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**Appendix 3.3**  
**Stage 1 Detailed**  
**Assessment Matrices**

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Stage 1 Engineering Assessment Matrix

Preliminary Route Options	Do Minimum	AC (Western)	AD (Western)	AF (Western)	AG (Western)	AH (Western)	AK (Western)	AL (Western)	AM (Western)	AA (Eastern)	AB (Eastern)	AE (Eastern)	AI (Eastern)	AJ (Eastern)	AN (Eastern)	AO (Eastern)
<b><u>Engineering Preference Scores for:</u></b>																
Length of Route																
Cut / Fill Balance	N/A															
Overtaking Opportunity																
No. of Main Rivers Crossed																
No. of Crossings with Existing Road Network																
Proximity to properties																
No. of Departures	N/A															
No. of Relaxations	N/A															
Intersections with Services/Utilities																
<b><u>Overall Engineering Preference Score</u></b>	<b>Low</b>	<b>Moderate</b>	<b>Low</b>	<b>Low</b>	<b>Low</b>	<b>Moderate</b>	<b>Moderate</b>	<b>Low</b>	<b>Low</b>	<b>Low</b>	<b>Moderate</b>	<b>High</b>	<b>Moderate</b>	<b>Low</b>	<b>Moderate</b>	<b>High</b>

Stage 1 Environment Assessment Matrix

Preliminary Route Options	Do Minimum	AC (Western)	AD (Western)	AF (Western)	AG (Western)	AH (Western)	AK (Western)	AL (Western)	AM (Western)	AA (Eastern)	AB (Eastern)	AE (Eastern)	AI (Eastern)	AJ (Eastern)	AN (Eastern)	AO (Eastern)
<b><i>Environmental Checklist</i></b>																
Human Beings	Red	Green	Yellow	Yellow	Red	Yellow	Yellow	Red	Red	Yellow	Yellow	Yellow	Green	Yellow	Yellow	Yellow
Ecology	Yellow	Red	Red	Yellow	Red	Yellow	Red	Red	Red	Red	Red	Yellow	Red	Red	Green	Yellow
Water Quality	Yellow	Yellow	Red	Yellow	Red	Yellow	Yellow	Red	Yellow	Green						
Geology / Hydrogeology	Yellow	Red	Red	Yellow	Red	Red	Red	Red	Red	Yellow						
Air Quality	Red	Green	Yellow	Green	Yellow	Yellow	Yellow									
Noise and Vibration	Red	Yellow	Yellow	Yellow	Red	Yellow	Yellow	Red	Red	Yellow	Yellow	Yellow	Green	Yellow	Yellow	Green
Landscape and Visual	Yellow	Yellow	Yellow	Red	Yellow	Yellow	Yellow	Red	Yellow	Yellow						
Cultural Heritage / Archaeology / Architecture	Red	Green	Yellow	Red	Yellow	Yellow										
<b><i>Overall Environmental Preference Score</i></b>	Low	Moderate	Low	Moderate	Low	Moderate	Moderate	Low	High	High						

Stage 1 Cost Matrix

Preliminary Route Options	Do Minimum	AC (Western)	AD (Western)	AF (Western)	AG (Western)	AH (Western)	AK (Western)	AL (Western)	AM (Western)	AA (Eastern)	AB (Eastern)	AE (Eastern)	AI (Eastern)	AJ (Eastern)	AN (Eastern)	AO (Eastern)
Length of Route (km)	6.80	7.58	7.27	8.20	5.78	7.52	6.79	6.00	4.95	5.82	5.35	5.04	4.12	6.45	6.36	3.71
Cost Estimate (€m)	N/A	43.5	43.8	44.2	48.7	42.4	53.8	44.7	38.6	41.7	34.6	33.4	28.9	41.7	42.5	28.1
<b><i>Overall Economy Preference Score</i></b>	High	Moderate	Moderate	Moderate	Low	Moderate	Low	Moderate	Moderate	Moderate	High	High	High	Moderate	Moderate	High