

A83 Medium Term Strategy
Options Assessment
Option Fact Sheet

Option Name	Long Term Scheme (LTS) – Long Viaduct
Brief Description	<p>This option connects to the existing A83 Trunk Road at the eastern end of Glen Croe approximately 550m south-east of the Old Military Road (OMR) / lower forestry access track junction.</p> <p>Traveling north-east for approximately 360m on embankment, the route transitions to a viaduct for approximately 3,240m. The viaduct crosses the existing A83 Trunk Road, OMR and Croe Water as it approaches the western slopes of the glen. It then turns and generally follows the slope profile, maintaining a clearance height of approximately 10m between bottom of the structure deck and ground levels. This clearance is to allow the passage of geohazard materials beneath the structure. At each pier, it has been assumed that a deflector structure would be provided in order to divert landslide and/or debris flow material away from the piers.</p> <p>At the western end, the viaduct lands adjacent to the Rest and be Thankful car park. From this point, the alignment continues north, parallel with the top end of the OMR and through the junction with B828 Glen Mhor, local road to tie back into the existing A83 Trunk Road alignment east of Loch Restil.</p> <p>The maximum gradient of this option is approximately 5% as it passes along the western slopes of the glen.</p> <p>Overall, this option is approximately 4.3 km long, measured between the two points at which it ties into the A83 Trunk Road.</p>
Option Pros	<p>The key positive elements of this option are listed below:</p> <ul style="list-style-type: none"> • This option effectively bypasses the main landslide/debris flow hazard area on the eastern side of the Glen and is operationally comparable to the A83 Trunk Road with two-way traffic over its entire length. • This option provides protection from geohazards in the form of a viaduct which may not require cutting into the hillside. • Option effectively bridges the many watercourses that are located on western slopes of the glen, thereby reducing the need for their management. • A significant length of this option lies within Scottish Ministers land.
Option Cons	<p>The key negative elements of this option are listed below:</p> <ul style="list-style-type: none"> • This option would not be efficiently implementable as a phased approach with a medium term solution. • Significant maintenance programme for upkeep of viaduct is anticipated. • Pier deflectors/protection would be required which may need to be replaced/repared in future, depending on geohazard impact, increasing future maintenance burden.

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	<ul style="list-style-type: none"> • The need for third party land cannot be ruled out, such as at the connections to the A83 Trunk Road at the east end and B828 Glen Mhor local road at the west end. • Longest estimated construction duration of the three LTS Green Option variants.
Time to Implementation	An outline programme should be developed as part of DMRB Stage 2, should the Green Option be selected as the preferred route.
Outline Construction Programme	It is estimated that the construction of this option would extend over a period of 54 months to 60 months.
Scheme Costs	Costs for the LTS Green option will be prepared as part of the DMRB Stage 2 report.
Caveats Identified	<p>The caveats associated with the above data at this stage are identified as following:</p> <ul style="list-style-type: none"> • Deflector structures are assumed to be required over the majority of the length, but not at the northern and southern tie in points. • There is limited available information on the underlying ground conditions and the general slope conditions along the western side of Glen Croe. Accordingly, the geotechnical solutions and geohazard mitigation proposed have been based on various assumptions and is subject to change pending further data collection, assessment and design development. This may have significant bearing on the estimated cost generated.