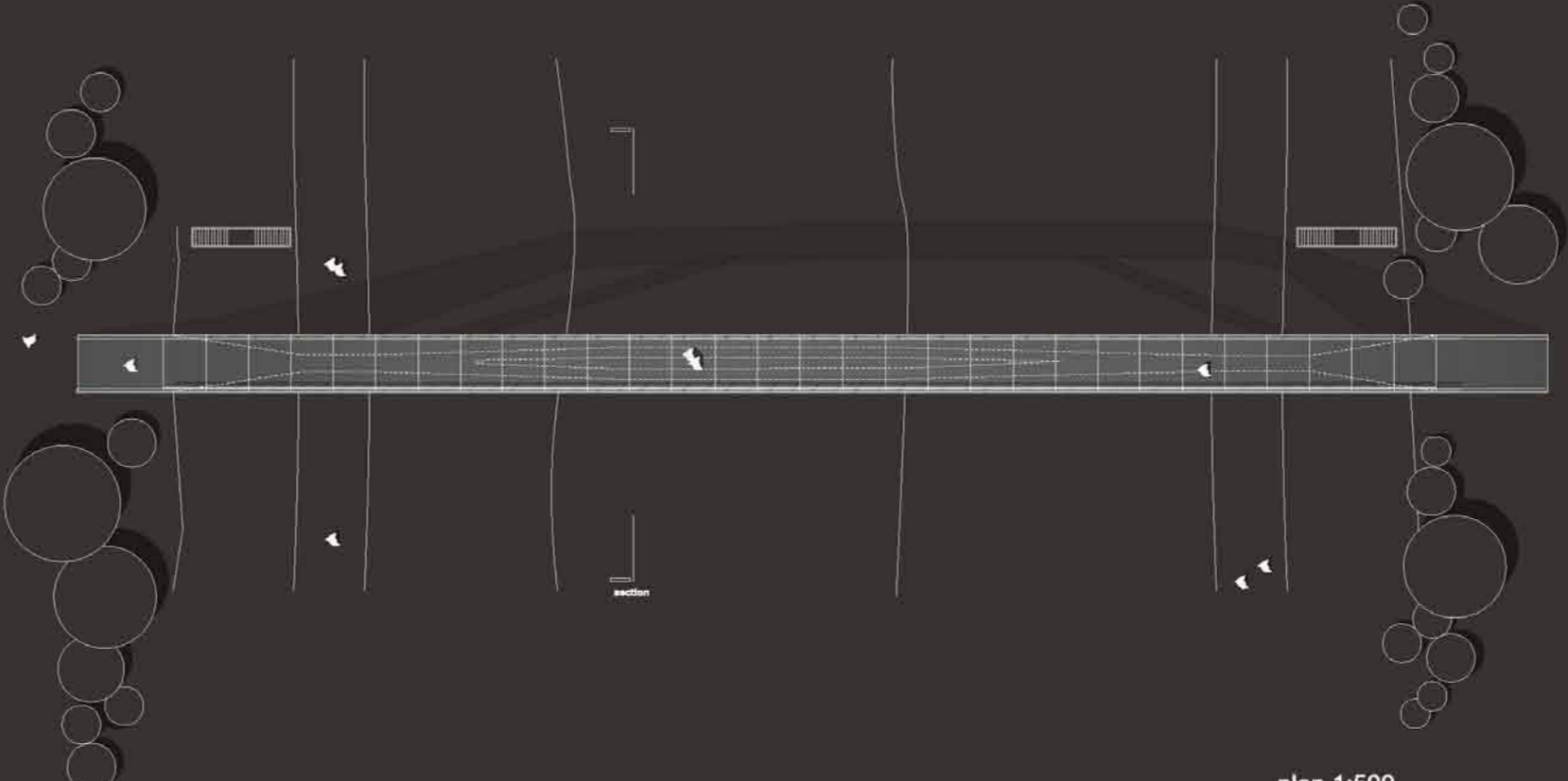
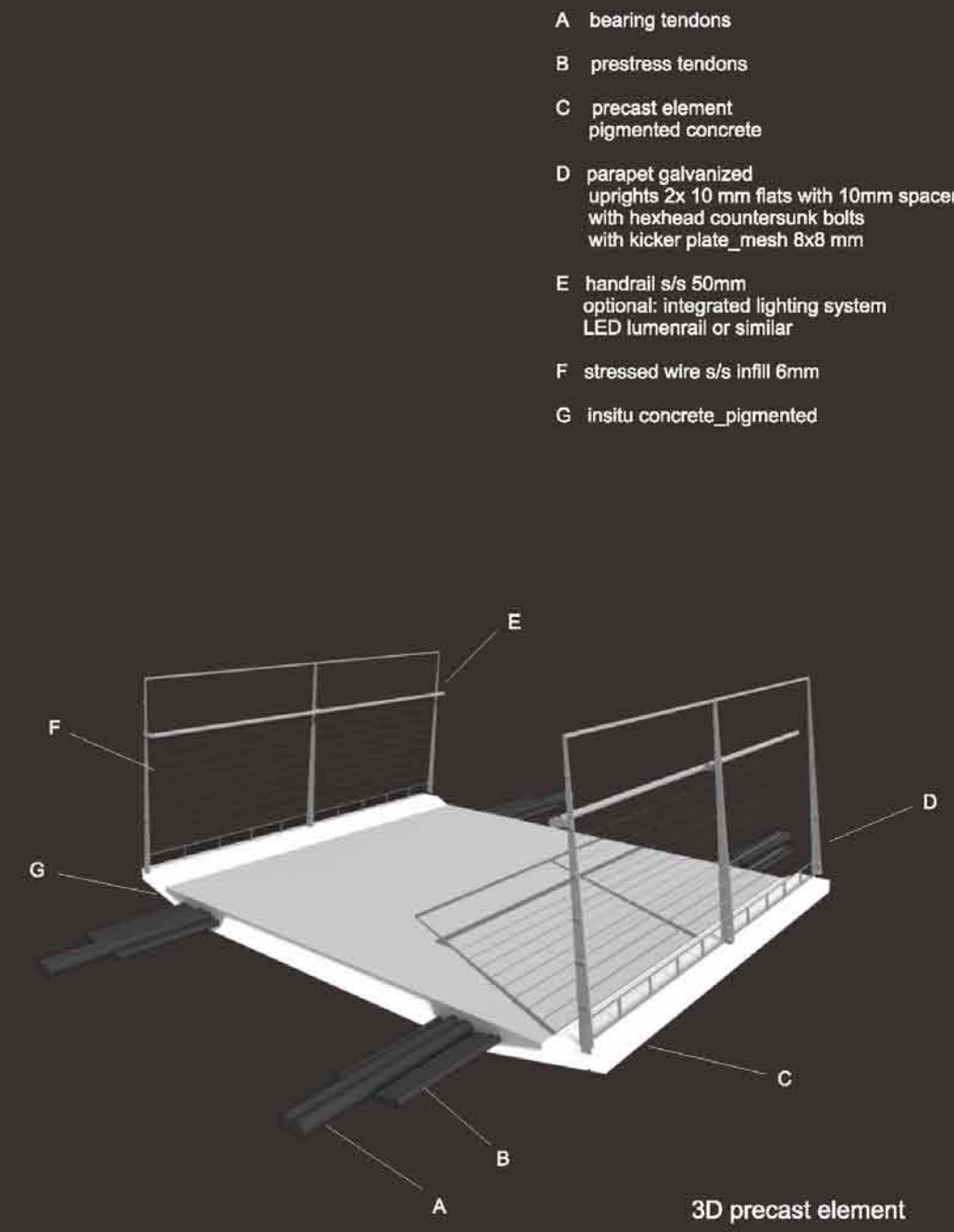
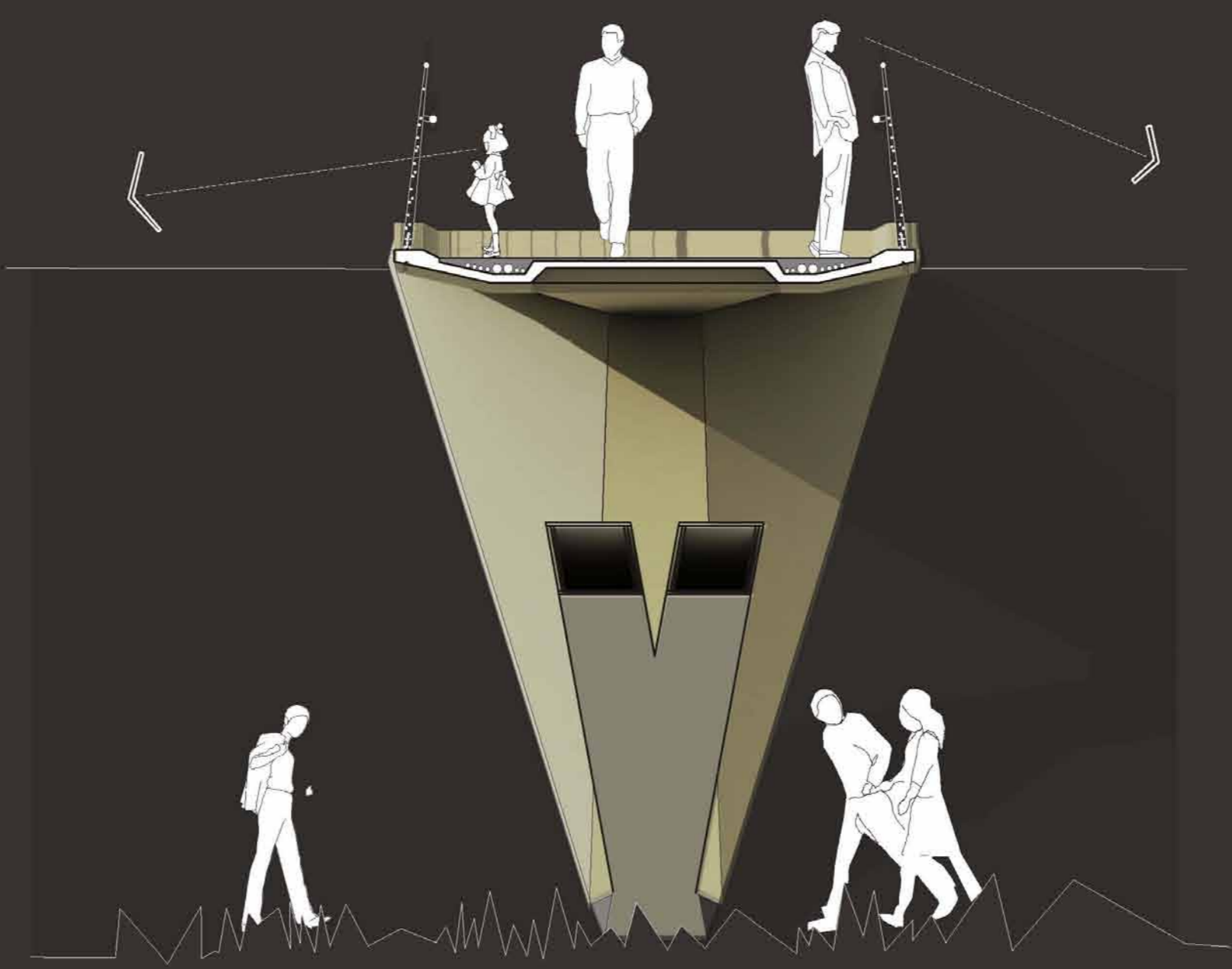
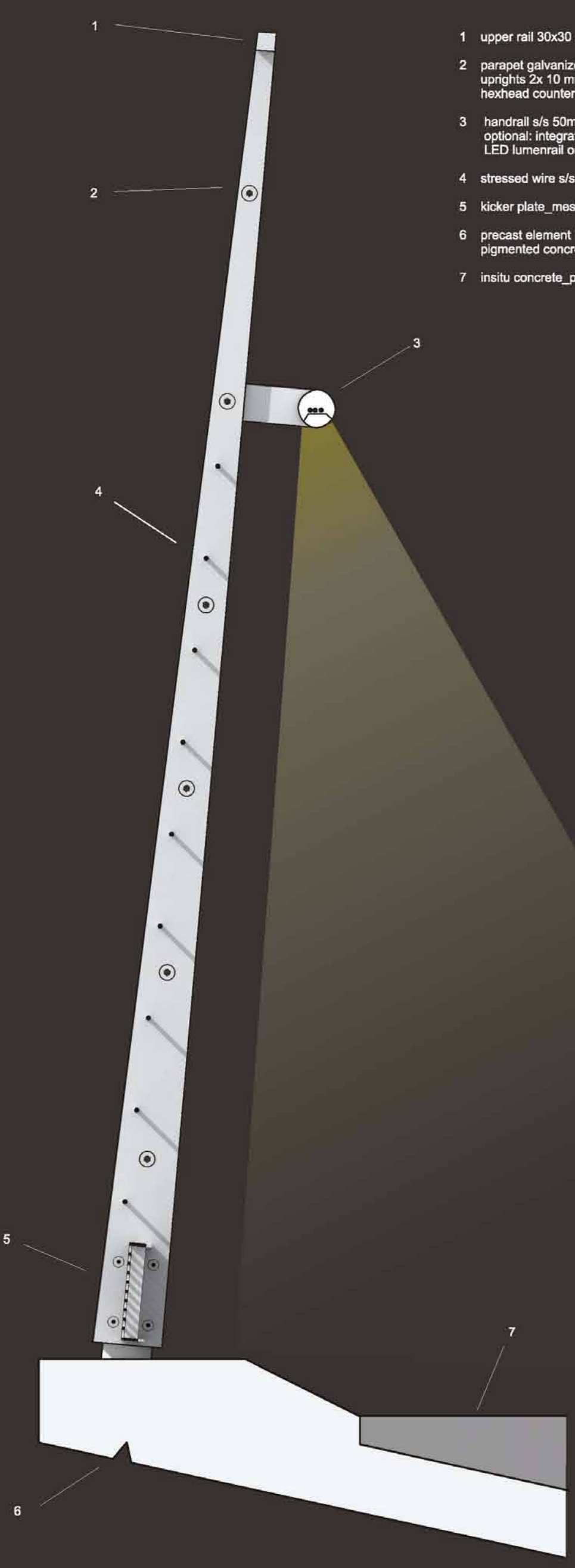
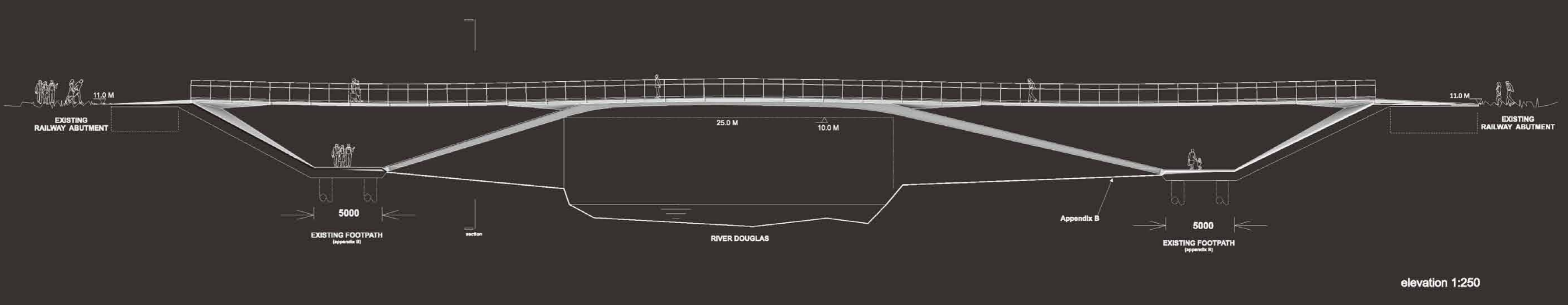




perspective 1



perspective abutment  
walking through the structure



The proposed new crossing of the River Douglas at Hesketh Bank-with-Beeconsall is a stress ribbon bridge, which incorporates a supporting steel arch to reduce the effective span.

The resulting elegant and slender structure hangs via its deck suspended cable-like from the existing railway bridge embankments replacing an 85m long structure demolished in the 1960's. Since the introduction of this rather new structural type (stress-ribbon bridge), a considerable number of stress ribbon bridges have been built and tested successfully.

The parapet consists of steel frames with a stressed wire infill which helps to decrease the visual height of the bridge, keeping it slender in elevation and reducing wind loads.

Being a controlled intervention into the existing landscape the proposal is in harmony with the surrounding landscape and legibly marks the crossing point.

The foundation will make use of the existing abutments as far as possible to distribute loads generated by the superstructure. A self-anchored system is sought after. By the help of the arch and the compression link, the anchoring requirements at the abutments will be reduced to a minimum. The load of the steel arch will be locally distributed by cast-in, fabricated, stiffened steel assemblies.

Minimal maintenance due to non existing bearings or expansion joints reduces the carbon footprint of the as does the minimal use of material for this structure.

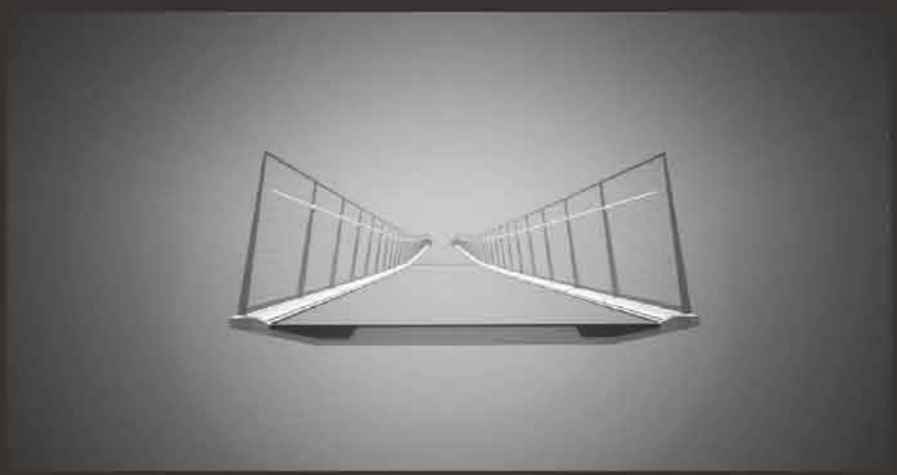
The objective for the proposal is to become an asset to the new greenway, between Southport and Preston and take to part in promoting the Ribble Coast and Wetlands as an internationally recognised destination, based on its environmental assets.



perspective 2



areal view



'topography' of bridge