



## Harrogate Road/New Line Junction Improvements Scheme Bradford - £3.1M.



### Material Specification

8,000 tonnes SHW Clause 803 Type 1 Subbase.

### Overview

Congestion reduction scheme on a busy intersection. Major improvements to the existing junction including widening the existing highway on all four approaches to the junction, signal upgrades and a P-loop. Cyclists and pedestrians will also benefit from the scheme with the addition of new cycle lanes, pedestrian islands, and more controlled crossings.

### Client

Bradford Metropolitan District Council.

### Delivery Partner

Howard Civil Engineering LTD.



## Construction

68 Week project completed in Autumn 2021. Widening all four approaches to Greengates Junction totaling 580m of existing carriageway, 70m of new carriageway. The Incinerator Bottom Ash Aggregate (IBAA) Type 1 subbase is being laid at varying depths; Road carriageway 370mm, Footpaths 100mm, Car Parking Bays 150mm. The subbase is being placed directly onto the subgrade.

## Benefit

IBAA is an extremely cost-effective material when compared to Primary Aggregates and BP UK is working towards a verified Carbon Footprint. There are also advantages logistically when using IBAA due to the low density of the material allowing for fewer vehicle movements as this gives volumetric advantages over primary materials.

