

Welded Wire Mesh-Faced Grade Separation Structures

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Welded Wire Mesh (WWM) forms are becoming increasingly popular in the construction of Mechanically Stabilized Earth (MSE) structures. In use as both temporary and permanent structures, WWM-faced structures have proven to be an economical alternative to more hard-faced facings such as concrete modular blocks and precast panels.

This presentation will cover several projects where steep, near vertical, and vertical WWM-faced have been installed in both temporary and permanent applications. The following design considerations and construction procedures will be addressed:

- Design Methodology
- Design Parameters (ie, backfill specifications, etc...)
- Top-of-Structure loading conditions, and
- Construction Procedures.



Figure 1. WWM MSE wall in a railway application

In addition to a brief account of the projects, a description of the challenges each project presented is offered. The proposed solution and resulting outcome are then presented.

The goal of the presentation is to demonstrate that WWM structures, as with all MSE structures, require special attention to design considerations, proper materials specifications, and construction procedures. Failure to do so may result in poor performance of the structures.