Scheme	Alternatives considered
Temple Sowerby to Appleby	A number of alternative routes have been considered to reduce the impact on Trout Beck watercourse. Fifteen options were developed and shortlisted taking into account potential environmental impacts, project design principles, impacts on landowners, and design safety. Eleven options were subsequently discounted, with three alternative route alignments falling to be assessed in the PEI Report: • Blue Route (Evolved version of the Preferred Route announced in Spring 2020) • Orange (Online Alternative) • Red (Offline Alternative) As set out in the Route Development Report, Highways England's preferred alignment for this scheme is the Blue Route.
Appleby to Brough	A number of alternative routes have been considered in relation to the required land take within the North Pennines AONB designated area. The route was divided into three sections (western, central and eastern) and alternatives developed for each: three alternatives for the central section, and two for the eastern section. Two potential options in the central section (Black and Blue), and two potential options in the eastern section (Black and Orange) have been assessed in the PEI Report: Black (Evolved version of the Preferred Route announced in Spring 2020) Blue Alternative Central Section Orange Alternative Eastern Section Where relevant these alternatives have been considered in the following combinations, reflecting that the second colour listed in each case refers to the alignment for the central section (blue or black), and the third colour listed is the eastern section (orange or black): Black-Black-Black Black-Black-Black Black-Black-Orange Black-Blue-Orange As set out in the Route Development Report, Highways England's preferred alignment for this scheme is the Black-Blue-Black Route.
Cross Lanes to Rokeby	A number of alternative routes have been considered following consultation with statutory bodies and local groups regarding potential impacts upon traffic flows, safety and heritage assets. Alternatives were developed for two sections of this scheme: Cross Lanes and Rokeby. For Rokeby two of the options considered moved the mainline closer to the existing A66. Both would require the demolition of The Old Rectory, a heritage asset connected with the setting of the Registered Park and Gardens and these two options were therefore discounted. One alternative option (Red) to the preferred route at Rokeby, and one alternative option to the preferred route at Cross Lanes (Blue) have been assessed in the PEI Report: Black (Evolved version of the Preferred Route announced in Spring 2020) Cross Lanes – Blue Alternative junction Rokeby – Red Alternative junction

Where relevant these alternatives have been considered in the following combinations (the first colour referring to the Cross Lanes junction and the second referring to the Rokeby junction):

- Black-Black (evolved Preferred Route)
- Blue-Black (Cross Lanes alternative junction and Black evolved Preferred Route)
- Black-Red (Black evolved Preferred Route and Rokeby alternative junction)
- Blue-Red (Cross Lanes alternative junction and Rokeby alternative junction)

As set out in the Route Development Report, Highways England's preferred alignment for this scheme is the Blue Alternative junction at Cross Lanes and the Black evolved Preferred Route junction at Rokeby (Blue-Black).