Comparison of 2006 Base Model versus 2012 Do-minimum (Reference) Model

Total Vehicle Hours 2006 - 2012

	2006 Base	2012 Ref Case	% Change
AM Peak	1,076	1,385	28.7%
PM Peak	1,354	1,782	31.6%
Sat Peak	1,477	2,240	51.7%

Average Vehicle Speed 2006 - 2012

.	2006 Base	2012 Ref Case	% Change
AM Peak	24.0	23.1	-3.7%
PM Peak	22.6	21.1	-6.5%
Sat Peak	21.1	17.0	-19.4%

Comparison of Options for STAG Part 2 Appraisal

AM Peak		
	Total Travel Hours	**Average Vehicle Speed (mph)**
Do-minimum	1,385	23.1
Option 4 (A)	1,312	24.4
Option 6 (B)	1,338	24.0
Option 13 (C)	1,306	25.1
Option 14 (D)	1,293	25.4
Option 15 (E)	1,283	25.2
Option 16 (F)	1,322	24.4
Option 17 (G)	1,329	24.2
PM Peak		
	Total Travel Hours	**Average Vehicle Speed (mph)**
Do-minimum	1,782	21.1
Option 4 (A)	1,669	22.5
Option 6 (B)	1,732	21.8
Option 13 (C)	1,609	23.9
Option 14 (D)	1,605	24.0
Option 15 (E)	1,596	23.9
Option 16 (F)	1,621	23.2
Option 17 (G)	1,684	22.5
SATURDAY		
	Total Travel Hours	**Average Vehicle Speed (mph)**
Do-minimum	2,240	17.0
Option 4 (A)	1,987	19.3
Option 6 (B)	2,089	18.4
Option 13 (C)	1,922	20.4
Option 14 (D)	1,908	20.7
Option 15 (E)	1,932	20.1
Option 16 (F)	1,805	21.3
Option 17 (G)	1,882	20.5

Environmental Summary (see Environmental Assessment Report for full details)

Option	**A**	**B**	**C**	**D**	**E**	**F**	**G**
Noise & Vibration							
NO2							
PM10							
CO2							
Water Quality, Drainage, Flood defence							
Geology							
Biodiversity							
Landscape							
Visual Amenity							
Agriculture & Soils							
Cultural Heritage							
Option	**A**	**B**	**C**	**D**	**E**	**F**	**G**

Major Adverse	Moderate Adverse	Minor Adverse	Neutral	Minor Beneficial	Moderate Beneficial	Major Beneficial
1	2		3	4		5

Economic Summary

Option Costs (2007 prices)

	A	B	C	D	E	F	G
Total	£13.9m	£26.1m	£51.2m	£57.9m	£61.4m	£32.4m	£47.4m

Total Benefits

	A	B	C	D	E	F	G
Consumers	£14.6m	£8.1m	£16.1m	£17.9m	£18.5m	£18.2m	£13.8m
Business	£8.9m	£4.9m	£10.2m	£11.6m	£12.0m	£9.7m	£7.4m
Carbon Benefits	£0.13m	£0.05m	£0.06m	£0.10m	£0.14m	£0.15m	£0.10
Developer Contributions	-£0.96m	-£0.96m	£0	-£0.96m	-£0.96m	-£0.96m	-£0.96m
Total	£22.6m	£12.1m	£26.4m	£28.6m	£29.7m	£27.1m	£20.3m

These are present values discounted to 2002, in 2002 prices, extracted from the TUBA model.

Monetised Summary

	A	B	C	D	E	F	G
PVB Benefits	£22.6m	£12.1m	£26.4m	£28.6m	£29.7m	£27.1m	£20.3m
PVC	£13.2m	£24.2m	£49.6m	£55.1m	£58.9m	£31.2m	£45.0m
NPV[1]	£9.4m	-£12.1m	-£23.2m	-£26.5m	-£29.2m	-£4.1m	-£24.7m
BCR[2]	1.70	0.50	0.53	0.52	0.50	0.86	0.45

These are present values discounted to 2002, in 2002 prices, extracted from the TUBA model.

[1] Net Present Value is defined as the discounted sum of all future benefits less the discounted sum of all future costs over the appraisal period.

[2] Benefit-Cost Ratio is a value for money measure, which indicates how much net benefit would be obtained in return for each unit of cost to the public sector, i.e. BCR = 2:1, £2 benefit per £1 cost.