

CONSTRUCTION OF RAINWATER HARVESTING STRUCTURES IN BHEL TOWNSHIP, NOIDA

DESIGN SPECIFICATIONS

For the subject Work, a total of 10 recharge structures are proposed. This includes 8 Nos. Recharge Wells with Desiltation Chambers along the storm water drain network and 2 Nos. Recharge Trenches at gate A and B of the township. (Please refer to **Annexure – A**: Layout Plan of Township depicting Positions of recharge structures)

The proposed recharge wells will consist of a Desilting Chamber and Recharge Well.

A. DESILTING CHAMBER (08 Nos.)

There will be a Desilting chamber connected to each recharge well. The dimensions of the Desilting chamber will be 1 m long, 2 m wide and 1.5 m deep. It is divided into two halves by constructing a baffle wall in the middle across the length. There will be three layers of filtration materials – sand, pebble and gravel, each layer measuring 25 cm. The top layer of sand will be covered with a thin layer (5 cm) of pebble to prevent scouring of sand. The filtered water will be taken into recharge well.

(Please refer to **Annexure – B**: Cross-section of a typical Desilting chamber.)

B. RECHARGE WELL (08 Nos.)

The size of each recharge well will be 2.5 m x 2 m x 2 m. The well should be constructed with brick work and has a recharge bore of 150 mm (6 inches) in diameter and a depth of maximum 16 m. One-third of the recharge well should be filled with filter material (sand at the top followed by gravel and pebble). The thickness of each layer should be 20 cm.

(Please refer to **Annexure – C**: Cross-section of a typical Recharge Well)

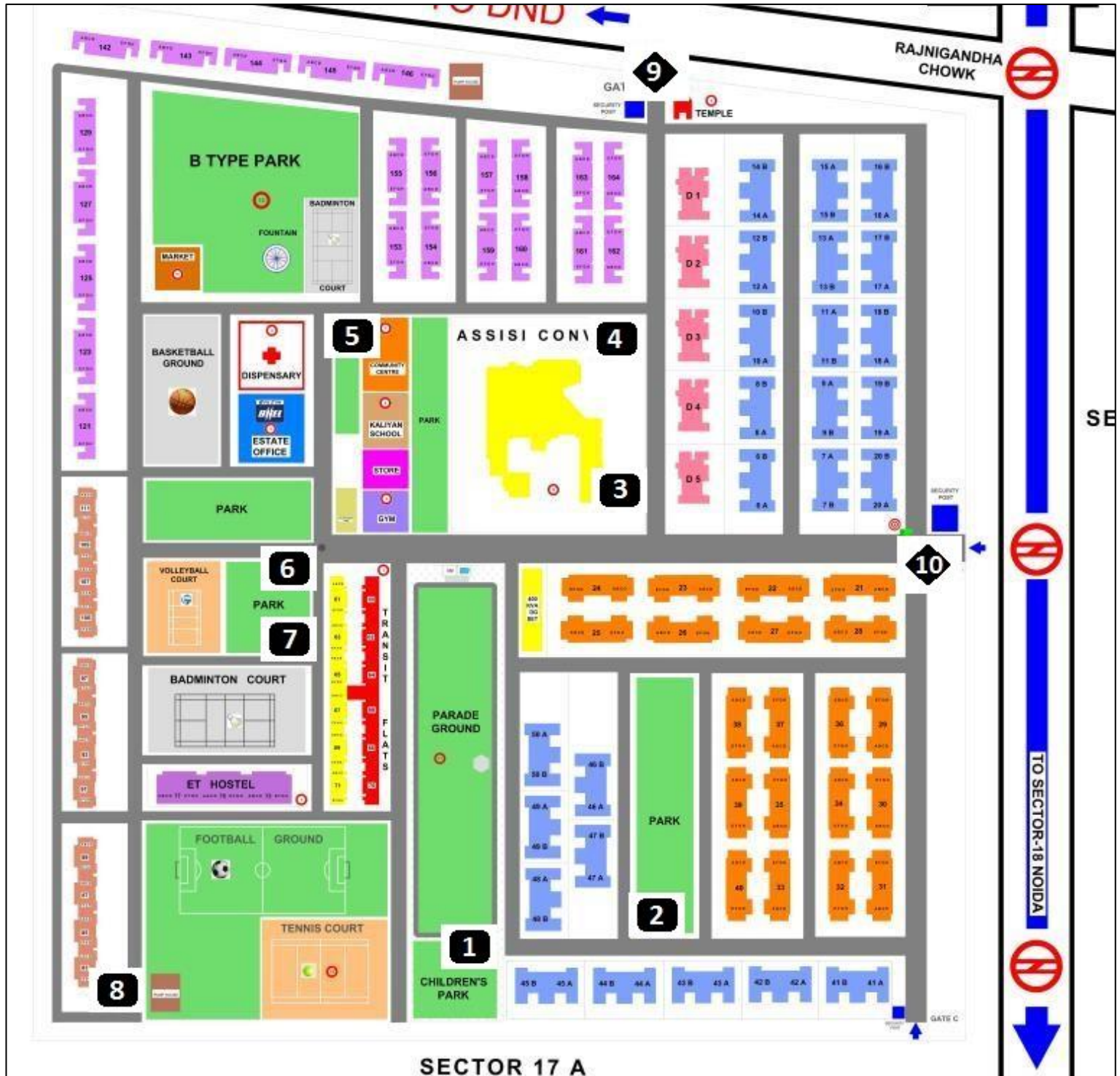
C. RECHARGE TRENCH (02 Nos.)

The specification for each trench (for gate A and B) should be 3m x 0.6m x 0.9m. There should be two recharge bores of 150 mm diameter (6 inches) with maximum depth of 16 m.

(Please refer to **Annexure – D**: Cross-section of a typical Recharge Trench)

It may be noted that the BOQ has been prepared items wise thus total quantities of items involved in construction of all recharge structures have been mention instead of separate items for Recharge Well /Recharge Trench /Desilting chamber.

**LAYOUT MAP OF BHEL TOWNSHIP, NOIDA
DEPICTING POSITIONS OF RECHARGE WELLS & RECHARGE TRENCHES**

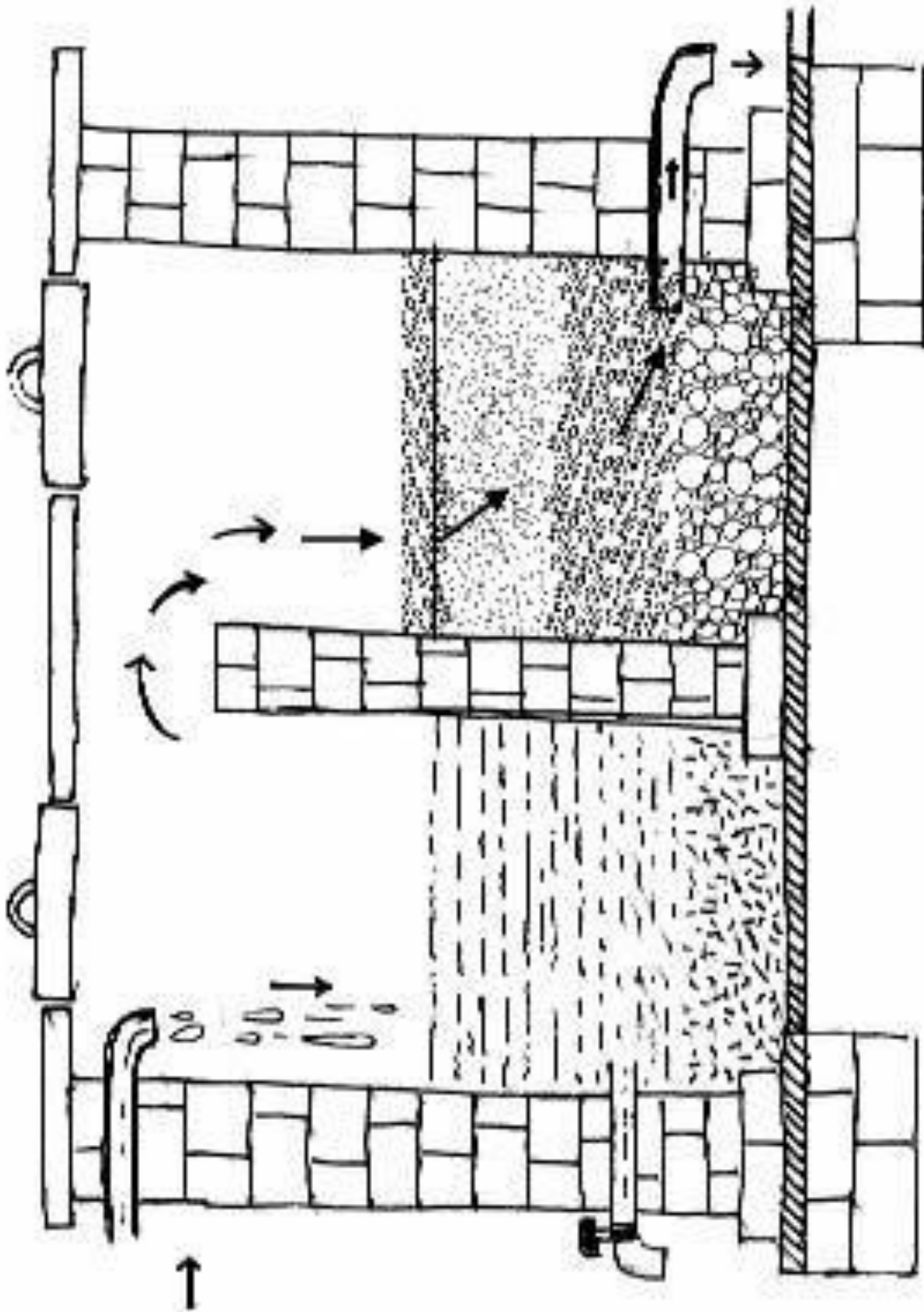


LEGEND

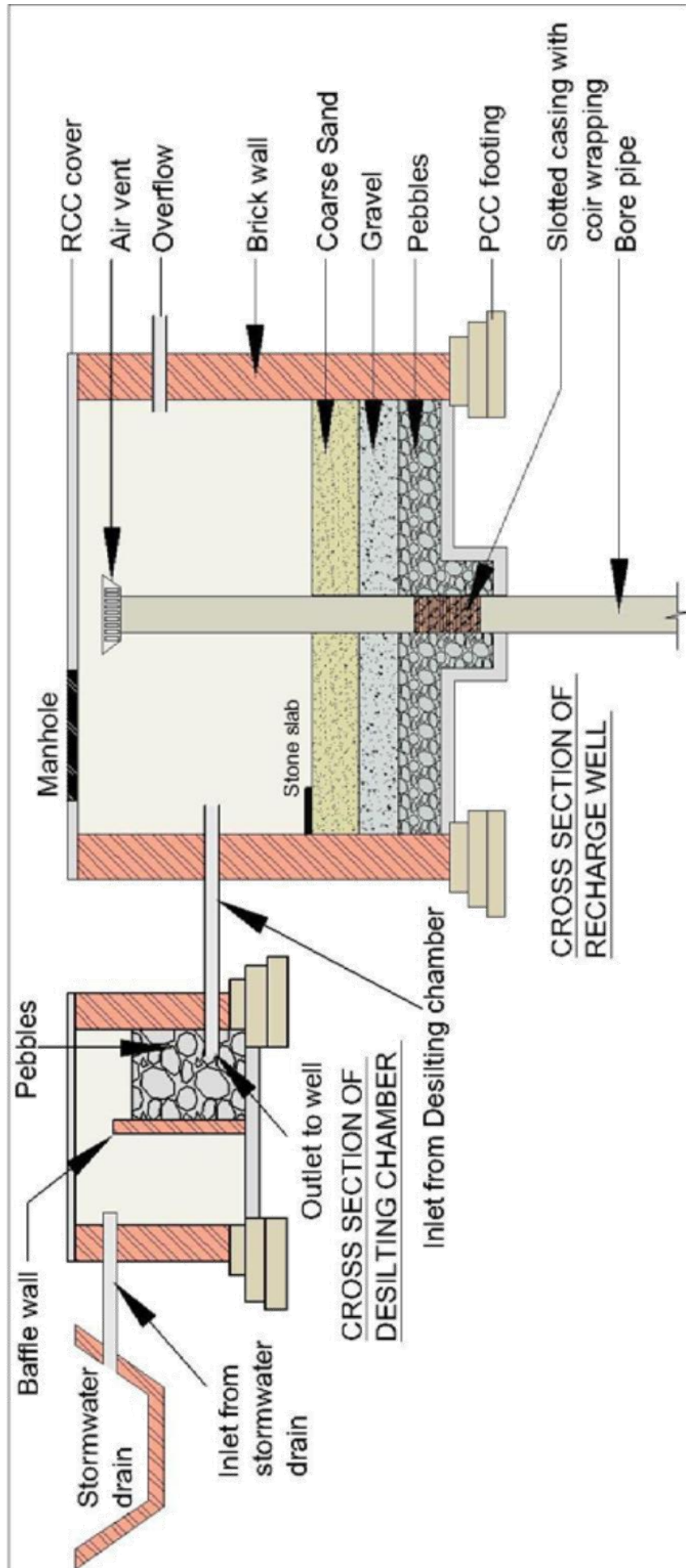
1 TO 8 - RECHARGE WELLS (ALONG WITH DESILTING CHAMBER)

9 & 10 - RECHARGE TRENCHES

Annexure – B: Cross-section of a typical Desilting Chamber



Annexure – C: Cross-section of a typical Recharge Well



Annexure – D: Cross-section of a typical Recharge Trench)

