

The ferro-cement septic tank

In four slums, Shelter Associates opted to construct a ferro-cement septic tank. Ferro-cement, more straightforward than masonry, has often been used in the past for septic tanks and is accepted by engineers as an appropriate material. These were the main stages of building the tank at Bharat Nagar:

1.

Reinforcement for the septic tank comprises chicken wire and torsteel bars which are welded together to form a large cage for the concrete to be slapped on. Even the baffle walls are reinforced like this.



2.

The cage is put in place on a PCC base. The PCC base has the slope required for the septic tank to function efficiently.

3.

The rich concrete mix is manually slapped on from inside and outside the tank. This has to be completed in one go to form a large, strong monolithic structure. The curvature on the top of the tank gives it added stability.



Every day the tank is filled with 6" of water to cure it from inside and to uncover any leaks in the tank walls.



4. The outside of the tank is cured by placing wet gunny sacks over it. Here the women are lending a hand in filling the area around the tank.



5.

The finished tank before the top was paved, complete with manholes for access, and ready to be filled with water.

