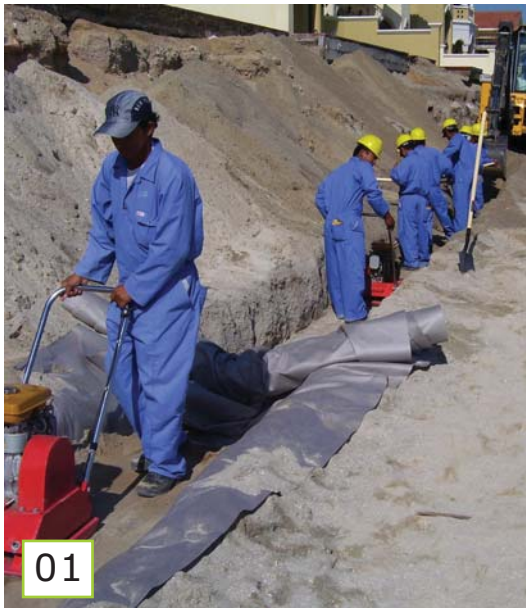

Installation Instructions – 4x4 stairs and low retaining wall

Image 01: Well draining sand slopes to be retained with three terrace walls. Excavate foundation, compact trench, place geofabric wrap around, fill and compact sand foundation.

Image 02: Foundation of sand wrapped in geofabric, compacted and then closed with fold-over fabric

Image 03: Packing with line and level. No gaps are allowed between blocks. Depending on the climate and soil conditions it will be necessary to install a drainage layer and sub soil drain pipe behind the blocks.

Image 04: Terrace wall under construction while backfill is brought in for compaction. Compact to specification in layers not exceeding block height and hand compact inside blocks.

Image 05: Placing of pre-cast concrete foundation for the stairways, alternatively insitu foundations can be used where so specified.

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Image 06: First stair blocks are placed perfectly level on the foundation. Carefully check levels and dimensions to enusure that the top row of the steps ends at the desired point. Consider geofabric or cement stabilised backfill behind blocks where fine, soft sand is used.

Image 07: First row of double wing-wall blocks placed on geofabric and sand foundation.

Image 08: Professional supervision and training on site. Quality checks and supervision as always have to be rigorously enforced during the entire period of installation.

Image 09: Keying in of double wing-walls with terrace walls. This is not possible without maintaining a firm grip on levels.

Image 10: In detail prior to filling and compacting behind and inside the blocks. Compact inside with small hand compactors and allow no gaps between blocks.

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Image 11: Terrace walls complete in the background and stairs almost at final level.

Image 12: Nearing completion of the staircase, keyed into terrace walls.

Image 13: Adding the final touches. Top blocks of double wing-walls to be filled with concrete in matching colour and brushed for a rough finish.

Image 14: A thousand and one stairways to be completed as shown in this picture.

Be alert: No or negligible design input -- lack of drainage above or behind the wall -- lack of supervision on site -- substandard backfill material or inadequate compaction -- excavation close to wall foundation -- loading not accounted for in design -- poor or saturated founding conditions -- and finally culprit #1, cost cutting aspirations by various parties, will result in disappointment.

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