NOx emissions. There are no PCM links exceeding the limit value. The Scheme does not result in any limit value exceedances or worsen any existing exceedances.		Assessment Score: PM10: -16.79 NO2: -64.71 Emissions NOx: +260 tonnes			N/A	PM10 concentration: £0.78 NOx emissions: -£2,375 Air quality: -£2,298	IMD income bands: 0-20% & 60-80% - large beneficial 20-40%, 40-60%, 80-100% - large Adverse	
	Greenhouse gases	No traded sector emissions. Majority of change is driven by increase in vehicle kilometres travelled.		Change in non-traded carbon over 60y (CO2e)		250,456	N/A	NPV: -£11,234		
					Change in traded carbon over 60y (CO2e)		0			
	Landscape	Largely on line widening but with wider footprint of the carriageways extending the existing highway boundary. Noticeably changed profile and appearance of Allerdene Bridge. It is anticipated to represent a minor material change to the existing landscape character due to the scale of the new Allerdene Bridge within the influence already exerted by the A1 corridor and associated traffic movements.		N/A			Slight Adverse	N/A		
	Townscape	Townscape has been scoped out on the grounds that material impacts would be constrained to the existing corridor and the effect the Scheme would have on the perception of the open countryside.		N/A			N/A	N/A		
	Historic Environment	Physical effects on earthworks, below ground heritage assets and above ground structures that includes a section of the scheduled site of Bowes Railway. Mitigated though an appropriate archaeological investigation. Effects on the setting of designated assets, including Lettings of Lamesley Village Conservation Area (11883) and the Grade II Listed assets of St. Andrew's Church (1025154) and Temple Meads (1025153). Impact upon views into and across the agricultural landscape, therefore affecting the significance of the heritage assets. Impact on the context of the heritage assets. Beneficial effects on the setting of the locally listed Angel of the North.		N/A			Moderate Adverse	N/A		
	Biodiversity	Direct impacts on Bowes Bowes Railway and Long Acre Wood Local Wildlife Sites. Impacts on woodland, neutral grassland, hedgerows, fish, watercourses, bats and wintering birds reduced with mitigation. Removal of invasive species.		N/A			Slight Adverse	N/A		
Water Environment	Scheme largely elevated above the flood plain. Wider piers required on the Kingsway Viaduct resulting in loss of floodplain which would be compensated. Culvert on the Allerdene Burn to be upgraded to remove impact on flows, section of channel relocated and enhanced for low flow conditions. Enhancement of water quality.		N/A			Slight Beneficial	N/A			
Social	Commuting and Other users	The Scheme provides significant benefits for commuters and other users. Economic benefits for business users and transport providers were calculated using the DfT's TUBA software (which incorporates the latest economic parameters published in WebTAG DataBook. Benefits for commuters and other users are significantly from net journey time changes of between 0 and 2 min.		Value of journey time changes(£)		£181,470		N/A	£115,488	IMD Income bands: 0-20% - slight beneficial 20-40%, 40-60% & 80-100% -moderate beneficial 60-80% - large beneficial
			Net journey time changes (£)							
			0 to 2min	2 to 5min	> 5min					
			£133,326	£40,035	£8,109					
		Reliability impact on Commuting and Other users	Reliability impacts were calculated using MyRIAD software. The monetary figure shown here represents total reliability benefits for Commuting and Other Users.		N/A			N/A	£9,564	
		Physical activity	Due to the strategic nature of the scheme improvements, it is not expected that the level of walking or cycling will be affected.		N/A			Neutral	N/A	
		Journey quality	Greater reliability and a decrease in driver frustration, other factors do not change.		N/A			Slight Beneficial	N/A	
		Accidents	COBALT has been used to assess the impact of the scheme on accidents. Overall neutral impact.		Accidents saved by scheme: fatal: 3.4 serious: 41.5 slight: 338.4			Slight Beneficial	£12,949	Slight beneficial for all vulnerable groups.
		Security	There is no expected change in perceptions of security with the scheme.		N/A			Neutral	N/A	Not assessed.
		Access to services	The availability of Public Transport services and access to essential services will not be affected by the scheme.		N/A			Slight Beneficial	N/A	Not assessed.
		Affordability	Personal affordability is likely to change as a result of fuel and non-fuel operating cost due to rerouting and changes in journey speeds.		The scheme is expected to make a slight impact on personal affordability.			Slight adverse	-£3,319	Slight adverse for all income bands.
		Severance	The level of severance experienced by the local population is not expected to change with the scheme.		N/A			Neutral	N/A	Not assessed.
	Option and non-use values	The scheme does not involve the loss or introduction of a new mode of transport, therefore option values are unaffected. The alternative modes of transport available to households are in the main based around bus services. Some communities are also linked to central Newcastle via the Tyne & Wear METRO system.		N/A			Neutral	N/A		
Public Accounts	Cost to Broad Transport Budget			Central Government costs are £154,308			N/A	£154,308		
	Indirect Tax Revenues			Central Government Funding: Wider Public Finances: £12,645			N/A	£12,645		