



(Left) Highway construction completed in 2021 (Right) Damaged old pavement structure before reconstruction.



Roads, Pavement
& Trafficked Areas
Nº 489

Doan Lap - Han Bridge National Highway

📍 Tien Lang, Hai Phong, Vietnam

CONSTRUCTED IN 2021

Benefits

Proven savings

with a 8% reduction in construction time compared to conventional solutions

Reduction of granular materials

by 25% in pavement construction

Ease of installation

with Tensor geogrid

Rapid construction, lasting impact solution

The connection route, a major road from Hai Phong city to Thai Binh province, has sustained damage over time, and requires renovation to accommodate increasing traffic demand and heavy trucks.

CLIENT'S CHALLENGE

The impact of vehicle and construction machinery loads caused the designed pavement life to be reduced greatly. This led to a badly damaged road which required immediate rehabilitation. The investor wanted a rapid solution to replace the original design because this route forms the arterial road with busy traffic. Due to the impact of vehicle and construction machinery loads, the road performance is not guaranteed with the original calculation.

TENSAR SOLUTION

Design consultant had selected Tensor mechanically stabilised layer (MSLs) using stabilisation geogrid to replace the traditional method of excavating the old pavement and backfill with 30cm Type II aggregate base stone. The proposed solution significantly reduced both construction time by 8% and base/subbase materials by 25%, while also extending the pavement's lifespan.