

Appraisal Summary Table

Option: A419 Commonhead Junction Improvement		Description: Grade separated junction with a new free flowing A419 passing over existing roundabout	Problems: High level of congestion particularly at peak times and high accident rate on roundabout approaches	Scheme Cost £16.01 m
OBJECTIVE	SUB-OBJECTIVE	QUALITATIVE IMPACTS	QUANTITATIVE ASSESSMENT	ASSESSMENT
ENVIRONMENT	Noise	Overall improvement due to the scheme. Mitigation measures have been designed to reduce impacts wherever possible. Perceptible increase of less than 3dB only at the hospital	Do minimum 113 people annoyed, Do something 100 people annoyed	Estimated population annoyed by noise - 13 people less.
	Local Air Quality	Does not affect an AQMA. No predicted exceedences of the objective. No significant increases in PM ₁₀ concentrations or NO ₂ concentration.	260 properties with an improvement, 0 properties with a deterioration.	PM ₁₀ = -83.7, NO ₂ = -252.9
	Greenhouse Gases	Increase due to increase in speed on the main carriageway	Neutral (0.35% increase in Swindon)	768 tonnes CO2 increase
	Landscape	The scheme would be constructed within the existing highway boundary, although land would be required for the construction of the noise mitigation. The central reserve and roundabout tree belts which would be reduced make an important contribution in defining the urban edge alongside the North Wessex Downs AONB. Supplementary and replacement planting would minimise the impact.		Slight Adverse
	Townscape	No effect on Townscape		Neutral
	Heritage of Historic Resources	The scheme may result in the disturbance of a stretch of Roman road, if it survives, and would have a minor detrimental effect upon the rural historic landscape. These are considered to be slight adverse impacts of minor significance. There would be a slight adverse impact of minor significance on the setting of Liddington Castle, this would reduce to a neutral impact of neutral significance after 15 years.		Slight adverse
	Biodiversity	Habitat loss of scrub woodland within the existing highway boundary can not be fully mitigated. Higher traffic speeds could result in higher incidental mortality of animals attempting to cross the A419. However, there is little evidence of wildlife currently crossing the A419.		Slight adverse
	Water Environment	Features and elements present in the water environment are typical of the locality and the scheme will have negligible impacts on surface and ground water quality and flows.		Neutral
	Physical Fitness	Existing cyclist and pedestrian movements at the junction are small in number, the provision of a crossing could facilitate increased movements in the future.	<10 – Pedestrians, <10 – Cyclists	Minor health benefits
	Journey Ambience	One lay-by will be closed but suitable substitute facilities are available. There would be reduced driver frustration for over 40,000 daily vehicle movements.		Large Beneficial
SAFETY	Accidents	The removal of through traffic from the junction results in a reduction of accidents.	Accidents -197, Deaths -1.5, Serious -16.5, Slight -271	PVB £7.52m
	Security	The scheme would include improved lighting and visibility for non motorised users.		Slight beneficial
ECONOMY	Public Accounts		Investment cost= £13.672m, Indirect tax revenues = -£38.29m	PVC -£24.62m
	Transport Economic Efficiency: Business Users & Transport Providers	Commonhead Junction Improvement scheme provides benefits to Swindon. A BCR ratio of 4.66 is estimated.	Provides benefits to business users and transport of £15.57m. Travel time: 627 vehicle hours saved	PVB £15.57m
	Transport Economic Efficiency: Consumers	The scheme reduces congestion at the roundabout, reduces delays and also improves journey times.	Provides benefits to consumers of £2.39m	PVB £2.39m
	Reliability	Online improvement. Assessment based on reduction in congestion at improved junctions.		Slight beneficial
	Wider Economic Impacts	Not a regeneration area.	N/A	N/A
ACCESSIBILITY	Option values	No adverse impact.	N/A	N/A
	Severance	There will be a slight to moderate reduction in traffic severance and improved crossing facilities provided.		Slight beneficial
	Access to the Transport System	No impacts on alternative modes.	Neutral	Neutral
INTEGRATION	Transport Interchange	None.	N/A	N/A
	Land-Use Policy	The scheme will improve capacity and have beneficial effects on the southern side of Swindon. The location is on the boundary of an AONB, but the improvement is predominantly within the existing highway boundaries.		Beneficial
	Other Government Policies	The scheme assists in achieving other Government policies through contributing to economic prosperity and social integration in an environmentally responsible manner.		Beneficial