Structural Sense
117, 2nd Floor, 3rd Ave, W Block, Anna Nagar, Chennai – 600 040
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SITE INSPECTION REPORT

Phase 01 – Initial Condition Assessment – Basement Floor

1. PROJECT INFORMATION

Date of Inspection	
Report Date	
Type of Inspection	Visual Site Inspection – Phase 01
Client	
Site Address	
Building Details	Residential Apartment – 9 Floors, 2 Blocks, Approx. 30 Years Old
Floors Inspected	Basement Floor

2. SCOPE OF INSPECTION

As per the client's requirement, a visual inspection of the building was carried out on 29 April 2026 as Phase 01 of the three-phase consultancy process. The inspection was carried out on the Basement Floor only, covering all accessible areas. This report is based solely on visual observations recorded during that visit.

3. OBSERVATIONS & FINDINGS

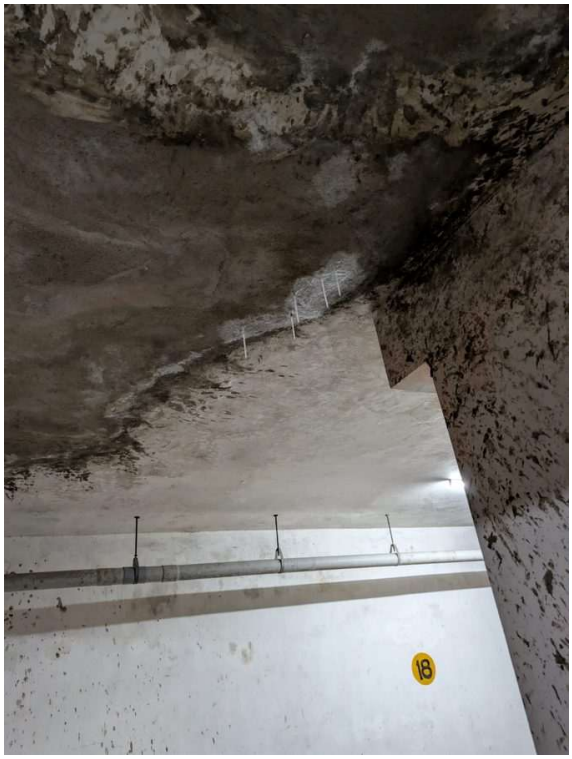
The following conditions were recorded during the site visit:

Sl. No.	Location	Observation
01	**Basement Columns P6, P10, P12, P32, P36, P49 & Expansion Joint Column**	Significant concrete deterioration is observed across multiple columns in the basement. Concrete cover has been lost at several locations with reinforcement steel visibly exposed. Heavy corrosion is observed on the exposed reinforcement bars. Column P10 shows loss of concrete at the bottom. Standing water and active moisture are observed around the bases of several columns. The extent of corrosion and concrete loss requires a detailed NDT investigation to assess the residual strength. **Site Photographs:**

Sl. No.	Location	Observation
		 *Left to right: Retaining wall area; Column P10 – concrete loss at bottom; Column P6 – vertical crack with moisture staining.*
02	**Basement Beams**	Severe concrete spalling and cracking are observed on beams across the basement. Reinforcement steel is fully exposed at several locations with heavy corrosion evident. The concrete has deteriorated significantly, exposing the reinforcement cage in certain areas. This condition directly affects the load-carrying capacity of the affected members and must be treated as a high-priority item. **Site Photographs:**

Sl. No.	Location	Observation
		 *Beam concrete loss with reinforcement exposed and corroded.*
03	**Basement Ramp Ceiling & Beam**	Concrete scaling and cracking are observed on the ceiling and beam of the basement ramp area. Reinforcement steel is visibly exposed at the beam. The damage is caused by moisture from the ramp slab above. The beam requires immediate repair. **Site Photographs:**  *Ramp ceiling – concrete scaling and beam deterioration with moisture damage.*

Sl. No.	Location	Observation
04	**Basement Ramp Side Wall**	Active water leakage with dripping is observed on the side wall of the basement ramp. The source of leakage is moisture from the ground and soil on the external side of the retaining wall. Water is penetrating actively through the wall and accumulating on the basement floor. **Site Photographs:**  *Ramp side wall – active water leakage with moisture staining and damage to electrical installation.*
05	**Basement Slab Ceiling – General**	Concrete scaling and surface deterioration are observed across most of the basement ceiling slab. Extensive moisture staining, efflorescence is visible over a large area. The slab surface has lost concrete cover in many places and the reinforcement is at risk of accelerated corrosion if not addressed. **Site Photographs:**

Sl. No.	Location	Observation
		 *Basement slab ceiling – widespread moisture staining, surface deterioration.*
06	**Community Hall Ceiling**	Severe concrete spalling is observed on the ceiling of the community hall. A large area of concrete cover has completely fallen away, exposing the full reinforcement grid. The reinforcement bars are heavily corroded. The source of moisture is the west side car exit area drain water overflow and leakage from the commercial building above. **Site Photographs:** 

Sl. No.	Location	Observation
		Community hall ceiling – full reinforcement grid exposed with heavy corrosion.
07	**Drain Point Leakage – Commercial Floor Line**	Active water leakage is observed at the drain pipe penetration point through the slab, carrying drainage from the commercial floor above. The bore packing around the pipe collar is inadequate and water is seeping through the gap. Black staining and moisture spread are visible around the pipe penetration. **Site Photographs:**  *Drain pipe penetration – inadequate bore packing with active leakage and staining.*
08	**Core Cutting Holes in Columns – Not Sealed**	Core cutting holes made in columns for testing purposes are observed to be open and not properly sealed. These open holes are allowing moisture entry and should be sealed immediately. **Site Photographs:**

Sl. No.	Location	Observation
		 *Column with core cutting hole not sealed, moisture entry visible.*

4. NEXT STEPS

NDT testing has already been carried out on site. Based on the test results and the findings of this Phase 01 inspection, the following are required to proceed with the Structural Analysis and Report:

Sl. No.	Item	Details
01	**NDT Report & Floor Plan Drawings**	The client is requested to share the completed NDT test report along with available floor plan and building drawings. If drawings are not available, field measurements will be taken floors to prepare as-built plans. Once the NDT report and drawings are received, a quotation for Structural Analysis will be issued separately.
02	**Structural Analysis & Report**	On receipt of the NDT report and drawings, a detailed structural analysis will be carried out evaluating the load capacity and condition of all members. A Structural Analysis Report will be issued covering findings and a programme of strengthening recommendations.
03	**Water Leakage Investigation & Test Pits**	To identify and stop the active water leakage sources, the following site investigations are required. On the commercial bike parking side and west side, a test pit should be excavated near the retaining wall to a depth of approximately 5 feet to inspect the wall condition below ground and identify the leakage path from

Sl. No.	Item	Details
		the external soil side. In the ramp ceiling area, concrete should be removed at one corner above the ramp ceiling to inspect the internal condition of the slab and identify the source of moisture entering below. Once the leakage sources are confirmed, appropriate waterproofing and sealing works will be recommended and carried out to prevent further water ingress and protect the basement from ongoing deterioration.

5. CONCLUSION

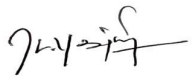
The basement floor of Prince Towers shows deterioration at multiple locations across the columns, beams and ceiling slab. Active water leakage from the retaining wall, drain overflow from the west side car exit area and leakage from the commercial floor above are the ongoing sources of moisture accelerating the deterioration.

The NDT report and building drawings should be shared at the earliest so that the Structural Analysis can be completed and strengthening recommendations issued. The water leakage investigation through test pits should also be carried out alongside to identify and seal all active sources of water entry into the basement.

AUTHORISATION

For: Structural Sense

Er. S. Pughalmathi



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Authorised Signatory
Date: