



SCHOOL SANITATION IN SMALL TOWNS

Assessment and Investment Requirement in Sinnar

Objective of the exercise

Key Focus : Improve School Sanitation Facilities in Wai and exploring financing options through CSR

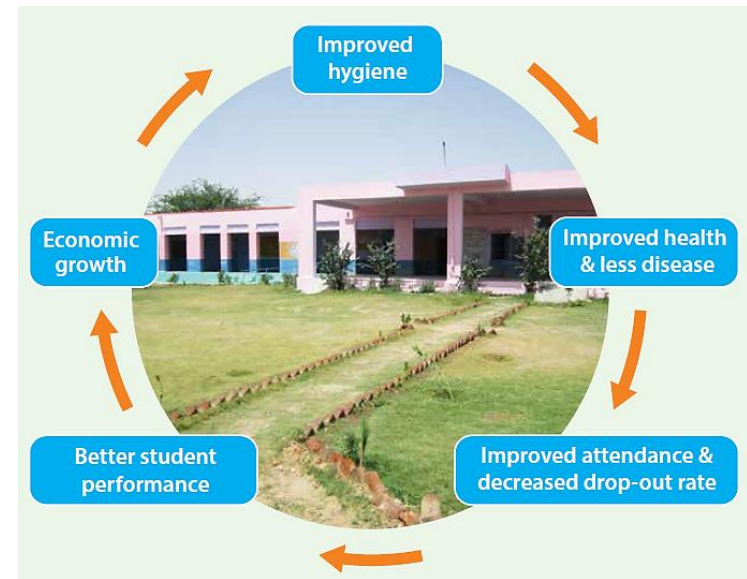
- **Assessment of Sanitation Service provision in Public/ Private Schools**
- **Infrastructure Gap Assessment of Sanitation Facilities in schools**
- **Exploring new options for Operations & Maintenance and Monitoring of school Toilets**
- **Exploring Funding mechanisms for construction of new toilets and refurbishment of the existing sanitation facilities**

National Mission- **Swach Bharat Swach Vidyalay**

- National campaign to ensure that every school in India has a set of functioning and well maintained water, sanitation and hygiene facilities
- Supported by all related Ministries and other flagship programmes like Sarva Shiksha Abhiyan and Nirmal Gram Puraskar

- Highlights importance of various essential elements

- Drinking water
- Sanitation
- Daily hand washing
- Operation and maintenance
- Behavior change activities
- Enhanced capacities



- Highlights O&M of school Toilets- daily, weekly, fortnightly, monthly, seasonal and yearly maintenance
- Periodic visits to be planned for the districts by designated supervisor

Public & Private Schools- Existing Status

6 Public Schools

No. of Girls- **1570**

Toilets- **14**

Urinals- **27**

No. of Boys- **765**

Toilets- **6**

Urinals- **25**

Teaching Staff

69

Non- Teaching
Staff

11

Total Number of Students – **2335**

15 Private Schools

No. of Girls- **4936**

Toilets- **23**

Urinals- **100**

No. of Boys- **6768**

Toilets- **18**

Urinals- **121**

Teaching Staff

317

Non- Teaching
Staff

83

Total Number of Students – **11,704**

Summary of Proposals

Total - INR **1.2 Crore** for New Construction

INR **6 Lakhs** for Annual O&M of School Toilets

	Public Schools	Private Schools
New Construction	INR 21 Lakhs (43 Toilets + 65 Urinals)	INR 98 Lakhs (188 Toilets + 348 Urinals)
Estimated Annual O&M Contract Value	INR 1.3 Lakhs	INR 4.6 Lakhs

Exploring New models of Operations & Maintenance for School Sanitation

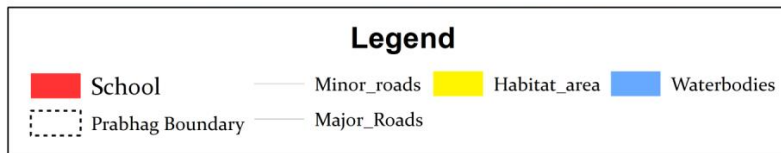
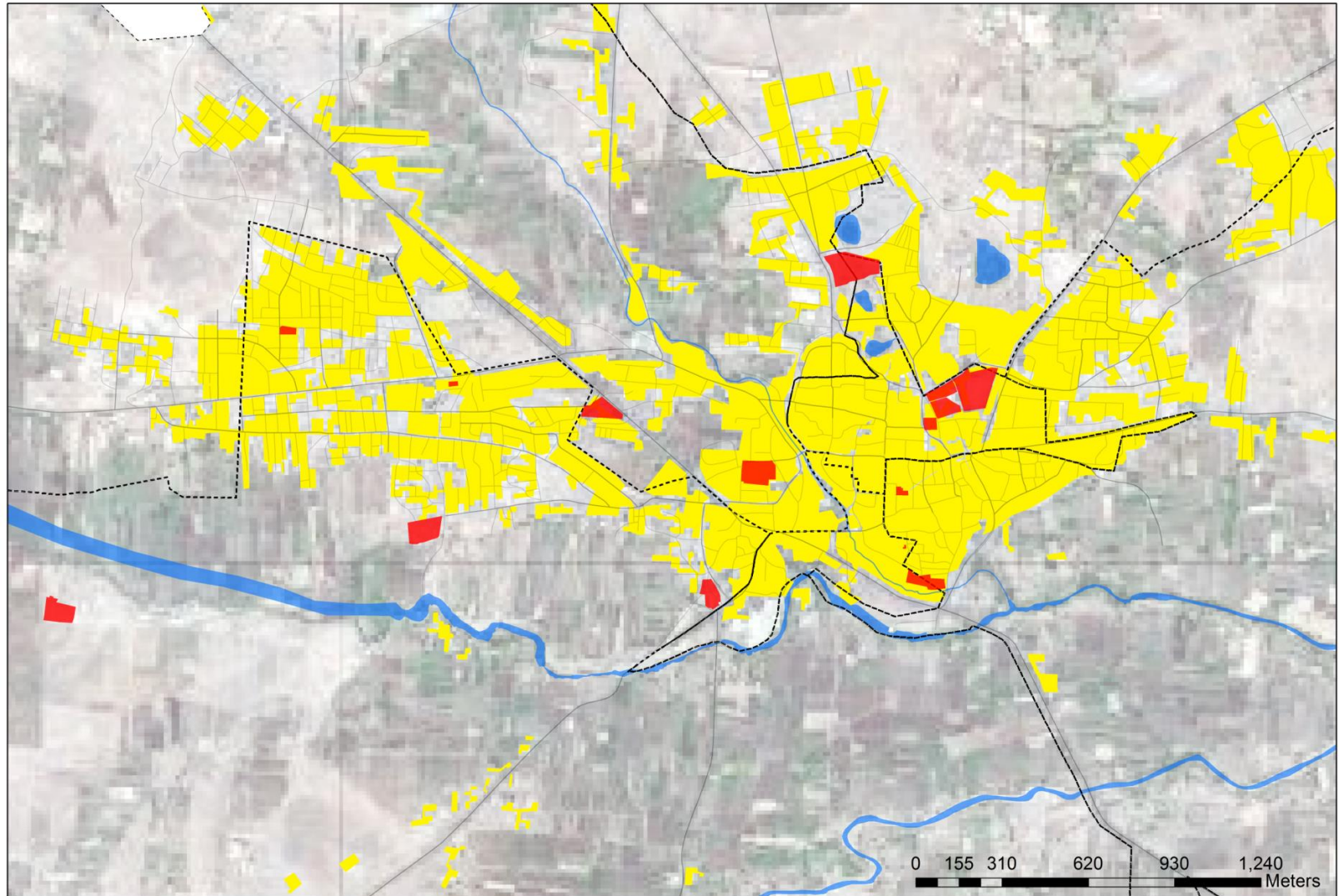
Assessment Parameters

- Existing number of Toilets and Urinals
- Condition of Toilets and Urinals
- Cleaning Frequency
- Maintenance Responsibility
- Refurbishment required
 - Wash Taps
 - Screen Doors for Girl's Urinals
 - Ventilation
 - Self Cleaning Units in Urinals
 - Wash Basins
- Infrastructural gaps* and costing



* - All Demand Assessment done on the basis of National Building Code

Locations of Schools in Sinnar



PERFORMANCE ASSESSMENT SYSTEMS

School Sanitation Assessment-Sinnar



Public & Private Schools- Status

S N.	Name of School	Classrooms	Students		Staff	
			Girls	Boys	Teaching	Non-Teaching
Government Schools						
1	Sanjeevani Prathmik & Bal Vidyamandir	8+4 (combined)	369	493	20	4
2	Ma, Chandak Kanya Vidyamandir	6+11 (combined)	841	-	25	7
3	Zilla Parishad School No. 1	8	107	101	6	-
4	Zilla Parishad School No. 3		120	103	6	-
5	Zilla Parishad School (Urdu)	7	101	45	4	-
6	Zilla Parishad School- zapawadi	8	128	131	8	-
Private Schools						
1	Matoshree Sagunabai Prathamik Vidyamandir	6	251	284	12	-
2	Mahatma Jotiba Phule Vidyamandir	28	1028	1079	28	9
3	Savitribai Phule Prathamik Vidyamandir	8	206	210	9	-
4	Bhikusa High School	11	212	274	17	6
5	SMTPD Navjeevan Day School	19	515	887	41	9
6	Loknete ShankarRao Vaje Vidyamandir	56	1469	2016	76	13
7	Abhinav Bal Vikas Mandir	23	413	521	25	7
8	Seth. B. N. Sarda Vidyamandir	4	128	783	30	10
9	Adarsh English Medium School	16+8 (extra)	333	445	23	16
10	Kid's Academy	17	35	28	24	10
11	Silver Lotus English Medium School	8	80	115	10	-
12	Savitribai Pawar Prathamik Vidyamandir	17	132	158	8	-
13	Shri Mad Vidya Mandir	3	135	67	5	3
14	English Medium School	17	51	67	4	-
15	New English Medium School	4	15	15	5	-

Existing Status of Toilets & Urinals in Public Schools

S N.	Name of School	Toilets		Urinals	
		Girls	Boys	Girls	Boys
Government Schools					
1	Sanjeevani Prathmik & Bal Vidyamandir	3	0	10	15
2	Ma, Chandak Kanya Vidyamandir	3	-	6	-
3	Zilla Parishad School No. 1	2	2	1	3
4	Zilla Parishad School No. 3	2	0	1	0
5	Zilla Parishad School (Urdu)	2	2	0	0
6	Zilla Parishad School- zapawadi	2	2	9	7
Total		14	6	27	25

- Zilla Parishad School (Urdu) runs in the premise of a mosque and **students use the common facility.**
- No boy's toilet in 2 schools
- **No provision for CWSN toilets and proper ventilation**
- **Due to Irregular cleaning, the toilets are not maintained in good condition**

Existing Status of Toilets & Urinals in Private Schools

S N.	Name of School	Toilets		Urinals	
		Girls	Boys	Girls	Boys
Private Schools					
1	Matoshree Sagunabai Prathamik Vidyamandir	3	0	7	0
2	Mahatma Jotiba Phule Vidyamandir	4	3	10	10
3	Savitribai Phule Prathamik Vidyamandir				
4	Bhikusa High School	1	1	5	5
5	SMTDP Navjeevan Day School	3	3	11	11
6	Loknete ShankarRao Vaje Vidyamandir	2	2	42	65
7	Abhinav Bal Vikas Mandir				
8	Seth. B. N. Sarda Vidyamandir	0	3	0	10
9	Adarsh English Medium School	4	2	16	16
10	Kid's Academy	3	0	3	0
11	Silver Lotus English Medium School	2	3	2	0
12	Savitribai Pawar Prathamik Vidyamandir	1	1	4	4
13	Shri Mad Vidya Mandir				
14	English Medium School				
15	New English Medium School				
Total		23	18	100	121

- No separate toilets for girls and boys in 3 schools
- 4 schools share common facilities- 1 Girl's and 1 boy's toilet
- No provision for CWSN toilets

Condition of Toilets in Public Schools



Condition of Toilets in Private Schools



O&M of Public School Toilets

S N.	Name of School	Maintenance Responsibility	No. of Workers	Cleaning Frequency
Public Schools				
1	Sanjeevani Prathmik & Bal Vidyamandir	Nagar Palika	1	Once daily
2	Ma, Chandak Kanya Vidyamandir	Nagar Palika	1	Once daily
3	Zilla Parishad School No. 1	Call Nagar Palika sweeper as and when required	Not appointed any worker	-
4	Zilla Parishad School No. 3	Call Nagar Palika sweeper as and when required	Not appointed any worker	-
5	Zilla Parishad School (Urdu)*	School Authority	0	Once in 2 days
6	Zilla Parishad School- zapawadi	Call sweeper as and when required	Not appointed any worker	-

*Zilla Parishad School (Urdu) runs in the premise of a mosque and students use the common toilets. But the cleaning responsibility lies with the school authority. No person has been allotted for this purpose.

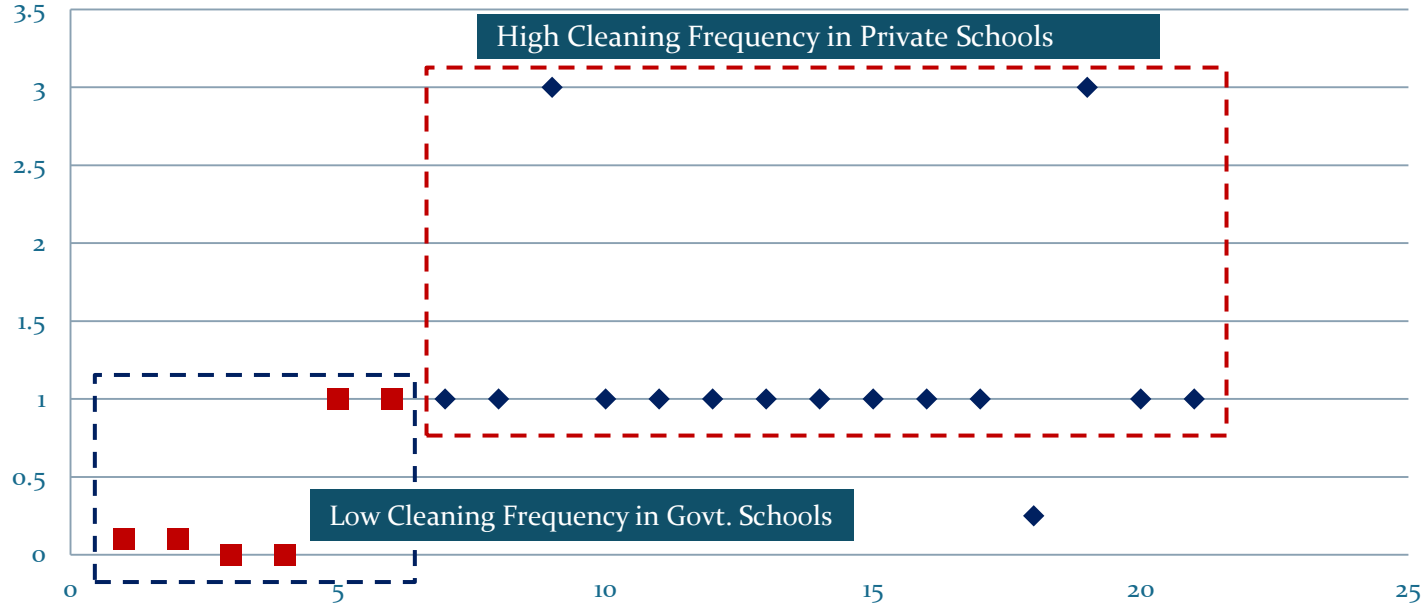
- Out of 6 schools, **3 schools have not appointed any workers** for cleaning and maintaining sanitary facilities at all
- Rest of the Public schools- **cleaners are appointed by Nagar Palika**
- **Schools have very low Cleaning Frequency**

O&M of Private School Toilets

S N.	Name of School	Maintenance Responsibility	No. of Workers	Cleaning Frequency
Private Schools				
1	Matoshree Sagunabai Prathamik Vidyamandir	School Admin	1	Once daily
2	Mahatma Jotiba Phule Vidyamandir	School Watchman	1	Once daily
3	Savitribai Phule Prathamik Vidyamandir	School Watchman	1	Once daily
4	Bhikusa High School	School Admin	1	Once two times a week
5	SMTPD Navjeevan Day School	School Admin	1	Thrice daily
6	Loknete ShankarRao Vaje Vidyamandir	School Admin	1	Once daily
7	Abhinav Bal Vikas Mandir	School Admin	1	Once daily
8	Seth. B. N. Sarada Vidyamandir	School Admin	1	Once daily
9	Adarsh English Medium School	School Admin	1	Once daily
10	Kid's Academy	School Admin	5	Thrice daily
11	Silver Lotus English Medium School	School Admin	1	Once daily
12	Savitribai Pawar Prathamik Vidyamandir	School Admin	1	Once daily
13	Shri Mad Vidya Mandir	School Admin	1	Once daily
14	English Medium School	School Admin	1	Once daily
15	New English Medium School	School Admin	1	Once daily

- All schools have appointed workers for cleaning and maintaining all sanitary facilities
- Schools have higher Cleaning Frequency as compared to Public Schools
- Kid's Academy has 5 workers as the school is running in 3 different premises

Cleaning Frequency of Toilets in Public & Private Schools



- Zilla Parishad School No. 1
- Z P School (Urdu)
- Sanjeevani Prathmik & Bal Vidyamandir
- ◆ Seth. B. N. Sarada Vidyamandir
- ◆ Kid's Academy
- ◆ Savitribai Pawar Prathmik Vidyamandir
- ◆ English Medium School
- ◆ Matoshree Sagunabai Prathamik Vidyamandir
- ◆ Savitribai Phule Prathamik Vidyamandir
- ◆ SMTPD Navjeevan Day School
- ◆ Abhinav Bal Vikas Mandir
- Zilla Parishad School No. 3
- Z P School- zapawadi
- Ma, Chandak Kanya Vidyamandir
- ◆ Adarsh English Medium School
- ◆ Silver Lotus English Medium School
- ◆ Shri Mad Vidya Mandir
- ◆ New English Medium School
- ◆ Mahatma Jotiba Phule Vidyamandir
- ◆ Bhikusa High School
- ◆ Loknete ShankarRao Vaje Vidyamandir

Cleaning Frequency is High in Private Schools while most of Public Schools have very low Cleaning Frequency

Infrastructure Gap

Existing

Girls Toilets Govt. - 14 Private- 23	Girls Urinals Govt. - 27 Private- 100	Boys Toilets Govt. - 6 Private- 18	Boys Urinals Govt. - 25 Private- 121
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None of the schools have constructed toilets as per universal design guidelines

Required

Girls Toilets Govt. - 32 Private- 109	Girls Urinals Govt. - 54 Private- 139	Boys Toilets Govt. - 11 Private- 79	Boys Urinals Govt. - 11 Private- 209
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Refurbishment of Existing Infrastructure

Wash Taps Govt. - 21 Private- 24	Screen Door Govt. - 66 Private- 23	Ventilation Govt. - 111 Private- 30	Self-cleaning Unit Govt. - 88 Private- 33	Wash Basins Govt. - 117 Private- 90
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Toilet & Urinal Requirement in Public Schools

S No	Name of School	Toilets		Urinals	
		Girls	Boys	Girls	Boys
Government Schools					
1	Sanjeevani Prathmik & Bal Vidyamandir	4	5	4	4
2	Ma, Chandak Kanya Vidyamandir	18	-	36	-
3	Zilla Parishad School No. 1	1	-	4	2
4	Zilla Parishad School No. 3	1	1	5	5
5	Zilla Parishad School (Urdu)	1	-	5	-
6	Zilla Parishad School- zapawadi	1	-	-	-
Total Requirement		26	6	54	11

- **Girls School Ma. Chandak Kanya Vidyamandir, presently have only 3 toilets but still requires 18 toilets and 36 urinals**
- **Only 1 girls toilet is required in Zilla Parishad School- Zapawadi**

Toilet & Urinal Requirement in Private Schools

S No	Name of School	Toilets		Urinals	
		Girls	Boys	Girls	Boys
Private Schools					
1	Matoshree Sagunabai Prathamik Vidyamandir	-	4	-	8
2	Mahatma Jotiba Phule Vidyamandir	27	13	52	54
3	Savitribai Phule Prathamik Vidyamandir				
4	Bhikusa High School	4	2	6	9
5	SMTPD Navjeevan Day School	8	6	11	24
6	Loknete ShankarRao Vaje Vidyamandir	46	30	53	62
7	Abhinav Bal Vikas Mandir				
8	Seth. B. N. Sarda Vidyamandir	3	7	6	29
9	Adarsh English Medium School	4	4	1	6
10	Kid's Academy	-	-	-	3
11	Silver Lotus English Medium School	-	-	2	6
12	Savitribai Pawar Prathmik Vidyamandir	6	2	9	7
13	Shri Mad Vidya Mandir				
14	English Medium School				
15	New English Medium School				
Total Requirement		98	68	139	209

- Only 2 school, out of 15, does not require construction of new toilets
- School No. 6 and 7, presently have only 4 toilets but still requires 76 toilets and 115 urinals

Investment Requirement for New Construction

Girls Toilets

Public- 7.01

Private- 24.2

Girls Urinals

Public- 9.29

Private- 23.91

Boys Toilets

Public- 2.61

Private- 17.45

Boys Urinals

Public- 1.73

Private- 32.86

Total toilets to be constructed = 231 (Investment- INR 51.73 Lakhs)

Total urinals to be constructed = 413

Total Investment for New Construction = INR 1.19 Crore

New Construction		Public			Private		
		Requirement	Rate	Total Cost	Requirement	Rate	Total Cost
Toilets req.	Girls	26	21,760	5.68	98	21,760	21.32
	Boys	6	21,760	1.31	68	21,760	14.80
Toilets CWSN	Girls	6	26,112	1.57	11	26,112	2.87
	Boys	5	26,112	1.31	11	26,112	2.87
Urinals	Girls	54	17,200	9.29	139	17,200	23.91
	Boys	11	15,730	1.73	209	15,730	32.86
Total				20.64			98.43

Note: All costs in Lakhs

Investment Requirement for Refurbishment

Wash Taps Public- 0.05 Private- 0.06	Screen Door Public- 0.97 Private- 0.	Ventilation Public- 0.58 Private- 0.16	Self-cleaning Unit Public- 1.32 Private- 0.50	Wash Basins Public- 2.72 Private- 2.09
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Total Investment for Refurbishment of Existing Toilets INR 8.78 Lakhs

Investment for Refurbishment of Existing **Public Toilets INR 5.64 Lakhs**

Investment for Refurbishment of Existing **Private Toilets INR 3.14 Lakhs**

Refurbishment	Public			Private		
	Requirement	Rate	Total Cost	Requirement	Rate	Total Cost
Wash Taps	21	254	0.05	24	254	0.06
Screen doors in girl's urinals	66	1,472	0.97	23	1,472	0.34
Ventilation	111	520	0.58	30	520	0.16
Self-cleaning facility in Urinals	88	1,500	1.32	33	1,500	0.50
Wash Basins + stop taps	117	2,326	2.72	90	2,326	2.09
Total			5.64			3.14

Note: All costs in Lakhs

O&M Proposal

- **Extension of the existing ULB contract** to maintain **public school** toilets along with PT/CT
- Exploring possibility of using **PPP** for O&M of Private Schools

Public Schools

Existing No. of Toilet Seats = 20
Proposed Toilet Seats = 43
O&M cost (@ Rs. 5.5/seat/day)
will be **Rs 346 per day**

Annual O&M Contract Value
INR 1.3 Lakhs

Private Schools

Existing No. of Toilet Seats = 41
Proposed Toilet Seats = 188
O&M cost (@ Rs. 5.5/seat/day)
will be **Rs 1260 per day**

Annual O&M Contract Value
INR 4.6 Lakhs

Note: Existing Contract of ULB for cleaning of PT/CT is the rate of INR 5.5/seat/day

Monitoring Proposal

- Formulation of **Parent-Teacher Association (PTA)**
- Implementing **daily maintenance system**- (format for daily activity to be filled by the worker) and monitored by the administration
- **ULB can monitor sanitation services in Public and Private Schools**- through Independent Private Agency
- **School Inspection by Block Development Officer, Dept. of Education**
- **Complaint redressal system** to be set up in schools, which is monitored by PTA/ ULB

Thank You

Annexure- Type of School Assessment

1.

Matoshree Sagunabai Prathamik Vidyamandir

Baseline Assessment:

School Category	Primary – Pvt. Aided
Class	1 st to 4 th Std.
Total No. of Students	535
No. of boys	284
No. of girls	251
Teaching Staff	M- 3, F- 9
Total Classrooms	06
Common Toilets for Boys & Girls	3 Toilet 7 Urinals
boys' toilet is under construction, so they have common toilet facility.	
Toilets for Staff	01
Total No. of Dustbins	06
No. of Cleaners	01 (daily once in a day)
The school is conducted in two shifts: 1 st + 2 nd –Afternoon, 3 rd + 4 th –Morning	



***School facilities:** School campus is well equipped with basic facilities such as playground, compound wall, toilets, class rooms with lights and fans, dustbins, etc but no chairs and benches. As school is conducted in two shifts the facilities are adequate.



Sanitation Facilities:



*Common toilet facility for girls' and boys, as boys' toilet is under construction.



Toilet Facility: They have common toilet facility for boys and girls i.e. they are using girls' toilets as boys' toilet is under construction. The toilets are designed child friendly. Toilets have proper doors, ventilators, lights, etc. There are buckets and taps in each toilet for water supply. The urinals have self cleaning facility but need to be refurbished. Provision of separate basins outside toilet for washing hands. No soaps or hand washes kept as children do not use it properly. The facilities provided by government are not adequate.

There is a separate toilet for staff located in the staff room. It is equipped with taps and buckets with proper water supply. The toilets are connected to the septic tanks, which outlets are let to the main drainage line.

*Staff toilet located near staff room

1.

Matoshree Sagunabai Prathamik Vidyamandir

Other Facilities:



*Ramps, aquaguards for drinking water, ventilators, windows, lights fans, etc. taps & buckets in toilets

Observations:

Water Supply: Nagar Palika water connection in taps is used for drinking purposes. Aquaguard used to purify water. 750 liters tank used to store drinking water. Bore water used for toilet use. 5000 liters overhead tank to store this water. There are separate wash basins (3 taps). The present water supply is sufficient for both purposes.

Maintenance: The school administration has appointed a worker for cleaning and maintenance of the sanitary facilities in the school. The toilets are cleaned daily once in a day every morning. Dustbins are provided in each classrooms. Daily the waste is collected by the municipality van. Sometimes they dump in the nearby municipality bin.

1.

Matoshree Sagunabai Prathamik Vidyamandir

Demand assessment-

*As per National Building Code

Girls' toilet					
Sr No.	Provisional head	Numbers to be provided	Current Status	Gap (Nos. required)	Remarks
1	Girls toilet squatting pan	1 Unit for every 40 girls + Lady teacher	0	3	Day school without residential facility.
2	Girls toilet for CWSN	At least 1 unit for in a girls' toilet block	0	1	in case only 1 girls' toilet is needed in a school, this single toilet must be designed for CWSN'. In case more toilets are needed, the others need not cater to CWSN.
3	Wash tap in girls toilet	1 tap in each toilet	0	3	Located conveniently for use by children as well adults.
4	Clothes hanging hook	Hooks in each toilet	0	3	At least 2 hooks at different child accessible heights-suitable for a 5 year old child to an adult.
5	Niche in wall	1 niche in each toilet	0	3	Recessed in the wall to keep sanitary napkins.
6	Ventilation arrangement	1 opening for ventilation in each toilet	0	3	Size 450x450 at a height and location that allows sunlight to penetrate for a few hours in a day for self drying.
7	Door	1 door in each WC	0	3	Door to be 2100mm high with child accessible latching arrangements
Girls' Urinal					
8	Girls' urinal	1 unit for 20 girls	0	7	With partitions. Two minutes waiting/queuing for using the facility at peak hours.
9	Self cleaning system	1 flushing system in each urinal	0	7	Any flushing system that washes the soiled surface with minimal water is acceptable. Use of recycled water is desirable. Use of standard urinal or toilet flush is not compulsory.
10	Ventilation arrangement	1 opening for ventilation in each urinal	0	7	Height and location that allows sunlight to reach the floor for few hours in a day for self drying.
11	Screen door	1 door for each urinal	0	7	Screen door to be 1500mm high with child accessible latching arrangement.

1.

Matoshree Sagunabai Prathamik Vidyamandir

Demand assessment-

*As per National Building Code

Boys' toilet					
Sr No.	Provisional head	Numbers to be provided	Current Status	Gap (Nos. required)	Remarks
12	Boys' toilet squatting pan	1 unit for every 80 boys+male teacher	0	2	Day school, without residential facility. In case only 1 boys' toilet needed in a school, this single toilet must be designed for CWSN. In case more toilets are needed, the others need not cater to CWSN. Located conveniently for child as well as adult use. hooks at different child accessible heights from 5 year child to adult use. Size 450x450mm at a height and location that allows sunlight to penetrate for few hours in a day for self drying. Door to be 2100mm high with child accessible latching arrangement.
13	Boys' toilet for CWSN	Atleast 1 unit in a boys' toilet block	0	1	
14	Wash tap in boys' WC	1 tap in each WC	0	2	
15	Clothes hanging hook'	2 hooks in each WC	0	2	
16	Ventilation in each toilet	1 opening for ventilation in each toilet	0	2	
17	Door	1 door in each WC	0	2	
Boys' Urinal					
18	Boys' Urinal	1 urinal for every 20 boys + male teacher	0	8	With partitions
19	Self cleaning system	1 flushing system in each urinal	0	8	Any flushing system that washes the soiled surface and works with minimal water is acceptable. Use of recycled water is desirable. Us of standard urinal or toilets flush is not compulsory.
20	Ventilation arrangement	1 opening for ventilation in each urinal	0	8	Height and location that allows sunlight to penetrate to the wet wall/urinal open and floor for a few hours in a day for self drying.

Demand assessment-

*As per National Building Code

Hand Wash					
Sr No.	Provisional head	Numbers to be provided	Current Status	Gap (Nos. required)	Remarks
21	Hand wash	Minimum of 2. one wash tap for every 20 children	3	11	can be provided (toilet/urinal) as common/ separate for girls' and boys' toilet blocks.
22	Hand wash MTDM kitchen	Minimum of 3. one wash tap for every 20 children	0	14	To be provided near MTDM kitchen. Preferably, should be segregated and separate from toilets hand wash for hygiene purposes.
23	Soap tray with soap	1 with every two wash taps	0	7	soap type can be according to feasibility.
24	Mirror	1 in each hand wash unit	0	14	
25	Wash water storage tank	Minimum 500 liters for a school of up to 100 children	0	1445	Subsequent calculation @5 liters per child. the tank capacity does not include a buffer storage reserve in case of emergency.

As the boys' toilet is under construction, they use common toilet facilities.

Presently there are 3 toilets and 7 urinals. As per norms additional 2 toilet seats and 7 urinals are required.