

## Field Behavior of a High Anchored Reinforced Earth Wall

### ABSTRACT

Since the invention of Reinforced Earth by the French architect Hendri Vidal in 1966, numerous reinforced soil walls have been designed and constructed all over the world. In this study the focus was on a particular type of reinforced wall called Nehemiah wall which differed from the Vidal type in the sense that instead of steel strips, the reinforcing elements consisted of steel bars with anchor blocks attached at the free ends. A full scale high anchored reinforced earth wall was constructed and instrumented to capture the essential behavior of the wall. Two sections of the wall were monitored where at one of the sections polystyrene foam was inserted at the back face of the wall panel to allow for lateral deformation to take place which means that the facing was less flexible in the transverse direction. The lateral deformation, axial forces along the reinforcing bars and settlement were monitored and measured for both cases and the results were compared and discussed.

**Keyword:** Anchor blocks, instrumentation, lateral movement, reinforced earth, settlement