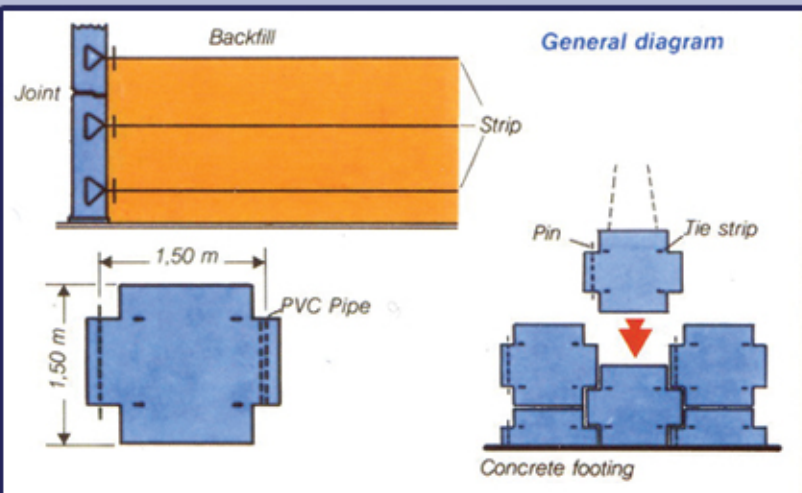


## REINFORCED EARTH ®SYSTEM

Reinforced Earth ® is a composite material formed by the association of a frictional soil and reinforcing strips. Stresses produced within the soil mass are resisted by the strips. The stresses are transferred to the strips by friction. In concept, it is like concrete: that is an economical means of improving the mechanical properties of a basis material, earth, by reinforcing that material with another, steel. Precast concrete facing panels are used at the face of the reinforced volume to prevent erosion of the backfill and to provide an attractive finished appearance.

Reinforced Earth ® structures are built by using the following main elements: leveling pad, precast concrete panels, special galvanized steel strips, granular backfill and some other inserts such as galvanized tie strip, galvanized bolts & nuts, EPDM pads and joint foam.



## APPLICATION AREAS

- Railways
- Retaining Walls
- Bridge
- Industrial Applications
- Hydraulic Applications

## CONSTRUCTION PHASES

- *Pre-casting in special moulds and piling of panels in accordance with the project requirements*
- *The leveling pad is formed at the level as required in project drawings*
- *Granular backfill is placed and compacted in 37,5 cm thick layers*
- *Erection of first row of panels, then steel strips are placed and connected to the panels by bolts & nuts*
- *The above phases are repeated in the next backfill process*





## ADVANTAGES OF THE SYSTEM

### Flexibility and Earthquake Resistance

Reinforced Earth® structures, due to their flexible nature, are able to allow for horizontal and vertical movements. This ability gives an earthquake resistance structure.

### Speed of Construction

A significantly higher rate of construction compared to conventional systems, such as reinforced concrete walls.

### Quality Control

Easy to control the quality of the production of panels

### Environmental Benefits

Due to rapid construction rates disruption to the local community and local environment is likewise reduced and minimized and therefore.

### Aesthetics

Reinforced Earth® structures look more natural and acceptable than reinforced concrete walls; panel surface can be textured or formed with a private logo.

### Soil Base Pressure

With a Reinforced Earth® walls, soil base pressure under the whole width of the structure is reduced and therefore the structure may be placed on relatively weak soil layers.

### Working in Limited Space

Reinforced Earth® construction can realize in limited spaces, particularly in the cities where expropriation problems are faced.





# HEROES SQUARE PROJECT

(TBILISI, GEORGIA)

Circus Area Ramp



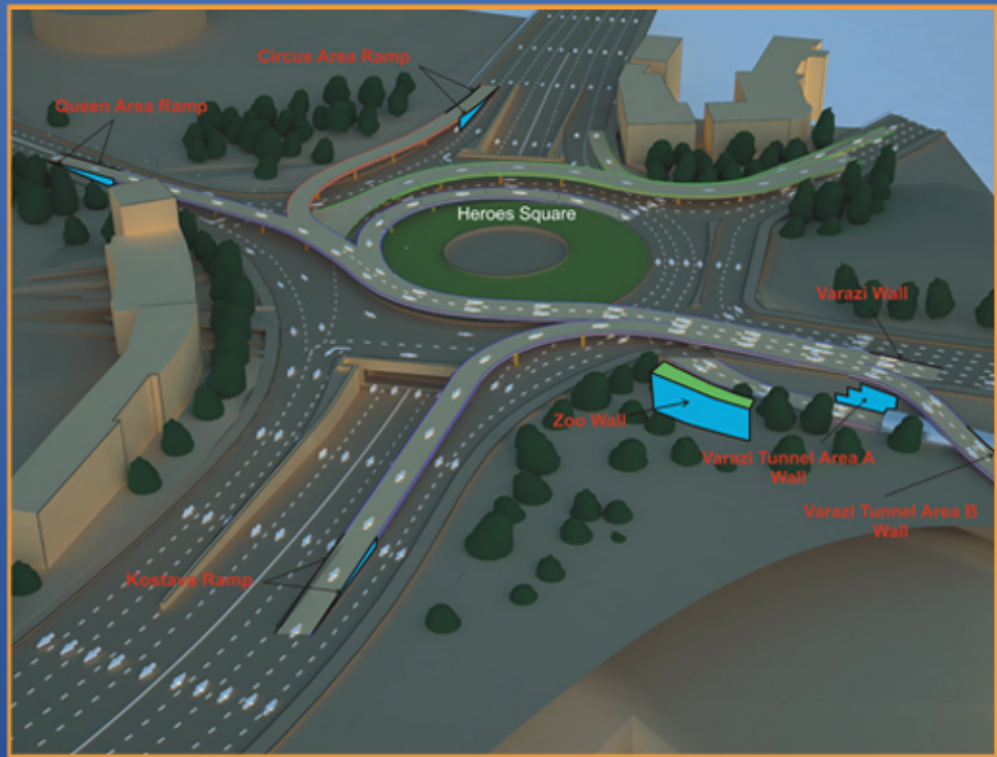
Zoo Wall



Varazi Tunnel Area B Wall



Varazi Tunnel Area A Wall





## RAILWAYS APPLICATIONS

