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STRUCTURE STABILITY CERTIFICATE

This is to certify that the existing Anglo Arabic Sr. Sec. School building situated at Ajmeri Gate, New Delhi, was personally surveyed by me on 15.06.2023. During this preliminary / visual inspection I found that some blocks of the school are load bearing structures and some are RCC framed structures. Some blocks are double storeyed and some are single storeyed structures. The description and the Structural conditions of each block are as follows:

BLOCK-1: It is a two storeyed old load bearing structure and one small unit exists over the first floor towards North East corner of this block. This block consists of class rooms, administration, hostel, wide verandahs passages, toilet blocks at ground as well as first floor. There are three no. of passages which connects this block to the other blocks with a big entrance towards East at ground floor. It also consists of big lawns enclosed by blocks 1 & 2. (As shown in the drg. attached herewith).

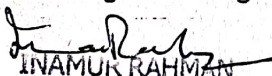
All the load of this block is borne by 15" to 30" thick old Lakhori brick masonry walls with concrete mixture of lime, surkhi etc. at ground as well as first floor. The façade of the main entrance of this block covered by red sand stone over the Lakhori brick masonry walls. Almost all the plaster of the walls are in good condition but at some places there are minor repairable cracks found in it. And some places there is no plaster found on the walls and the bare Lakhori bricks could be seen. The plaster of one of the connecting passages is peeled off & bare bricks could be seen also. This peeling is due to the dampness in the wall. All the minor cracks are in repairable conditions. No differential settlement found in this block also.

The old red sand stone flooring is in good condition at ground as well as first floor. And the marble flooring of toilet block is also in good condition.

Almost all the roofs of this block consist of Jack Arch Roofs in plain as well as round in shape. Roof of verandah near the grave yard of block 2 is in red sand stone. Roof of a principal room consists in I-Section with red sand stone. At some places a small dampness occurred in the roof due to the minor cracks at wall and floor junctions at terrace level. Besides this there is no sign of structure failure found in the block.

BLOCK-2: It is a big mosque with open court yard and an open grave yard of Ghaziuddin enclosed by marble jail. This single storeye structure made up of Lakhori brick masonry walls with concrete mixture of lime, surkhi etc. covered with red sand stone towards and red stone pillars.

All the load of this block including three no. of gumbad (domes) is borne by 12" to 24" thick old Lakhori brick masonry walls and stone pillars. There is no crack, settlement of wall and any other structure failure found in this block. All the walls, red sand stone and marble flooring found in good conditions.


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BLOCK-2.1: It is an old Dargah in single storeye towards North West corner of the school which is found in good condition.

BLOCK-3: This block used as an Anglo Arabic Model School building consists of class rooms, toilets, staff & principal rooms. Some parts of this block are single storeye and some parts are double storeyed structure. A small unit is found in the form of a temporary tin shed structure & enclosed by tin shed also at first level.

All the load of the building is borne by 9" to 21" thick brick & Lakhori brick masonry walls with RCC columns placed at different places in the double storeyed structure. Some repairable cracks are found in the plaster of the walls. I also found that a small portion of a boundary wall of its lawn is in dilapidated condition due to the load of a tree. It should be dismantled and rebuilt the same as early as possible. A dampness found in the wall of a single storeye toilet block towards North West side. It should treat as early as possible.

The kota stone flooring of this block found in good condition and no sign of settlement found in the flooring.

The roof of a single storeye building consist of Jack Arch Roof and not found any crack & dampness in the roof. Some of the roofs of double storeyed structures are in I-sections with red sand stone and some are in RCC roof. There are no crack and any other sign of structure failure found in these double storeyed parts. But a projection at first floor in the form of sun shade loses its concrete and the steel could be seen. It should be covered as early as possible for protection of the steel before starting of rusting process on it.

BLOCKS-4,5 & 6: These blocks exist towards West side of the school and used as class rooms. The load of all these blocks is borne by 9" thick brick masonry walls. At some places the dampness found in their walls which could lead to loses the strength of the walls. It should be treated as soon as possible. Almost all the walls are in good conditions and enough to withstand the load of the structures.

The kota stone flooring and the sloped roof of these structures are in good conditions and there is no sign of failure found in these structures.

BLOCK-7: It is a two storeyed RCC framed structure with 9" thick brick masonry walls at some places. It is situated towards South side of the school and used as class rooms. Due to a framed structure almost all the load of the building is borne by the RCC columns.

The kota stone flooring and RCC roof of this structure is in good condition and there is no sign of failure found in this building.

BLOCK-8: It is a two storeyed structure towards South West corner of the school and used as science labs for Anglo Arabic Model School.

All the load of the building is borne by 9" thick brick masonry walls through RCC beams. Some repairable minor cracks are found in the walls.

The flooring of the building is in good condition and the RCC roof of the building found a little bit of dampness. At some places the concrete of the RCC work found missing and the corroded steel are visible. It should be covered as early as possible with special care without disturbing the other member. It also requires some treatment for its protection from the atmospheric conditions.



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BLOCK-9: It is a single storeye structure used as library building. Some portion of this block consists of Jack Arch Roof and some portion covered with Asbestos Cement Corrugated sheets.

The load of the building is borne by 9" thick brick masonry walls. This wall is good enough to withstand the load of the building. The flooring as well as roof of this block are found in good condition and also found no sign of structure failure.

BLOCK-10: This single storeye block is used as an Auditorium with mezzanine in half portion, class rooms & a scout room.

The load of the building is borne by the brick masonry walls and these walls are good enough to withstand the load of this building. The flooring as well as roof of this block are in good condition and found no sign of structure failure.

BLOCK-11: It is a single storeye structure used as canteen. The roof of this block consists of I-section with red sand stone. The load of the roof is borne by the RCC columns transferred through the beams. This block is enclosed by iron jail in between the RCC columns. The flooring as well as roof are in good conditions.

BLOCK-12: It is a small single storeye toilet block found in good condition.

BLOCK-13: It is used as a rest room of Imam of the Mosque. The condition of this block is good and no sign of failure found in this block.

BLOCK-14: It is a single storeye structure used as a gymnasium for the school exist towards South East corner. The roof of the structure covered with Asbestos Cement Corrugated sheets. The load of the building is borne by 9" thick brick masonry walls.

There is no major cracks are found in the building either in walls or in floor as well as in the roof also.

BLOCK-15: It is used as a toilet block for hostel towards playground of the school. The load of the building is borne by the 9" thick brick masonry walls. There is no crack found in the walls. Some minor cracks are found in the plaster and at some places the plaster is in dilapidated condition. The RCC roof is also in the dilapidated condition by losing its concrete work and the corroded steel are visible. It should be covered as early as possible with special care without disturbing the other member.

BLOCK-16: It is a two storeyed RCC framed structure used as science labs for the school. There is no sign of structure failure found in this block. The brick walls, roofs and floors are in good conditions. But a minor seepage occurs at some places which can be treated by applying the water proof paint over it.

BLOCK-17: It is a single storeye structure used as a ladies' toilet block & found in good condition.

BLOCK-18: It is a single storeye structure used as a staff room. Almost all the structure is in good condition but requires some treatment for its protection from the atmospheric conditions.

Besides this preliminary survey of the above said blocks I also found that the front boundary wall of the school is in dilapidated condition and its repair work is under progress under the supervision of school staff.

All the blocks with description are shown in the attached survey plans.


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RECOMMENDATIONS:

1. All unplaster surfaces should be covered with plaster as early as possible for protection of brick masonry walls by ingress of water in it. Otherwise, the wall will lose its strength.
2. All loose plaster should be removed and replaster the surface after cleaning.
3. It is not advisable to remove / deviate any structural member either it is in the old brick masonry structures as well as RCC framed structures.
4. All the visible steel / reinforcement of the RCC members covered with the concrete as soon as possible for its protection from atmosphere & corrosion.
5. The part of a brick wall in block no. 3 towards block no. 4 which is under dilapidated condition due to load of a tree should be dismantled and rebuilt the same as early as possible.

CONCLUSION:

Preliminary survey has been carried out and found that the brick masonry walls of all the load bearing structures are good enough to withstand the load of the buildings and in the light of the above-mentioned recommendations the above said school is safe & sound for usable condition.


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