



Total Environment Modelling

Verdaus combine three dimensional data from digital elevational data, topographical surveys, engineering design levels, and architectural digital models. The result is a coordinated model of the total environment. We share this information with the project team early in the design cycle.

We then create topographically accurate 3D digital models of the proposed landscape design based on total environment model. This gives the client, project team, and other stakeholders a clear representation of the proposed landscape design and the ability to make changes interactively during concept presentations. Clients have expressed a strong interest and preference for viewing the interactive 3D models rather than the traditional plans and sections. By providing the client with a presentation format that is easy to understand, required changes are identified early in the design process rather than on site, when modifications would be costly and could cause project delays.

CASE STUDY 1: CHALLENGING LEVEL DIFFERENCES

The project was a parliamentary campus with large levels differences across the site. The footprint for the houses of parliament spanned over 400m in one direction. This created difficulty in providing vehicle access at the required grades. A major road bordered the site on three sides constraining possibilities to change levels along the property boundary. Verdaus assembled a digital model of the total environment by combining the digital elevational data from Google Earth, topographical survey, contractor's as-built surveys (the main contract was in progress), engineers

design levels and the architectural digital model. For the first time in the design cycle the challenges created by the changes in level were clearly visible to the whole design team. This enabled the team to work together and quickly deliver an integrated and elegant solution. All vehicle access roads were designed to satisfy both engineering requirements and the aesthetic proportions which were vitally important for a project of this profile.

CASE STUDY 2: PRECISION DESIGN

The project was the opera house situated in the nation's capital city. The building was located close to a major expressway. A major terrace faced the expressway. The client was seeking a solution to provide a buffer between the terrace and the adjacent expressway. However it was also important to retain views to the main building. Views from the building needed to be screened at the lower level to conceal views of the expressway. Verdaus assembled an integrated digital model using as-built surveys, road design levels and the architectural model. We then designed the landscape in three dimensions to ensure ground levels provide the exact visual screening that was required. This was demonstrated to the client's satisfaction with an interactive presentation of the digital model.