

Government of Gujarat
VISHWAKARMA GOVERNMENT ENGINEERING COLLEGE
CHANDKHEDA AHMEDABAD
(Affiliated to Gujarat Technological University)

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No. : VGEC/AMD/Consultancy/KV Ahd cantt/Report/ 1121

Date: 23/01/2020

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To
The Principal,
Kendriya Vidyalaya Ahmedabad Cantt
Near Hanuman camp, Airport Road, Ahmedabad, GJ

Sub: Structural Stability Assessment Report for the Kendriya Vidyalaya Ahmedabad Cantt
Ref: Your letter no. F.No.12029/2018-19/KVAC/AMD/Dt: 07.06.2018

Sir,

With regard to your referenced letter and agreed terms, we have conducted physical verifications and testing at critical locations on dated 28/11/2019 at the Kendriya Vidyalaya Ahmedabad Cantt for school building.

In absence of plans - any structural drawings and details, information relating to the design and history of maintenance, the visual inspection was carried out. Visual inspection provided details related to material deterioration and structural serviceability.

The following general observations/comments are obtained.

- Moisture related physical deterioration is present in the wash rooms.
- The brick walls are of sound construction. Some minor cracks and moisture is present in some of the walls.
- At first floor, Cracks in the exterior beams of middle portion of the building.
- Some shallow cracks/some fairly wide cracks are observed.
- Dampness in the walls of toilet blocks is observed.
- No foundation assessment is done, however no settlement is observed.
- All chhajja and lintel at some places need major repairs mainly on external side of building due to high deterioration.
- RCC and CC work needs major repairs at select location where cracks and deterioration is seen.
- Common wash room (Ladies) on first floor need immediate repairs for slab plaster in middle portion of the wash room.
- Terrace needs to be repair for water proofing work to avoid water percolation.
- Expansion joint needs proper treatment to avoid water and moisture ingress in the school building.

For assessing the quality and integrity of concrete, ultra pulse velocity and rebound hammer tests were performed at selected critical locations. The ultra pulse velocity of concrete is mainly related to the density and modulus of elasticity of concrete. Due to poor quality of concrete, cracks, voids or deterioration of concrete, lower pulse velocity is obtained, which indicates quality of concrete is doubtful at few places. In this condition, no assessment of concrete strength should be made from rebound indices. Therefore further action needs to be taken, in form of immediate repairs for the portion with exposed reinforcement by adopting standard practices. Repair the sources of moisture which leads to deterioration in the building

Signature
AP

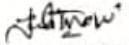
especially in and out of toilet blocks, Repairs of the Chhajjas, lintel, beams and other element on the outer side of school building with appropriate techniques required.

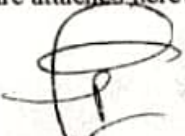
The buildings are classified as 'Safe', 'Require minor repairs', 'Require major structural retrofitting & repairs' and 'Unsafe' based on testing results obtain at critical locations, statistical analysis and above observations.


A detailed description of the building and their evaluation is presented in the tabular format as below.

Sr. No.	Building Name	Condition of the building	Remarks
1	Primary Section (G.F and F.F.)	Structurally Stable & Require minor repairs	It is advisable to carry out appropriate routine maintenance work
2	Higher Secondary Section (G.F and F.F.)	Structurally Stable & Require minor repairs	
3	Middle portion connecting Primary section and Higher secondary section (G.F and F.F.)	Structurally Stable & Require minor repairs	

The scope of work included preliminary investigations of the structures to ascertain its serviceability and immediate safety aspects. For minor repairs of the building, the client may appoint a new agency to execute the further work. The list of team members involved in the audit, testing reports and analysis are attached herewith.


Prof K L Timani
HOD AMD


Prof Dr P P Lodha
HOD CED


PRINCIPAL

Enclosure:

- Annexure-I – List of Team members.
- Annexure-II – Testing Report of Rebound Hammer Test.
- Annexure-III – Testing Report of Ultra Sonic Pulse Velocity Test.