

**ANNEX II**

**Specifications of Survey Monuments for**

**Vertical Controls**

## **Annex II Specifications of Survey Monuments for Vertical Controls**

### **1. Stainless Steel Rod Bench Mark**

A 160mm stainless steel rod surrounded by a small reinforced concrete block is securely embedded on the vertical surface of a rigid concrete structure. The protruding end of the stainless steel rod from the small concrete block is the level reference point of the bench mark. The detail specification is described in Drawing No. 3A on Page II-2.

### **2. Stainless Steel Staple**

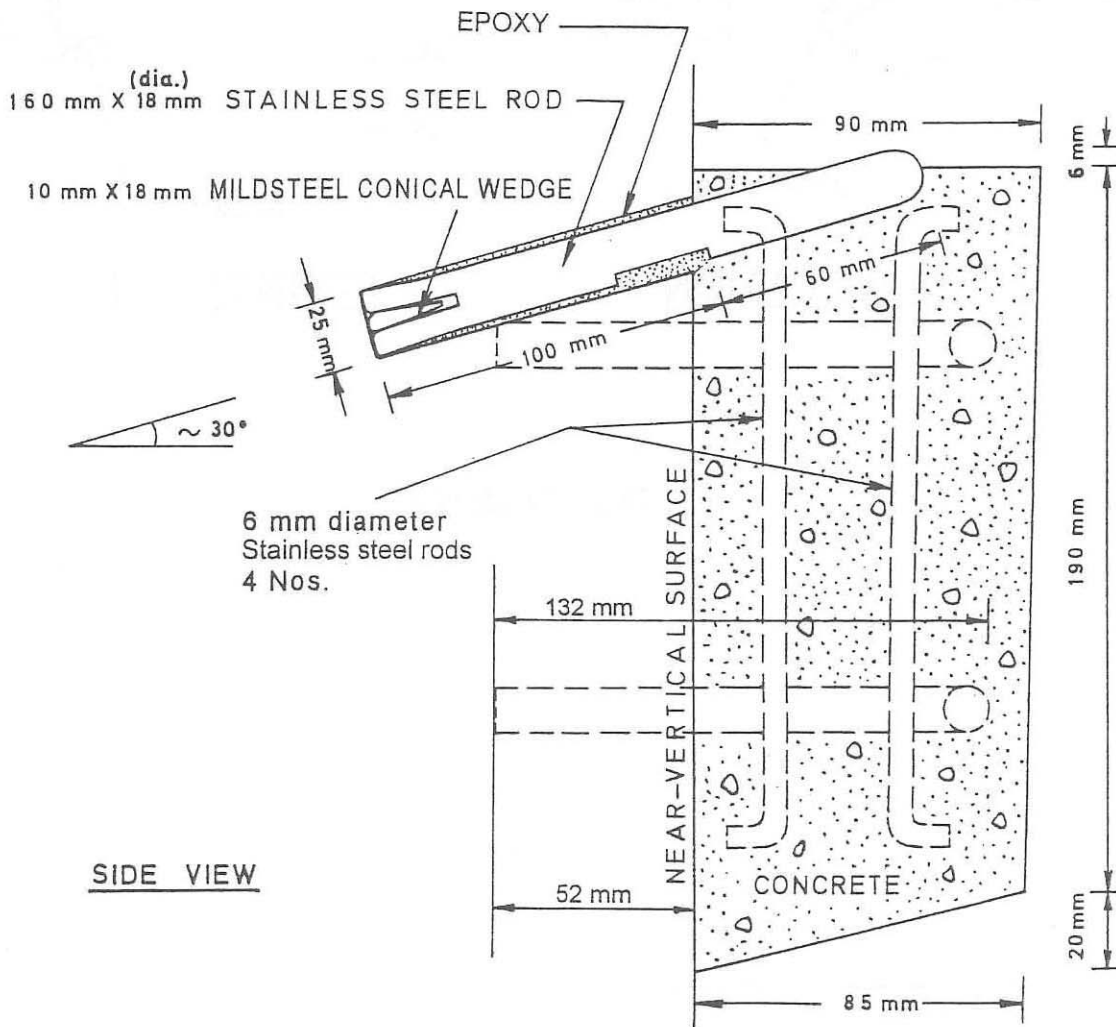
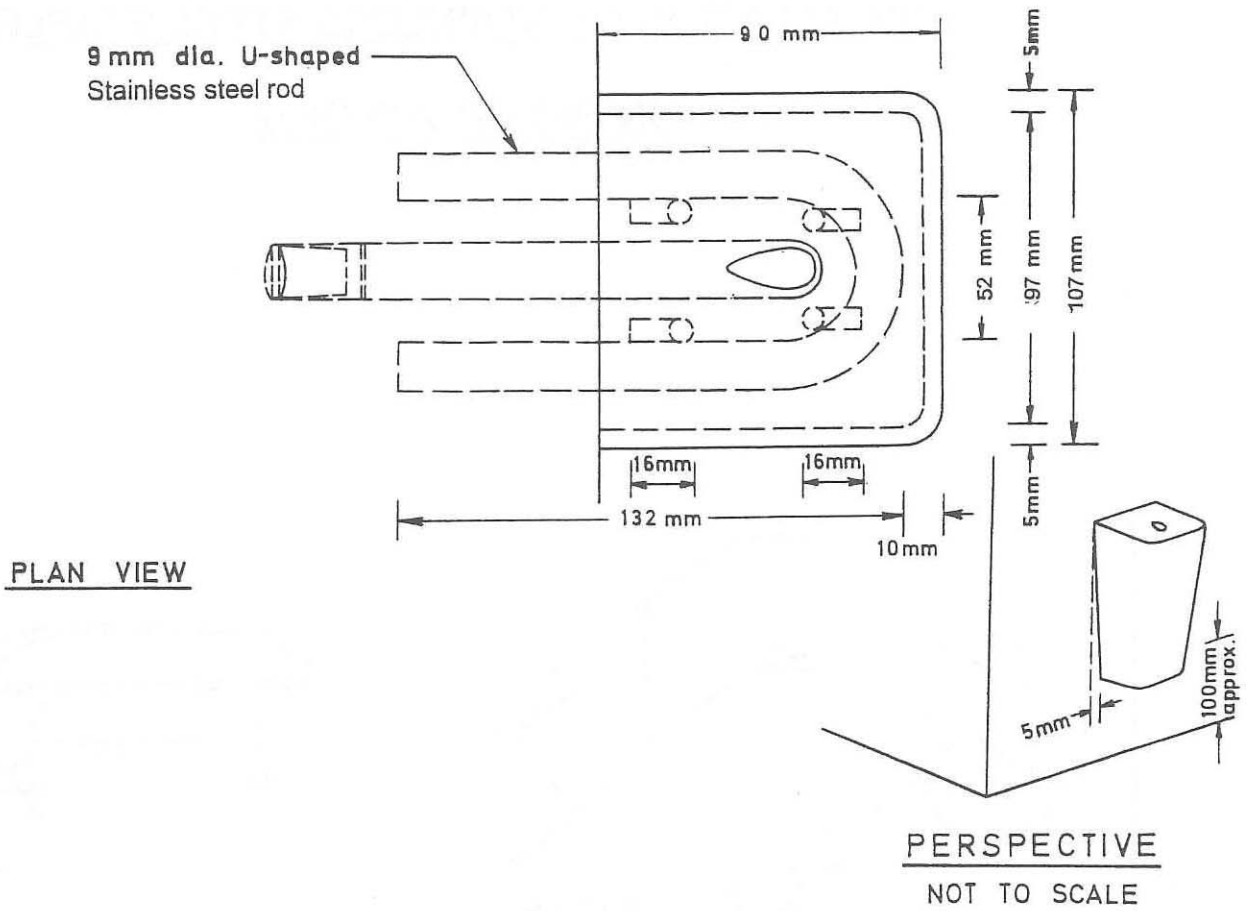
A stainless steel staple is securely embedded and properly leveled on the vertical surface of a rigid concrete structure. The flat and level portion of the staple is the level reference point of the bench mark. The detail specification is described in Drawing No. 3B on Page II-3.

### **3. Bedrock Bench Mark**

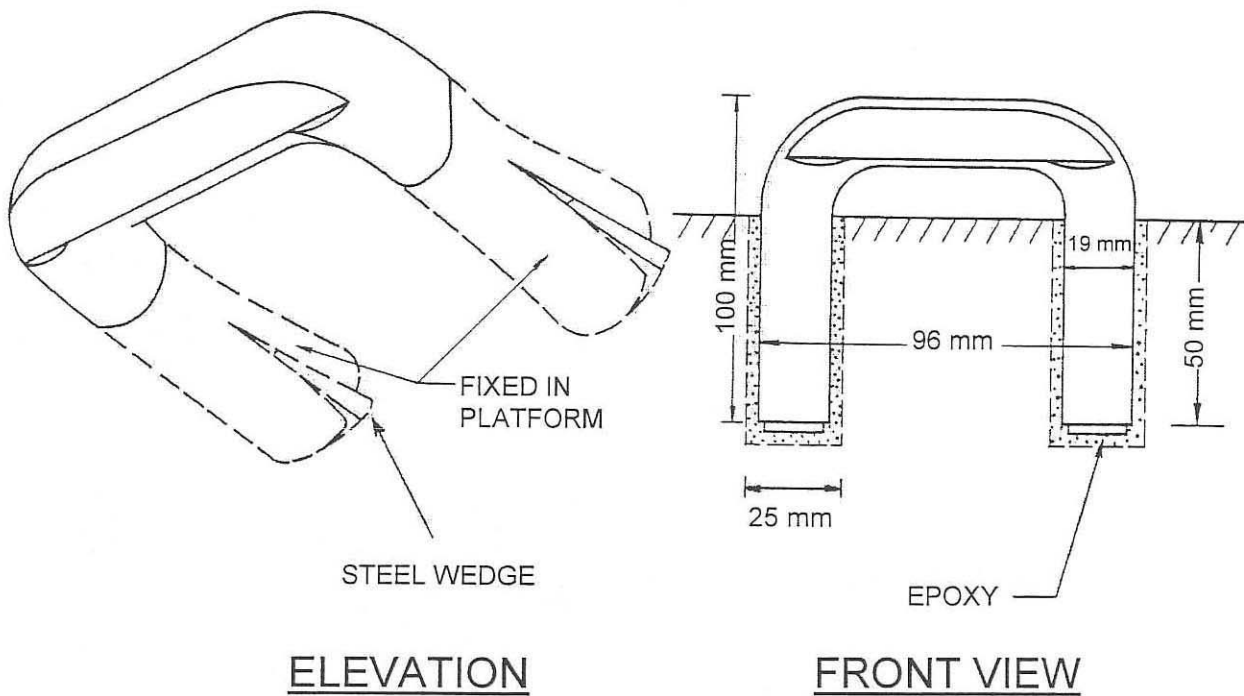
A bedrock bench mark is a very stable vertical control monument which is composed of a picket box with concrete platform and a reinforced mini-pile embedded into the bedrock under the ground. The detail specification is described in Drawing No. 12 on Page II-4.

# STAINLESS STEEL ROD BENCH MARK

DRAWING NO. 3A



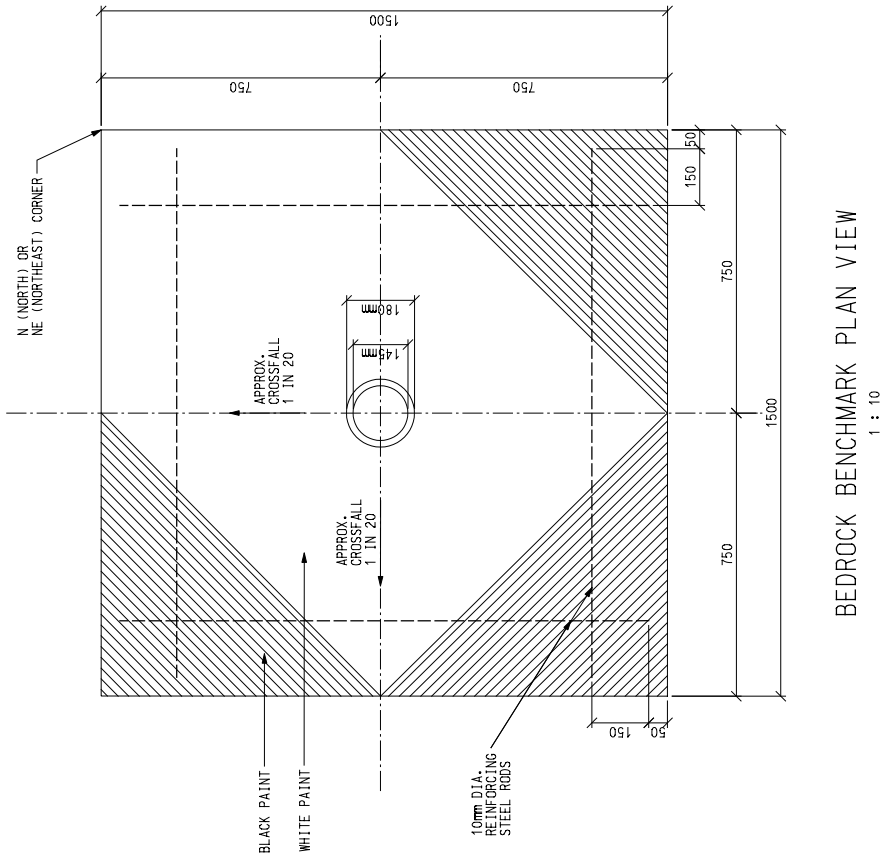
INSTALLATION OF STAINLESS STEEL STAPLE



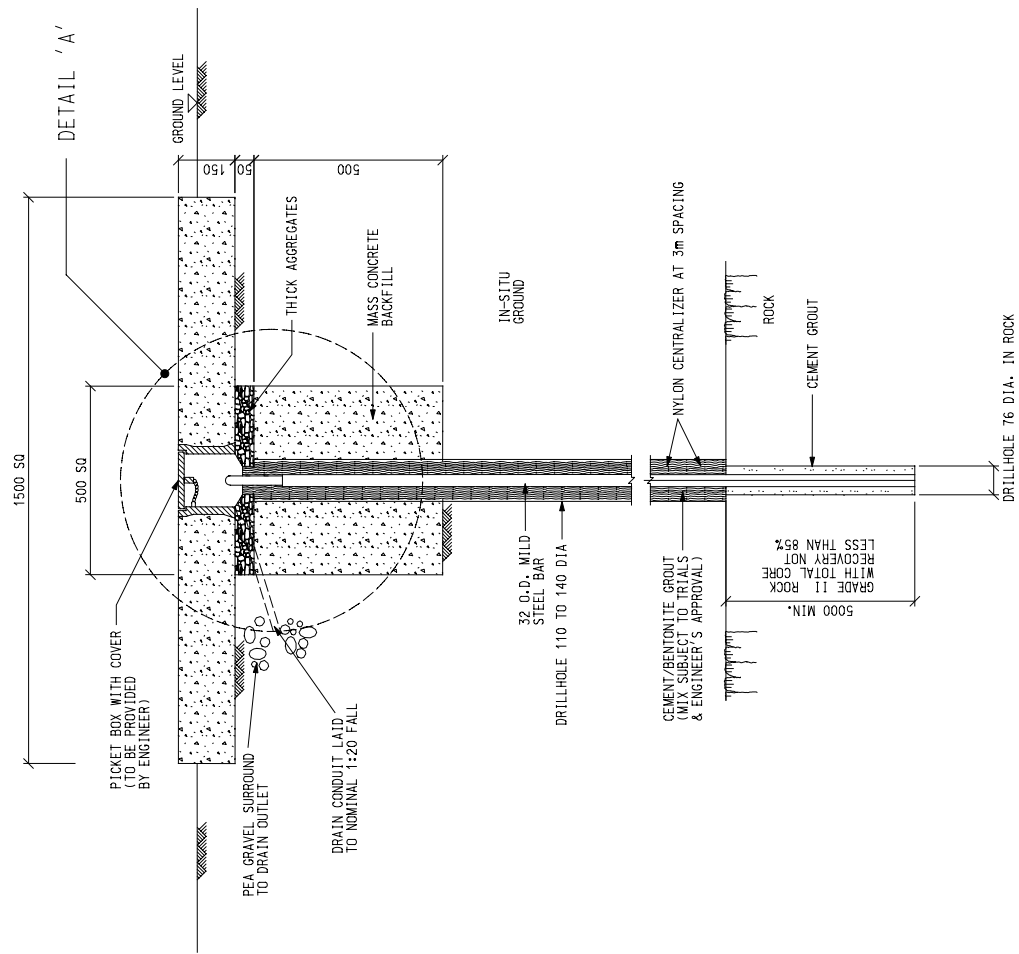
NOT TO SCALE

NOTES

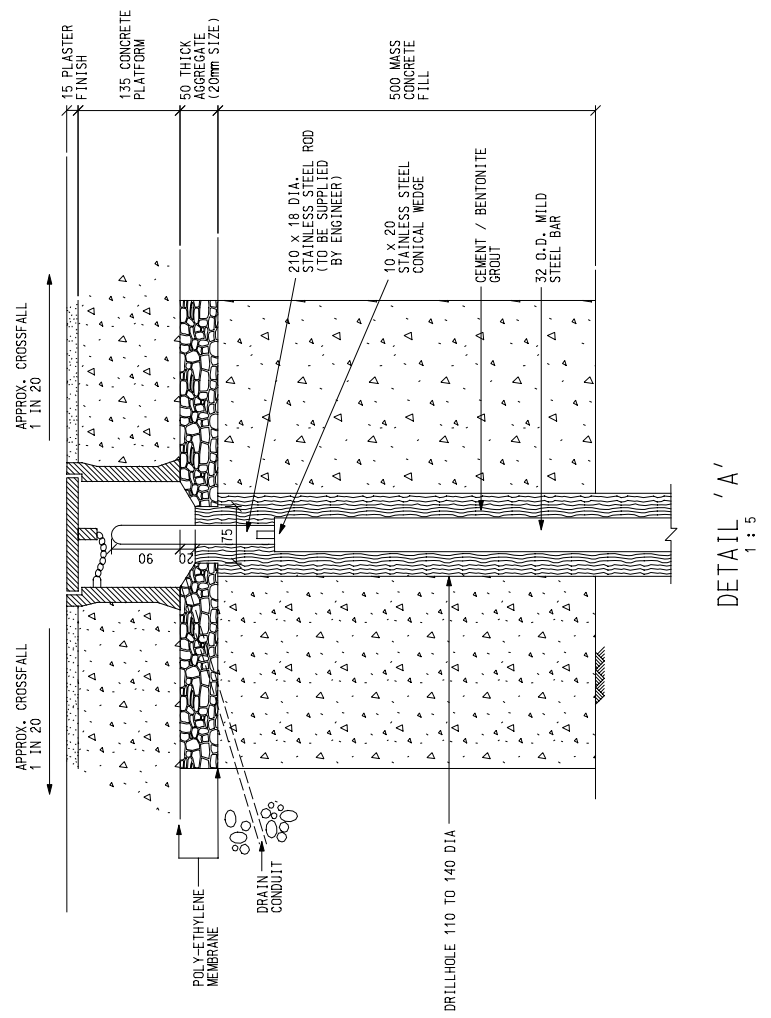
ALL DIMENSIONS ARE IN MILLIMETRES  
UNLESS OTHERWISE STATED.  
CONCRETE SHALL BE GRADE 20/20.  
COVER TO REINFORCEMENT SHALL BE 50mm.



BEDROCK BENCHMARK PLAN VIEW  
1 : 10



BEDROCK BENCHMARK  
1 : 5



DETAIL 'A'  
1 : 5

Drawing No.: 12

Drawing title

DETAILS OF BEDROCK  
BENCHMARK

Drawing date

JUNE, 2003

Scale

NOT TO SCALE