Appendix E. Implementability Scoring Criteria

Topography and Alignment Considerations

Rating	Description
Green	Topography in route corridor is expected to allow route options to be developed that comply with desirable minimum design standards, or be close to desirable minimum standards over the majority of the route.
Amber	Topography in route corridor is challenging in parts; expected to allow route options to be developed that comply with desirable minimum design standards or be close to desirable minimum standards over large parts of the route; potential for departures from standard in localised areas; in general, departures unlikely to be significantly substandard.
Red	Topography in route corridor is challenging; expected to affect route option development with alignments below desirable minimum design standards over large parts of the route; potential for localised areas with significantly substandard alignment; potential for extensive lengths of route options with departures from standard.

Geology/Geomorphology Considerations

Rating	Description
Green	Route corridor passing through terrain with no known history of landslide events or evidence of only rare or minor events remote from potential routes. No clear evidence of ongoing instability and/or of the presence of other significant geotechnical hazards.
Amber	Route corridor with sections passing through terrain where localised landslide events are known to have occurred. Considered to be susceptible to instability and/or other significant geotechnical hazards may be present.
Red	Route corridor with sections passing through terrain where widespread and/or frequent landslide events are known to have occurred. Evidence of continuing instability and/or of the presence of other significant geotechnical hazards.

Structures Considerations

Rating	Description
Green	Minor design and construction requirements; the structures are non-complex of simply supported, continuous beam or integral type. Substructures are simple reinforced concrete on spread footings and comparatively shallow piles in friction or end bearing.
Amber	Moderately complex design. Includes multi-span bridges or moderate long span (<200m), cable supported, post-tensioned, segmental or highly skewed construction. Moderate torsion spans and decks with significant substructure loading by wind and temperature range. Bridges are expected to require MEWP or gantry inspection. Will require special measures for marine navigation (height), de-icing and traffic control.
Red	Complex cable supported (cable stayed, suspension) form with spans exceeding 200m and tunnels. For bridge structures, aerodynamic and/or temperature effects are principal design actions. High tower/pylon construction (>50m) with measures for ship collision resistance. Tower height has significance for aircraft/airports (consultation). Includes bored, drill and blast and immersed tunnel types.

Constructability Considerations

Rating	Description
Green	Minor construction issues and constraints considered standard for a roads project. Moderate or minor impacts to road users with limited traffic management required. Minor or moderate level of technical complexity that can be delivered using industry standard methods. Minor or moderate construction

Rating	Description
	management requirements for work extents and complexity in high risk areas such as flood plains. No significant safety issues.
Amber	Notable construction issues and constraints that could impact project delivery. Notable impacts to road users with moderate traffic management required. Notable level of technical complexity that can be delivered using industry standard methods supplemented with some specialist solutions, including complex staged construction and launch techniques. Notable construction management requirements for work extents and complexity in high risk areas such as flood plains. Notable safety measures required and increased risk with required construction.
Red	Major construction issues and constraints that could severely impact project delivery. Potential for high level of disruption and impacts to road users with extensive traffic management required. High level of technical complexity requiring specialist bespoke solutions alongside industry standard methods, including segmental construction by cable lifting requiring complex temporary works and work in marine environments with deep water. Major construction management requirements for work extents and complexity in high risk areas such as flood plains. Major safety measures required and increased risk with required construction.

Environmental Considerations (all)

Rating	Description
Green	The route corridor has potential for positive environmental effects, for example by providing opportunities for enhancement.
Amber	The route corridor has potential for a minor negative or uncertain environmental effect.
Red	The route corridor has potential for significant negative environmental effects.

Traffic Flows

Rating	Description
Green	A large reduction of traffic flows on the existing A83, at the Rest and Be Thankful, is expected.
Amber	A moderate reduction of traffic flows on the existing A83, at the Rest and Be Thankful, is expected.
Red	A minor reduction of traffic flows on the existing A83, at the Rest and Be Thankful, is expected.

Accidents

Rating	Description
Green	Minor or moderate positive
Amber	Neutral
Red	Minor or moderate negative

Operational Considerations

Rating	Description
Green	Minor operation and maintenance requirements; route corridor is anticipated to allow the operating company to generally follow standard cyclic inspection and maintenance requirements, and have minimal impact on operations. No significant maintenance challenges, safety issues or weather closures are expected.
Amber	Moderate operation and maintenance requirements. Sections of/assets on the route corridor are expected to create additional/challenging/costly maintenance input such as MEWP or gantry inspection access and, or safety issues over and above standard requirements leading to a moderate impact on operations. Moderate likelihood for weather to impact on the operation of route.

Rating	Description
Red	Major operation and maintenance requirements. Sections of/assets on the route corridor are expected to create extensive additional/complex/costly maintenance input such as permanent on-site control facilities including traffic control and, or safety issues putting considerable burden on the operating company and operations. High likelihood for weather to impact on the operation of the route.

Financial Considerations

Rating	Description
Green	Estimated route corridor cost less than £500m
Amber	Estimated route corridor cost between £500m and £1Bn
Red	Estimated route corridor cost greater than £1Bn