[ಲೋಕೋಪಯೋಗಿ ಇಲಾಖೆ]

Office of the Assistant Executive Engineer, Public Works Department Division, Gowribidanur	ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಇಂಜಿನಿಯರ್‌ರವರ ಕಛೇರಿ ಲೋಕೋಪಯೋಗಿ ಇಲಾಖೆ ಉಪ ವಿಭಾಗ, ಗೌರಿಬಿದನೂರು
E-mail: gbdaeepwd@gmail.com	

ಸಂಖ್ಯೆ: ಸ.ಕಾ.ಇಂ./ಲೋ.ಇ/ಉವಿ/ಗೌರಿಬಿದನೂರು/ಕಿಇಂ/ಕಟ್ಟಡ ಸುರಕ್ಷತಾ ಪ್ರಮಾಣ ಪತ್ರ/2024-25/ 62 /ದಿನಾಂಕಃ23/05/2024

ರವರಿಗೆ,

ಪಿನಾಕಿನಿ ಎಜುಕೇಶನಲ್ ಟ್ರಸ್ಟ್
ರೈಮಂಡ್ಸ್ ಫ್ಯಾಕ್ಟರಿ ಹಿಂಭಾಗ
ಬೈಪಾಸ್ ರಸ್ತೆ ಗುಂಡಾಪುರ
ಗೌರಿಬಿದನೂರು-561208
ಚಿಕ್ಕಬಳ್ಳಾಪುರ ಜಿಲ್ಲೆ.

ಮಾನ್ಯರೆ,

ವಿಷಯ: ಪಿನಾಕಿನಿ ಎಜುಕೇಶನಲ್ ಟ್ರಸ್ಟ್, ರೈಮಂಡ್ಸ್ ಫ್ಯಾಕ್ಟರಿ ಹಿಂಭಾಗ, ಬೈಪಾಸ್ ರಸ್ತೆ ಗುಂಡಾಪುರ ಗೌರಿಬಿದನೂರು ತಾಲ್ಲೂಕು, ಚಿಕ್ಕಬಳ್ಳಾಪುರ ಜಿಲ್ಲೆ ಕಟ್ಟಡಕ್ಕೆ ಸುರಕ್ಷತಾ ಪ್ರಮಾಣ ಪತ್ರ ನೀಡುವ ಬಗ್ಗೆ.

ಉಲ್ಲೇಖ:1. ಸರ್ಕಾರದ ಸುತ್ತೋಲೆ ಸಂಖ್ಯೆ: ಲೋಇ 59 ಬಿಇಡಿ 2019 ದಿ: 29-10-2020
2. ಸರ್ಕಾರದ ನಡವಳಿ ಸಂ:ಇಪಿ 46 ಎಸ್‌ಹೆಚ್‌ಹೆಚ್ 2020 ದಿ: 12-10-2020
3. ಸರ್ಕಾರದ ಸುತ್ತೋಲೆ ಸಂ:ಇಪಿ/46/ಎಸ್‌ಹೆಚ್‌ಹೆಚ್/2020 ದಿ: 10-11-2020 (ಪ್ರತಿ ಲಗತ್ತಿಸಿದೆ)
4. ತಮ್ಮ ಮನವಿ ಪತ್ರದ ದಿ:-29.04.2024

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ಮೇಲ್ಕಂಡ ವಿಷಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ, ಪಿನಾಕಿನಿ ಎಜುಕೇಶನಲ್ ಟ್ರಸ್ಟ್, ರೈಮಂಡ್ಸ್ ಫ್ಯಾಕ್ಟರಿ ಹಿಂಭಾಗ, ಬೈಪಾಸ್ ರಸ್ತೆ ಗುಂಡಾಪುರ, ಗೌರಿಬಿದನೂರು ತಾಲ್ಲೂಕು, ಚಿಕ್ಕಬಳ್ಳಾಪುರ ಜಿಲ್ಲೆ ಕಟ್ಟಡಕ್ಕೆ ಸುರಕ್ಷತಾ ಪ್ರಮಾಣ ಪತ್ರವನ್ನು ನೀಡಲು ಉಲ್ಲೇಖ ಪತ್ರ (4)ರಲ್ಲಿ ಈ ಕಛೇರಿಗೆ ಕೋರಿರುವ ಮೇರೆಗೆ ಈ ಕಛೇರಿಯಿಂದ ದಿ:-08.05.2024ರಂದು ಸದರಿ ಸಂಸ್ಥೆಯ ಕಟ್ಟಡವನ್ನು TSB Construction and Developers, Gowribidanur ಇವರೊಂದಿಗೆ ಜಂಟಿ ಪರಿವೀಕ್ಷಣೆ ನಡೆಸಿ ಈ ಕೆಳಗಿನಂತೆ ವರದಿ ಮಾಡಲಾಗಿದೆ.

ಕಟ್ಟಡಗಳು ನೆಲ, ಮೊದಲನೇ, ಎರಡನೇ ಮತ್ತು ಮೂರನೇ ಅಂತಸ್ತನ್ನು ಒಳಗೊಂಡಿದ್ದು, ಕಟ್ಟಡವು ಗೌರಿಬಿದನೂರು ತಾಲ್ಲೂಕು ಕಸಬ ಹೋಬಳಿ ಗೌರಿಬಿದನೂರು ನಗರಸಭೆ ವ್ಯಾಪ್ತಿಗೆ ಒಳಪಟ್ಟಿದ್ದು, ಕಟ್ಟಡದ ಪರಿವೀಕ್ಷಣೆ ಸಮಯದಲ್ಲಿ ಈ ಕೆಳಕಂಡ ಅಂಶಗಳನ್ನು ಗಮನಿಸಲಾಗಿರುತ್ತದೆ.

Criteria	NBC Standards	Actual Observation	Remarks (Satisfactory/ Not Satisfactory)
1) Minimum Distance from Electrical Line	(A) For < 650 volts line i) 1.20m Horizontal distance ii) 2.50m Vertical distance (B) For > 650 volts line (Ref Page 138, NBC 2016)	No Electrical Lines observed around the School Building	Satisfactory
2) Ceiling Height	For Educational Building ≥ 3.60m	Ground Floor = 3.00m First Floor = 3.00m Second Floor = 3.00m Third Floor = 3.00m	Satisfactory
3) Minimum clear width of staircase, corridor, exit doorways, ramps	Width per Person (users) Stairways = 10mm/Person Ramp = 6.50mm/Person Minimum widthsStairs = ≥ 1.50m, Tread = 0.30m, Riser = 0.15m	Staircase width = 1.50m, Tread = 0.35m, Riser = 0.15m	Satisfactory

Criteria	NBC Standards	Actual Observation	Remarks (Satisfactory/ Not Satisfactory)
4) Emergency vehicle Access requirement	Alround building minimum 6.00m	Provided	Satisfactory
5) Bathroom & WC requirement	WC = 1.10 Sqm	Ground Floor WC = 1.10 Sqm First Floor WC = 1.10 Sqm Second Floor WC = 1.10 Sqm Third Floor WC = 1.10 Sqm	Satisfactory
6) Ramp gradient requirement	Maximum gradient = 1:10	Provided	Satisfactory
7) Separate Toilet for Differently abled persons	Each floor minimum 1 toilet	provided	Satisfactory
8) Ramp/ Lift for Disobled persons	Should be provided above Ground Floor	Ramp provided	Satisfactory

Note: Above criteria's are considered in view of minimum safety of schoolchildren (Neglecting elders and persons with disabilities) for temporary permission of school building only.

ಕಟ್ಟಡಗಳ ಸುರಕ್ಷತೆಗೆ ಸಂಬಂಧಿಸಿದಂತೆ, ಕಟ್ಟಡದ ಸದೃಢತೆಯ ಬಗ್ಗೆ TSB Construction and Developers, Gowribidanur ರವರ ಮುಖಾಂತರ ಪರೀಕ್ಷೆಗಳನ್ನು ಕೈಗೊಂಡು, Safety Check Report ಅನ್ನು ನೀಡಿರುತ್ತಾರೆ. ಸದರಿ ವರದಿಯಲ್ಲಿ ಶಾಲಾ ಕಟ್ಟಡವು Structurally Sound ಇರುತ್ತದೆಂದು ದೃಡೀಕರಿಸಿರುತ್ತಾರೆ.

ಸದರಿ ಕಟ್ಟಡದ Structure stability ಪ್ರಮಾಣ ಪತ್ರ ಹಾಗೂ ಸಿವಿಲ್ ಇಂಜಿನಿಯರರು ಕಟ್ಟಡವನ್ನು ನಿರ್ಮಿಸಿರುವ ಬಗ್ಗೆ ಪ್ರಮಾಣ ಪತ್ರ ನೀಡಿದ್ದು, ಕಟ್ಟಡವು ತೃಪ್ತಿಕರವಾಗಿರುವುದರಿಂದ ಕಟ್ಟಡವು ಸುರಕ್ಷಿತವಾಗಿರುತ್ತದೆಂದು ಈ ಮೂಲಕ ಧೃಡೀಕರಿಸಿದೆ.

ತಮ್ಮ ವಿಶ್ವಾಸಿ,

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಇಂಜಿನಿಯರ್,
ಲೋಕೋಪಯೋಗಿ ಇಲಾಖೆ ಉಪ ವಿಭಾಗ,
ಗೌರಿಬಿದನೂರು

REPORT NO : TSB/107/2024 – 2025

SAFETY CHECK REPORT ON EXISTING SCHOOL
BUILDING OF PINAKINI EDUCATIONAL TRUST
BEHIND RAYMOND FACTORY , BYPASS ROAD GUNDAPURA,
GOWRIBIDANUR – 561208 CHIKKABALLAPUR.

TSB CONSTRUCTIONS AND DEVELOPERS
9986790251
9148822750
GOURIBIDANUR

NAME OF THE PROJECT

SAFETY CHECK REPORT ON EXISTING SCHOOL BUILDING OF PINAKINI EDUCATIONAL TRUST BEHIND RAYMOND FACTORY BYPASS ROAD GUNDAPURA, GOWRIBIDANUR – 561208 CHIKKABALLAPURA DISTRICT.

REPORT NUMBER

Report. No.TSB/107/2024-2025

CLIENTS REFERENCE

Person to Person

FIELD TEST CONDUCTED by

MR. PARAMESHA T B (M, Tech)
TSB CONSTRUCTIONS AND DEVELOPERS
GOWRIBIDANUR – 561208

FIELD TEST CONDUCTED IN PRESENCE OF

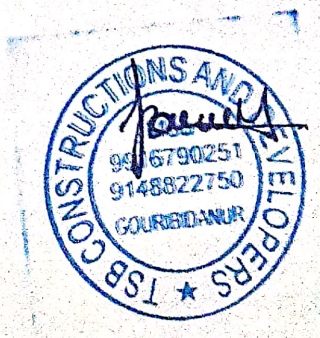
PWD OFFICER'S

REPORT SUBMITTED TO

PINAKINI EUCATIONAL TRUST BEHIND RAYMOND FACTORY,
BYPASS ROAD GUNDAPURA, GOWRIBIDANUR – 561208
CHIKKABALLAPUR DISTRUCT

REPORT SUBMITTED ON

08.05.2024



TSB CONSTRUCTIONS AND DEVELOPERS

GSTIN: 29FRNPP2592D1Z8

STRUCTURAL STABILITY CERTIFICATE

To,

Pinakini Educational Trust
Behind Raymond Factory
Bypass Road Gundapura
Guribidanuru - 561208
Chikkaballapura District.

Following building constructed for **Pinakini Educational Trust,** Behind Raymond Factory, Bypass road Gundapura, Guribidanuru, and Chikkaballapura District. Were inspected for identification distress in the existing structure and evaluation of structural stability and safety.

Sl.No.	Name of the Building	Year of Construction
1	**Pinakini Educational Trust**	2010

In the above mentioned building RCC frame structure and Non load bearing Brick masonry walls.

The buildings are well maintained and there are Minor hair cracks in the slabs and beams and no leakage is observed anywhere in the buildings. All these buildings are checked for structural design taking in to consideration, their usage and all of them are structurally stable and safe and satisfy the codal requirements.

It is certified that the existing building (area of key plan) are structurally sound, stable and safe and satisfy all the requirements of Indian codes of practice. This building can be used for whatever purpose they have been designed. In overall the building is fit for human habitat.

Therefore as per the requirements the building is stable for the construction of another floor.

TSB CONSTRUCTIONS AND DEVELOPERS 9916790251 9148822750 GOURIBIDANUR

MANAGING DIRECTOR

GAURIBIDANUR-561208

Website.: https://tsbconstructions.com/
Email: tsbconstructions21@gmail.com
Ph No.:9916790251 / 9148822750

TSB CONSTRUCTIONS AND DEVELOPERS

1.General

Condition survey is conducted on the SCHOOL building G+4 located at Behind Raymond Factory Bypass Road Gundapura Gowribidanuru - 561208 Chickkaballapura District belongs to **PINAKINI EDUCATIONAL TRUST.** While it is referred in connection with survey of concrete and embedded reinforcement that showing degree of distresses in the structure. The identification of distresses is carried out by Conducting Visual inspections, Non-destructive tests on structural members.

1.1Objective

The objective of Condition survey of a building structure is

- To identify causes of distress and their sources.
- To assess the residual strength of the structure and its rehabilitee.
- To priorities the distressed elements according to seriousness for repairs.

1.2Stages

The four stages of survey carried out on the defected building structure

a. Preliminary inspection,
   - Establishing aims and information required
   - Documentation survey
   - Preliminary site visit

b. Planning,
   - Site inspection Rules
   - Field specifications

c. Visual inspection,
   - Visual inspections

d. Field testing,
   - Non-destructive tests
   - Conclusion
   - Action plan

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A.Preliminary inspection

The primary inspection is to assess and collect the following information for thoughtful planning before a conditional survey is physical undertaken by us from residents,

The collected information's are:

- Type of building : School Building
- Construction details including architectural plan and structural details of building: Not available
- Exposure condition of structure: moderate
- Record of structural changes made if any: No
- Photographs of distressed portions of structure: Enclosed

B.Planning Stage

The classes of damage and repairs are classified as class 0 to class 4

Class of damage	classification	Type observations
Class 0	cosmetic	Only final finishes
Class 1	superficial	structural cracks
Class 2	patch repair	Minor structural cracks
Class 3	principal repair	Spalling of cover concrete
Class 4	Major repair	Necessitating of replacement structural members

C.Visual inspection

Visual examination of a structure is the quantitate method of evaluation of structural soundness and identifying the typical distress symptoms together with the associate problems are mentioned below in table

Observed order	Observations made	Identification
Class a	Wet/ water stagnating area with RCC elements	**Not Identified**
Class b	Thin exposed non-structural RCC elements	**Not Identified**

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Class c	Wet areas with RCC elements	**Not Identified**
Class d	Structural members exposed to rain and sun from all sides if any weathering effects	**Not Identified**
Class e	Leakage or seepage	**Not Identified**

Class f	Type of cracks	**Not Identified**
Class g	Corrosion of reinforcement	**Not Identified**

D.Field tests

D.1Design philosophy

Laboratory tests are carried out to check the present condition of identified structural elements in basement floor.

Field tests are carried out on all structural members in existing distressed building by Non-destructive testing method to check the Insitu concrete strength, structural integrity / soundness assessment, and locating and identifying reinforcement adopted in existing members. The testing methods and results are shown below for different members with different tests viz:- Rebound hammer test and Ultra sonic pulse velocity test.

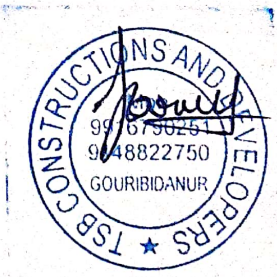

TABLE-1 REBOUND HAMMER TEST

The School Building consists of G+4 Floor
Members Used: Reinforced concrete Roof slab, Beam, Column
Technical Reference: IS 516(Part 5/Sec1)
Date of Testing: 08-05-2024

Sl, No.	Test Location Details	Direction of test	Average RNumber	Quality of concert
1	**GROUND FLOOR-Store Room area and Corridor area**			
	Column	H+90	42	Very good
	Beam	H+90	42	Good
	Roof Slab	V+90	48	Very good
2	**FIRST FLOOR-Class Room and Corridor area**			
	Column	H+90	43	Very good
	Beam	H+90	42	Very good
	Roof Slab	V+90	42	Good
3	**SECOND FLOOR Class Room and Corridor area**			
	Column	H+90	42	Very good
	Beam	H+90	39	Good
	Roof Slab	V+90	43	Very good
4	**THIRD FLOOR Class Room and Corridor area**			
	Column	H+90	43	Very good
	Beam	H+90	42	Good
	Roof Slab	V+90	43	Very good

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Quality of Concrete from Rebound Values Comparative Hardness

Average Rebound Number	Quality of Concrete
>40	Very good
30-40	Good
30-0	Fair
20-0	poor

Note: As per IS: 516(Part5/Sec4):2020, the estimation of strength of concrete by rebound hammer method cannot be held to be very accurate and probable accuracy of prediction of the concrete strength in a structure can be up to (+ or -) 25 percent depending upon correlation curve and methodology adopted for establishing correlation between rebound index and likely compressive strength.

TABLE 2:

ULTRASONIC PULSE VELOCITY TEST

The School Building consists of G+4 Floor

Members Used: Reinforced concrete Roof slab, and Beams

Technical Reference: IS 516(Part 5/Sec1)

Date of Testing: 08-05-2024

Sl, No.	Test Location Details	Average Pulse Velocity (Km/sec)	Concrete Quality Grading
1	**GROUND FLOOR-Store Room area and Corridor area**		
	Column	4.6	Very Good
	Beam	3.9	Good
	Roof Slab	3.8	Good
2	**FIRST FLOOR Class Room and Corridor area**		
	Column	4.7	Very Good
	Beam	3.9	Good
	Roof Slab	4.2	Good
3	**SECOND FLOOR-Class Room and Corridor area**		
	Column	4.6	Good
	Beam	4.1	Good
	Roof Slab	4.7	Good
4	**THIRD FLOOR Class Room and Corridor area**		
	Column	4.6	
	Beam	4.2	
	Roof Slab	4.6	

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Quality of Concrete from Ultra Pulse Velocity Test

Sl no	Pulse velocity	Concrete quality
1	Below 3.5 km/sec	Very Poor/Doubtful
2	3.5 – 4.5 km/sec	Good
3	>4.5 km/sec	Very good

Note: In case of "DOUBTFUL" Quality it may be Necessary to carry out further test

Conclusion

The following points were observed after inspecting through Non Destructive testing methods and compared the results of actual structural design detailing.

- From the results of the **Rebound hammer Test** the strength of the Reinforced Concrete Roof Slab ,Column and Beam is found to be in the range of **25 N/mm^2 to 40/mm^2** as per Table-3 of Is516(Part5/Sec1)2018.
- From the result of **Ultrasonic Pulse Velocity Test** ,It is Inferred that the quality of concrete in most of the tested region of Reinforced Concrete, Column, Beams and Roof slab comes under the category of **"Very Good /Good"** as per Table-2 of Is516(Part5/Sec4)2020
- Quality of concrete is satisfying the required strength and the details are presented in the report.
- The buildings are well maintained and there are no cracks in the Column, slabs, and beams.
- As per the detailed investigations carried out at the site, it has been concluded that the structural elements are satisfying the strength requirements with respect to steel and concrete hence in all over the building is fit for human habitat.

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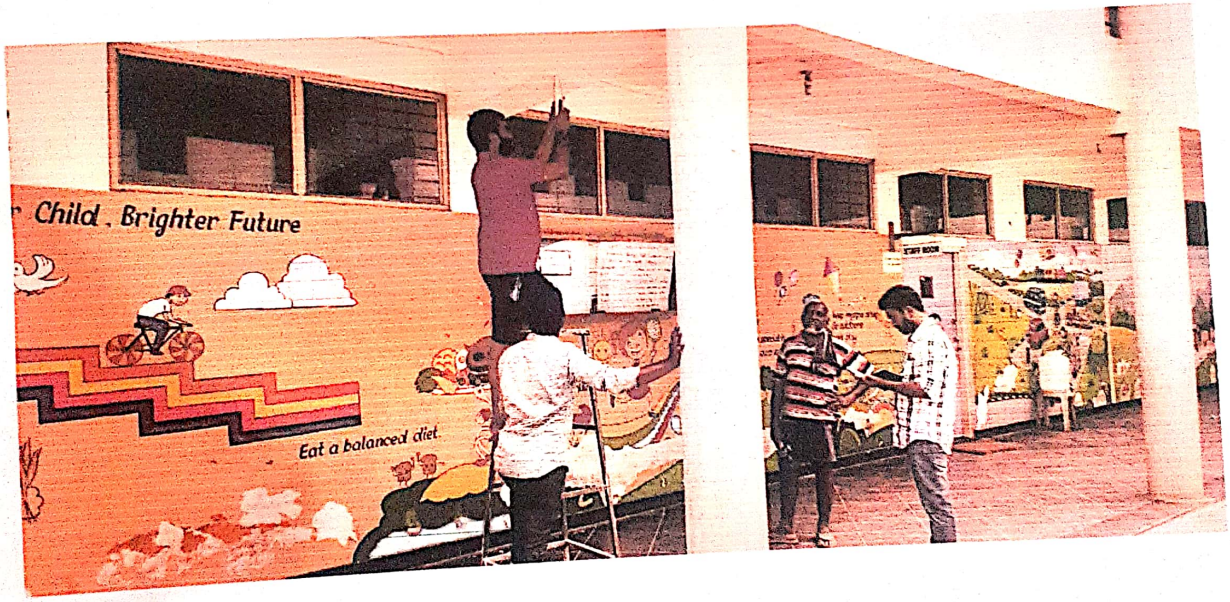
OBSERVATIONS : NDT TEST FOR COLUMN

REMARKS : WITH GUIDANCE OF PWD ENGINNER



OBSERVATIONS : NDT TEST FOR BEAM

REMARKS : WITH GUIDANCE OF PWD ENGINNER

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OBSERVATIONS : NDT TEST FOR PILLAR

REMARKS : UNDER THE GUIDANCE OF PWD ENGINEER

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