

REF-A08

STEEL BASEPLATE CONNECTION TO CONCRETE FOR TEMPORARY FASTENING
PROJECT

Mumbai Ahmedabad
High speed Rail
(MAHSR)
Track works package

LOCATION

Gujarat, India

CLIENT

National High Speed Rail
Corporation Limited

DESIGNER

L&T, EDRC

INSTALLATION

2023


Application

RC Track bed shuttering works

Design std.

EN 1992-4 (post-installed anchors)

Hardware

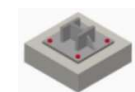
Hilti HUS4-H, TE-30 + TE CX M8

Software

PROFIS Engineering (anchor to concrete)

Services

On-site testing, training at jobsite



LOAD/ CONDITIONS

Static,
Seismic/reusability

CHALLENGES

- Reusability of anchors
- Greenfield project
- Limitation in embedment depth
- Cost Control
- Internationally reputed and certified supplier

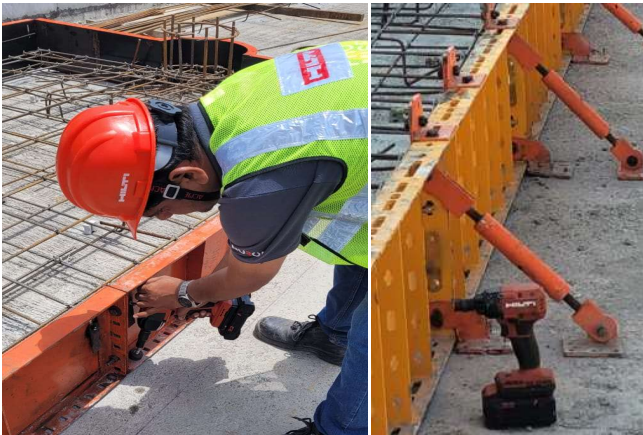
HILTI TOTAL SOLUTION

- ✓ Most optimized solution
- ✓ Post-installed concrete screw anchors
- ✓ Power tools with NURON platform
- ✓ Designed and approved product

PROJECT HIGHLIGHT


Design optimisation and Strong collaboration with entire project team

APPLICATION AND REQUIREMENT



Application Details: RC track bed shuttering work

For the longest span in this greenfield project, customer wanted to ensure that minimum cost is occurred in maximum execution of RC track bed shuttering works in the span of 150 km. The requirement was for speedy installation of shutter moulds (23000 nos) worked as foundation of main track of high-speed bullet trainline.

Greenfield project

There was **constraint in power supply** with limited resources. The requirement was given for use of tools which require less power supply with power backup system for long duration. **SIW 4 Nuron tool** was proposed for tightening of the anchors. Drilling was done with **TE 30 + TE CX 8 Nuron tool**.

APPROACH TOWARDS SOLUTION



Hilti anchor with reusable gauge

The reusability requirement was one of the primary criteria for post-installed anchor selection. Hilti proposed reusable post-installed concrete screw anchor with the reusability property up to 50 times. Special reusable gauge was also used for reusing the anchors. Hilti supported from the initial phases and training was conducted to the client team along with a series of demonstration at the jobsite.

Post-installed anchors and other tools

- Post-installed mechanical anchors- **Hilti HUS4-H M8 X 65** were used.
- Finishing of concrete was done by using **light duty Hilti TE 500X** accessories and inserts.

THE FINAL OUTCOME



Concrete bed (final and execution)

