Reg. Structural Engineer Gr-I: 126/KPA/RSE/2018-19, Reg. Geotechnical Engineer: TJR/RGTE/2019/014 Registered Structural Engineer Grade-I in Karaikal Planning Authority, Competent person to release structural soundness certificate for public buildings.

Certificate of Structural Soundness for the School Statement Accompanying From - A

1.Door number of building

2.Location (Street, Name, Ward Number, Name of place, i.e.Corporation/Municipality/Panchayat/ Panchayat Union/Township/Contonment, etc.,)

3. Year of construction

4. Approximate cost of construction as per current rates

5. Purpose for which the building is being used or proposed to be used

6. Purpose for which building has now been used

7. Details of construction of the building (particular of the foundation soil, specification of the various parts under)

a) Foundation

b) Basement

c) Superstructure

d) Floor Finishing

e) Roof

f) Area of the Building (Main Building (G+3))

: M/s. SMV School

: Madukarai Road, Madagadipet, Puducherry -605107.

: Newly Constructed

: Rs.22,00,00,000/- (Rupees Twenty Two Crores Only)

: Class room, Administrative office, Principal room, Staff room, Laboratories, Multipurpose hall and Toilets.

: -do-

: RCC Footings

: Brick Masonry with Cement Mortor

: ACC Blocks and Monolithic Wall

Vitrified Tiles and Granite Finishing

RCC Roof

Sq.Ft. Basement- Amphitheater & Pump Room - 3,035

- 41,474 Ground Floor

- 36,810 First Floor

- 28,900 Second Floor - 29,443 Third Floor

- 28,016 Terrace Floor

Reg. Geo-Technical Engineer (DTCP): TJR/RGTE/2019/014 Reg. Structural Engineer GR-II (DTCP): TJR/SE-II/2012/017 Reg. Structural Engineer GR-I (KPA): 126/KPA/RSE/2018-19 No.286, Bharathiyar Road, Karaikal -609602 Branch: Nagapattinam, Chidambaram & Puducherry. Mobile: 9443859977

Reg. Structural Engineer Gr-I: 126/KPA/RSE/2018-19, Reg. Geotechnical Engineer: TJR/RGTE/2019/014
Registered Structural Engineer Grade-I in Karaikal Planning Authority, Competent person to release
structural soundness certificate for public buildings.

g) Area of the Building (Kindergarten (G+2))

 Sq.Ft.

 Pump Room & UG Sump
 - 1,875

 Ground Floor
 - 7,546

 First Floor
 - 6,778

 Second Floor
 - 6,532

 Terrace Floor
 - 6,532

8. Period for which licence is required

: From 13.07.2023 to 12.07.2026

9. Number for persons to be accommodated

: 2000 Nos. (capacity)

"Certified that no addition or alteration has been made to the newly constructed ("Kindergarten Block and Main Building Block" for M/s. SMV School at Madukarai Road, Madagadipet, Puducherry) building for which this application has been made. I undertake to obtain a fresh licence in case any addition or alteration is made to the newly constructed building. I also undertake to obtain a fresh licence if the purpose for which the licence was granted for the use of the building or a portion of the building originally is changed or altered subsequently."

Date: 13.07.2023

Signature of the Registered Engineer

ET. R. PREMKUMAR, B.E. (Civ. & Stru), M.E. (Geo-Tech), M.Sc. (REV), M.LE, F.I.V, NT Arb.

Reg. Geo-Technical Engineer (DTCP): TJR/RGTE/2019/014
Reg. Structural Engineer GR-II (DTCP): TJR/SE-II/2012/017
Reg. Structural Engineer GR-II (NPA): 126/KPA/RSE/2018-19
No.286, Bharathiyar Road, Karaikal -609602
Branch: Nagapattinam, Chidambaram & Puducherry.
Mobile: 9443859977

Date:

Signature of the owner of the building

×

CORRESPONDENT
SMV SCHOOL
Madukarai Road, Madagadipet,
Puducherry-805 107.

Reg. Structural Engineer Gr-I: 126/KPA/RSE/2018-19, Reg. Geotechnical Engineer: TJR/RGTE/2019/014 Registered Structural Engineer Grade-I in Karaikal Planning Authority, Competent person to release structural soundness certificate for public buildings.

From - B

(Form of certification of structural soundness under sub-section (4) of section 4 of the Tamil Nadu Public Building (Licensing) Act. 1965 (Tamil Nadu Act. 13 of 1965) referred to in rule 4 of the Tamil Nadu Public Building (licensing) Rules 1966.

I certify that I have inspected the building of "M/s. SMV School" at Madukarai Road, Madagadipet, Puducherry. Mentioned in the statement and furnish below its salient technical features and the same is based on the data measurements and specifications found in the site of the subject school physically.

I) Foundation:

1.Depth below ground level : 2.0 m

2. Nature of soil met with at foundation level : Brown Silty Sand

3.Pressure at foundation : 3.0 T/m²

4. Probable safe bearing capacity of the soil met : 13.50 T/m²

with at foundation

II) Superstructure:

1.Maximum stress in the most critical section of masonry and concrete

2. Nature of masonry and concrete and its

permissible stress

: 1600 ksc

: Brick masonry with cement mortor – 3000 ksc

and concrete - 5000 ksc

The structural soundness of the building has been verified by me with reference to ISI loading standards 878 (Latest version) and other relevant Indian Standards Code of practice and I declare that the building is structurally sound to be used as a public building for the purpose noted in the statement. A licence may be granted for the period from 13.07.2023 to 12.07.2026.

Date: 13.07.2023

B.E (Civ & Stru), M.E (Geo-Tech), M.Sc (REV), M.I.E, F.I.V. HT Arb. Reg. Geo-Technical Engineer (DTCP): TJR/RGTE/2019/014 Reg. Structural Engineer GR-II (DTCP): TJR/SE-II/2012/017 Reg. Structural Engineer GR-I (KPA): 126/KPA/RSE/2018-19 No.286, Bharathiyar Road, Karaikal -609602 Branch: Nagapattinam, Chidambaram & Puducherry. Mobile: 9443859977

Reg. Structural Engineer Gr-I: 126/KPA/RSE/2018-19, Reg. Geotechnical Engineer: TJR/RGTE/2019/014
Registered Structural Engineer Grade-I in Karaikal Planning Authority, Competent person to release structural soundness certificate for public buildings.

From – C Statement to Accompany the Certificate of Structural Soundness

- 1.Location of the building, door number, street and name of the place
- 2.Age of the building
- 3. Number of storeys
- 4.Short description of structures steel / RCC framed or load bearing masonry
- 5. Purpose for which the building is certified for use
- 6.The period for which the building will be structurally sound
- 7. Number of persons to be accommodated
- 8.Remarks

Date: 13.07.2023

- M/s. SMV School,
 Madukarai Road, Madagadipet,
 Puducherry.
- : Newly Constructed
- Kindergarten Three Storeyed
 Main Building Four Storeyed
- : RCC framed structure with Monolithic and Shear Wall
- : Class room, Administrative office, Principal room, Staff room, Laboratories, Multipurpose hall and Toilets
- : Three years 13.07.2023 to 12.07.2026
- : 2000 Nos. (capacity)
- : Building is Structural Sound, Strong and Safe and Fit for habitation

Er. R. PREMKUMAR.

B.E (Civ & Stru), M.E (Geo-Tech), M.Sc (REV), M.I.E, E.I.V, ITT Arb, Reg. Geo-Technical Engineer (DTCP): TJR/RGTE/2019/014
Reg. Structural Engineer GR-II (DTCP): TJR/SE-II/2012/017
Reg. Structural Engineer GR-I (KPA): 126/KPA/RSE/2018-19
No.286, Bharathiyar Road, Karaikal -609602
Branch: Nagapattinam, Chidambaram & Puducherry.
Mobile: 9443859977

Reg. Structural Engineer Gr-I: 126/KPA/RSE/2018-19, Reg. Geotechnical Engineer: TJR/RGTE/2019/014
Registered Structural Engineer Grade-I in Karaikal Planning Authority, Competent person to release
structural soundness certificate for public buildings.

From - E

(Form of report to be made to the competent authority by inspecting authorities or officers appointed under other Act Under Section 28 of the Madras Public Building Licensing) Act. 1965 (Madras Act 13 of 1985) referred to in rule 7 of the Madras Public Building Licensing Rules. 1966.

 Name and designation of inspecting authority or officer appointed or having jurisdiction under any other Act or Law : Er. R. Premkumar

B.E (Civ & Stru)., M.E (Geo-Tech)., M.Sc (Rev)., MIE, FIV, IIT Arb, (Ph.D),

Reg. Structural Engineer Gr-I: 126/KPA/RSE/2018-19.

No.286, Bharathiyar Road, Karaikal - 609 602.

Branch: Nagapattinam, Chidambaram & Puducherry.

2.Location of the building inspected D.No. Street No. Name of place i.e. Municipal corporation / Municipality / Panchayat or Panchayat Union / Township / Contonment.

3.Date of Inspection

4. Purpose for which the building is used

5. Nature of defects noticed

6. Suggestion of rectifying defects

7.If in a dangerous condition immediate action recommended to be taken

: M/s. SMV School, Madukarai Road, Madagadipet, Puducherry -605107.

: 13.07.2023

: Class room, Administrative office, Principal room, Staff room, Laboratories, Multipurpose hall and Toilets

: Nil

: Nil

: Nil

Date: 13.07.2023

Er. R. PREMKUMAR,

B.E (Civ & Stru), M.E (Geo-Tech), M.Sc (REV), M.I.E, F.I.V, IIT Arb, Reg. Geo-Technical Engineer (DTCP): TJR/RGTE/2019/014
Reg. Structural Engineer GR-II (DTCP): TJR/SE-II/2012/017
Reg. Structural Engineer GR-I (KPA): 126/KPA/RSE/2018-19
No.286, Bharathiyar Road, Karaikal -609602
Branch: Nagapattinam, Chidambaram & Puducherry.
Mobile: 9443859977

FORM NO 8 CERTIFICATE OF UNDERTAKING FOR MULTISTOREYED/ SPECIAL/ GROUP DEVELOPMENT BUILDINGS SAFETY REQUIREMENT

To The Commissioner, Puducherry Municipality, Puducherry – 605001.

REF: NEWLY CONSTRUCTED "KINDERGARTEN BLOCK AND MAIN BUILDING BLOCK" FOR M/s. SMV SCHOOL AT MADUKARAI ROAD, MADAGADIPET, PUDUCHERRY -605107.

- (1) Certified that the building plans submitted for approval will satisfy the safety requirements as stipulated under Building Bye-law and Zoning Regulations and the information given therein is factually correct to the best of our knowledge and understanding.
- (2) It is also certified that the structural design including safety from natural hazards based on soil conditions shall be duly incorporated in the design of the building and these provisions shall be adhered to during the construction.

Signature of Owner with Date: Name in Block Letters Address

Leon

CORRESPONDENT

* SMV SCROOL

Madukarai Read, Madagadipet,
Puducherry-605 107.

Signature of Developer with Date Name in Block Letters: Address: Registered Structural Engineer on Record with Date

Er. R. PREMKUMAR,

B.E (Civ & Stru), M.E (Geo-Tech), M.Sc (REV), M.I.E, F.I.V, HT Arb, Reg. Geo-Technical Engineer (DTCP): TIR/RGTE/2019/014
Reg. Structural Engineer GR-II (DTCP): TIR/SE-II/2012/017
Reg. Structural Engineer GR-I (KPA): 126/KPA/RSE/2018-19
No.286, Bharathiyar Road, Karaikal -609602
Branch: Nagapattinam, Chidambaram & Puducherry.
Mobile: 9443859977

Signature of the Architect/ Engineer on Record with date.

Name in Block Letters:

Address:

FORM NO: 10

CERTIFICATE OF UNDERTAKING OF REGISTERED STRUCTURAL ENGINEER

To

The Commissioner, Puducherry Municipality, Puducherry - 605001.

REF: NEWLY CONSTRUCTED "KINDERGARTEN BLOCK AND MAIN BUILDING BLOCK" FOR M/s. SMV SCHOOL AT MADUKARAI ROAD, MADAGADIPET, PUDUCHERRY -605107.

Owner:

M/s. SMV SCHOOL,

Madukarai Road, Madagadipet,

Puducherry -605107.

Tel No .:

I am a Registered Structural Engineer (R.S.E.). This is to certify that I have been appointed as Structural Engineer to prepare the Structural design basis report, detailed structural design and detailed Structural drawings for above mentioned project. I am fully conversant of my duties and responsibility under the building Bye - laws and Zoning Regulations and assure that I shall fulfill them in all respects.

I have prepared and signed a structural design basis report (S.D.B.R.)

I undertake to carry out a detailed structural design and prepare detailed structural Drawings of proposed building as per the latest Indian Standard Specifications, and as indicated in the Structural Design basis report.

I undertake to supply the Owner and the supervisor the detailed Structural Drawings. If my services are terminated, I undertake to intimate the Authority in writing.

Er. R. PREMKUMAR.

B.E (Civ & Stru), M.E (Geo-Tech), M.Sc (REV), M.I.E, F.I.V, IIT Arb, Reg. Geo-Technical Engineer (DTCP): TJR/RGTE/2019/014 Reg. Structural Engineer GR-II (DTCP): TJR/SE-II/2012/017 Reg. Structural Engineer GR-I (KPA): 126/KPA/RSE/2018-19 No.286, Bharathiyar Road, Karaikal -609602 Branch: Nagapattinam, Chidambaram & Puducherry.

Mobile: 9443859977

Form No. - 12

STRUCTURAL DESIGN BASIS REPORT

Part 1	General D	ata	
S.No.	Description	Information	Notes
(1)	Address of the building Name of the Building Plot Number Sub Plot Number Village a) Name b) R.S./T.S. Number Locality/Township District	REF:NEWLY CONSTRUCTED "KINDERGARTEN BLOCK AND MAIN BUILDING BLOCK" FOR M/s. SMV SCHOOL AT MADUKARAI ROAD, MADAGADIPET, PUDUCHERRY -605107.	
(2)	Name of the owner	M/s. SMV SCHOOL	
(3)	Name of the Builder		
(4)	Name of Registered Architect/Engineer		
(5)	Name of Registered Structural Engineer	Er. R. Premkumar	
(6)	Use of the building	Institutional Building (Kindergarten and Main Building Block)	į.
(7)	Number of storey's above ground level (including storey's to be added later, if any)	G+2 & G+3	
(9)	 Type of Structure Load bearing walls R.C.C. frame R.C.C. frame & shear walls Steel frame 	RCC Framed Structure with some monolithic and AAC block work	
(10)	Dead loads (unit weight adopted) Earth Water Brick masonry Plain Cement Concrete Reinforced Cement Concrete Floor finish Other fill materials Piazza floor fill and landscape	1600 Kg/m ³ 1000 Kg/m ³ 1920 Kg/m ³ 2400 Kg/m ³ 2500 Kg/m ³ 125Kg/m ³	IS:875 Part 1
(11)	 Imposed (Live) loads Piazza floor accessible to Fire Tender Piazza floor not accessible to Fire Tender Floor load Roof load 	- - 500 Kg/m ² 200Kg/m ²	IS: 875 Part 2
(12)	Cyclone/Wind	50m/s 150Kg/m²	IS: 875
(13)	Seismic Zone	Zone II	IS: 875(2002)

(14)	Importance Factor	1.5	IS: 1893 Table 8
(15)	Seismic Zone Factor (Z)	0.10	IS: 1893 Table 2
(16)	Response reduction factor	3(Ordinary moment Resistant Frame)	IS: 1893 Table 7
(17)	Fundamental natural period – approximate	0.245 sec	IS: 1893 Cl.7.6
(18)	Design horizontal acceleration spectrum value (Ah)	0.0147	IS: 1893 Cl.6.4.2
(19)	Expansion / Separation Joints	Nil	

Part 2	Load bearing masonry buildings	Not applicable
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Er. R. PREMKUMAR,

B.E (Civ & Stru), M.E (Geo-Tech), M.Sc (REV), M.I.E, F.I.V, HT Arb,
Reg. Geo-Technical Engineer (DTCP): TJR/RGTE/2019/014
Reg. Structural Engineer GR-II (DTCP): TJR/SE-II/2012/017
Reg. Structural Engineer GR-I (KPA): 126/KPA/RSE/2018-19
No.286, Bharathiyar Road, Karaikal -609602
Branch: Nagapattinam, Chidambaram & Puducherry.
Mobile: 9443859977

FORM No. – 12 (Continued)

Part 3	Reinforced concrete frame	d buildings	
S.No.	Description	Information	Notes
(1)	Type of Structure Regular frames Regular frames with shear wall Irregular frames	Regular Frame	IS: 1893 Cl.7.1
	Irregular frames with shear wallSoft storey		
(2)	Number of basement	Nil	
(3)	Number of floors including ground floor	4	
(4)	Beam and Slabs Waffles Ribbed Floor Flat slab with drop	Beam and Slab Flat slab with drop	
/c\	Flat plats without drops		
(5)	Foundations Depth below ground level Type Independent Interconnected Raft Piles	Soil particulars attached vide GT Report Project No: Ref: G(C)9605A	
(6)	System of interconnecting foundations		
(0)	Plinth beams Foundation beams		
(7)	Grades of concrete used in different parts of building	M25 & M30	
(8)	Method of analysis used	P delta analysis	
(9)	Computer software used	Staad.Pro V8i-Software	
(10)	Base shear	Stadan (S 15) Sentinars	IS: 1893 Cl.7.5.3
	a. Based on approximate fundamental periodb. Based on dynamic analysisc. Ratio of a/b	36 KN Based on Dynamic Analysis	
(11)	Distribution of seismic forces along the height of the building	Included in the 3D Analysis	IS: 1893 Cl.7.7
(12)	The column of soft ground storey specially designed	N/A	IS: 1893 Cl.7.10
(13)	Clear minimum cover provided in Isolated Column Beams Slabs Walls	60mm 50mm 30mm 20mm	

(14) Duc	tile detailing of RC frame		
	 Type of reinforcement used 	Fe 500	IS: 456 Cl.5.6
	 Minimum dimension of beams 	230x380	IS:13920 Cl.6.1
157	 Minimum dimension of columns 	230x230	IS:13920 Cl.7.1.2
	 Minimum percentage of reinforcement of 	0.25%	IS: 456
	beams at any cross section		Cl.26.5.1(a)
		CO. 1 2000	IS:13920 Cl.6.2.1
	 Maximum percentage of reinforcement at 	2.0%	IS:456
	any section of beam		Cl.26.5.1.1(b)
			IS:13920
	Spacing of transverse reinforcement of 2-d	100mm	Cl.26.5.1.1(b)
	length of beams near the ends		IS:13920 Cl.6.2.2
	Ratio of capacity of beams in shear to		IS:13920 Cl.6.3.5
	capacity of beams in flexure	1.25	
	capacity of beams in flexure		
	Maximum percentage of reinforcement in		
	column	3.25%	IS:456 Cl.26.5.3.1
	 Confining stirrups near ends of columns and 		
	in beam column joints		
	a) Diameter	8mm	
	b) Spacing	100mm	IS:13920Cl.7.4
	 Ratio of shear capacity of columns to 	0.9	
	maximum seismic shear in the storey		
			n .

Part 4	Buildings in Structural Steel	Not applicable
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Er. R. PREMKUMAR,

B.E (Civ & Stru), M.E (Geo-Tech), M.Sc (REV), M.LE, F.I.V, NT Arb,
Reg. Geo-Technical Engineer (DTCP): TJR/RGTE/2019/014
Reg. Structural Engineer GR-II (DTCP): TJR/SE-II/2012/017
Reg. Structural Engineer GR-I (KPA): 126/KPA/RSE/2018-19
No.286, Bharathiyar Road, Karaikal -609602
Branch: Nagapattinam, Chidambaram & Puducherry.
Mobile: 9443859977

CERTIFICATE OF STRUCTURAL SOUNDNESS

This is to certify that the REF: NEWLY CONSTRUCTED "KINDERGARTEN BLOCK AND MAIN BUILDING BLOCK" FOR M/s. SMV SCHOOL AT MADUKARAI ROAD, MADAGADIPET, PUDUCHERRY -605107 is designed by me and the salient technical details are furnished below.

1. Type of Structures

R.C.C framed structure with monolithic and AAC block walls.

2. Safe bearing capacity

of soil at 2.0m depth

below NGL

13.5T/m²

3. Maximum load at critical

Column section.

•

4. Suggested depth of

Foundation.

2.0m

II SUPER STRUCTURE:

(I) Type of construction

R.C.C Framed Structure with Monolithic and Shear Wall

(II) Class of Building

Type – I class construction

(III) Usage

Institutional Building

(IV) Concrete Grade

M25 & M30

(V) Steel Grade

Fe 500

The structural soundness of the building has been verified by me with ref. to IS875 and IS 456-2000 and I have taken into consideration of the earth quake resistant design as per IS 1893-2000 and I declare that the building would be structurally sound for the institutional purpose. The design details and drawings are enclosed in the annexure.

ENGINEER SIGNATORE

Er. R. PREMKUMAR.

B.E (Civ & Stru), M.E (Geo-Tech), M.Sc (REV), M.I.E, F.I.Y, IIT Arb, Reg. Geo-Technical Engineer (DTCP): TIR/RGTE/2019/014 Reg. Structural Engineer GR-II (DTCP): TIR/SE-II/2012/017 Reg. Structural Engineer GR-I (KPA): 126/KPA/RSE/2018-19 No.286, Bharathiyar Road, Karaikal -609602 Branch: Nagapattinam, Chidambaram & Puducherry. Mobile: 9443859977