

## Non Destructive Testing

- **Rebound Hammer Test**

Conducting rebound hammer test as per IS 13311(Part-2), ASTM C 805. The rebound hammer test shall be conducted at all those points where UPV test has been performed.

- **Ultra-Sonic Pulse Velocity Test**

Conducting Ultra-Sonic Pulse velocity (UPV) test at selected location on RCC members of the Structures covered under the study to know about the homogeneity and quality of concrete. The test shall be performed as per IS 13311 (Part-1) / ASTM C 597

- **Core extraction and testing**

Extracting the concrete core samples of minimum 65 mm diameter and 100-150 mm length (approx.) at select location from RCC members of the structures covered under the study and evaluation the properties in the laboratory from the core samples selected. IS 456:2000; IS 516:1959; IS 1199:2002; ASTM C-42.

- **Cut AND Pull Out (CAPO) Test**

As per ASTM C-900

- **Half – Cell / Surface Potential Test**

Measuring the half-cell /surface potential at select location on RCC members of the structures covered under the study to understand the extent of reinforcement corrosion as per ASTM C 876

Ferro Scanning Test

At select location on RCC members of the structures covered under the study to see the adequacy of concrete cover to rebars and effect of carbonation.

- **Carbonation Test**

Measurement of carbonation depth by phenolphthalein spray test at select location on RCC members of the structures covered under the study to see the depth of carbonation.

Moisture Test by Moisture Meter

Moisture profiling of concrete with respect to depth.

- **Chemical Analysis**

Chemical analysis of chlorides, Sulphates, pH, alkali silica, etc on concrete powder collected from the structures, covered under the study, by drilling to understand the chemical deterioration / degradation of concrete and its effect on reinforcement corrosion.