



GIS Empowered Feasibility Study for High Speed Rail Corridor

With an objective to assess the requirement of an upgrade for an existing railway corridor to high-speed railroad, a leading engineering consulting firm had undertaken a feasibility study. A corridor stretch of 366 Km X 100 m was defined as the scope of this study. The requirement encompassed detailed ground data along with an enriched topographic map with high positional accuracy and longitudinal profile within a short time. Genesys, with its in-depth technological prowess and experience in enterprise GIS, offered a custom combination of conventional and LiDAR services.

The customized model solution was used to conduct detailed topographical survey, mapping and creation of L-section of existing track added with information on all natural and man-made features. Key site details, HFL, DL, FSL, soffit, levels and bed levels were collected through physical survey. Rest all information was digitally measured using LiDAR Point Cloud data. Augmented with 360-degree Panoramic Imagery, this data enabled visual presentation of ground assets 'as-is'.

Key benefits:

- Least human dependence for data acquisition
- Improved project strategies basis infringement analysis
- Comprehensive and cost effective transportation & asset planning
- Evidential proof for maintenance & construction services in form of visual analysis of corridor assets 'as-is'