

THE URBAN RESTROOM COMPLEX



GUJARAT CSR AUTHORITY

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by Gujarat CSR Authority

Grand Toilets of the Past

Public toilets have been around since antiquity. And some of these were positively deluxe style.

According to sources, the oldest known sanitation system was created as far back as in 3200 BC, in a city by the river in Iran. Closer home, around 2500 BC, the Indus Valley civilisation boasted of a sophisticated sanitation system, complete with flushing toilets that were linked to brick-lined sewers. Ancient Rome too had public toilets dotting the empire. Some were so luxurious that toilet seats were fitted with carved marble armrests, while others were thoughtful enough to provide the modern equivalent of the toilet paper - a sponge fitted on a stick.



Reinventing the Approach to Public Toilets

The public toilet scenario in India, especially in urban areas, has a two fold problem. First, there are simply not enough of them. And second, those that exist are in appalling conditions. Most are dingy, smelly and downright unhygienic. There are several factors that together conspire to make the Indian public toilet a nightmare. These are the faulty design and materials that go into making them, the apathetic public, and the virtual absence of maintenance, to name a few.

With a little bit of care and thought, building and maintaining public toilets need not be the dirty job it is widely perceived to be. Internationally, the standards for public toilets are very high. Within India too, some of the





malls, restaurants and luxury hotels are able to successfully set a rather high bar in keeping their public toilets not only clean but also welcoming. The key lies in the little details that go into designing the toilets and the rigorous system of maintenance.

GCSRA's Public Toilets Project seeks to create a model where it is possible to establish a blueprint for cleanliness and user-friendly facilities in all public toilet complexes it creates. It seeks to replace leaky taps and misused WCs with sensor-based hands-free alternatives. Instead of making cleanliness in public toilets an unpleasant and labour-intensive experience, it seeks to design these facilities as practical and aesthetic spaces so that the public itself comes to care for them. After all, few abuse the fine toilets in leading hotels.

The public toilets will be conceived as getaways where users can retire to take care of their grooming needs, rather than as an amenity through which they quickly want to duck in and out of. These public toilets will be ultra-convenient stops where people can refresh themselves, have ready access to grooming and personal hygiene products and can even power up their smartphones or enjoy a cup of tea if they so desire.



What are the Principles of High Quality Public Toilet Complexes?

Access

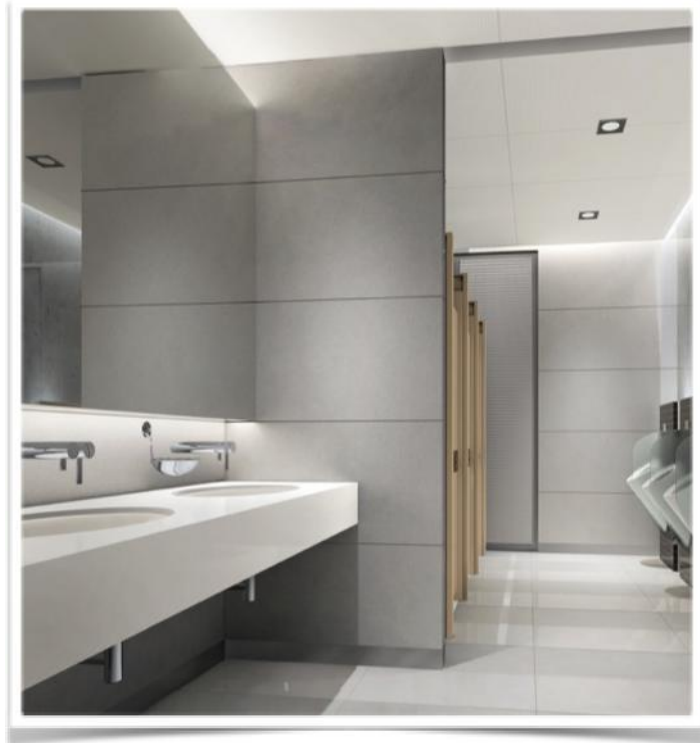
- + Close proximity to other important facilities
- + Visibility
- + Easy entry and access points

Signage

- + Pictorial or easy to follow
- + Appropriately located

Maintenance

- + Cleaning convenience
- + Easily available components
- + Management of water run-off



Design and layout

Minimal hand contact: Hands-free access and hands-free operation of equipment where possible ensures maximum hygiene.

Lighting and ventilation: These are key to improving the appearance and environment of the toilet. Good natural and artificial lighting make the toilets look pleasant rather than dingy, and effective ventilation helps prevent dampness and foul odour. Mechanical ventilation systems with exhaust fans along with ducts and grills could be used.

Ambience: Colours, finishes on materials and aesthetics can be strategically employed to create a pleasing and clean environment. The interiors of the toilet complexes should be well-lit, simple, uncluttered and eye-catching.

Concealed pipework: Concealed pipes are more aesthetic and also protect the pipes from damage.

Materials

Durability: All material should be durable and resistant to misuse and neglect.

Easy to clean and maintain: Materials and finishes used for fixtures, floors, walls and other items should facilitate easy cleaning without undue use of water and cleaning agents.

User friendly: Examples include non-slip flooring and less likelihood of breakages

First Phase Project Locations

Public toilet complexes are especially useful in areas that sees heavy crowds. Such locations include those such as around railway stations, bus stops in busy areas, hospitals and shopping complexes.

Preliminary studies to identify possible locations for the Project have been done.

Bharuch

Shital Circle near Bharuch Railway Station

Surat

(a) Chowpati, near Jawaharlal Nehru Garden in Athava Zone

(b) Shri Morarji Desai Circle in Athava Zone

(c) SMIMER Hospital near Sahara Gate in East Zone

Vadodara

Vadodara Railway Station

Ahmedabad

Lal Darwaja, near AMTS Bus Stand

Public Private Partnership

The construction, operation and maintenance of the toilet blocks under the GCSRA Project will be on a public-private partnership (PPP) basis along the following lines:

Land

Required land will be identified by the local body and handed over to GCSRA or the private company for a specific period of time, typically five years, for the building and operation of the toilets.

Construction

The Company will construct toilet blocks as part of its CSR activities in accordance with the specifications mutually agreed upon with GCSRA. The tendering for civil works, construction and supervision of the toilet blocks will be done by the Company.

Quality

The standards for construction and operation and maintenance (O&M) will be developed by GCSRA and these will be uniform for all the public toilets created under this programme.

Design and plans

GCSRA has a panel of architects to facilitate in the preparation of design and layout of the toilet blocks, including the facilities to be provided within the blocks. Companies, while free to engage their own architects, are encouraged to use GCSRA's panel of architects as much work has already been done to prepare the designs for high quality, user friendly toilet blocks.





O&M Standards Manual

A detailed manual for defining O&M standards for the public toilets will be prepared by the Company. The key aspects to be included in the Manual will be:

.Sequence of steps: The cleaning of the facility should follow a systematic sequence to prevent lapses and ensure efficiency in work.

◆ **Cleaning schedule:** Scheduled cleaning should be carried out on a daily, weekly, fortnightly and monthly basis, depending on the surface, fitting and wares to be cleaned.

◆ **Timing and frequency:** The cleaning schedule should be drawn up taking into account peak hours.

◆ **Cleaning equipment:** Appropriate tools and cleaning agents required for full toilet maintenance should be listed out.

◆ **Inspection:** The daily maintenance of the facility should be supervised, and the items for inspection should be defined and listed out. Appropriate steps that should be taken in the case of problems should also be defined.

Revenue Model

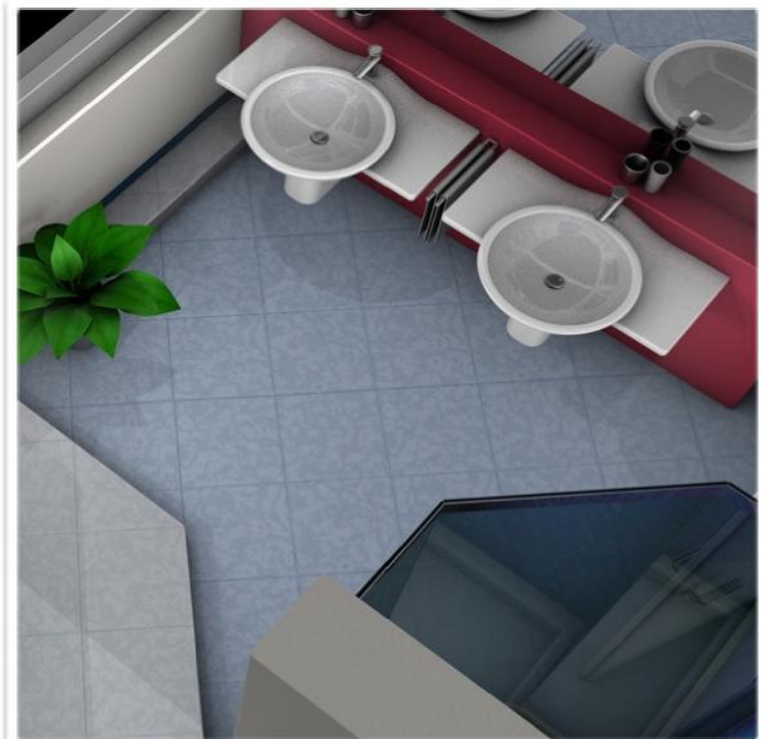
The O&M of the public toilets will be funded by two principle revenue streams - one, by the users themselves, and two, by tapping into the substantial advertising potential.

Basic Facilities: Users may be charged 25-50% of the costs for basic facilities

Additional Facilities: These will be fully paid for by the users

Advertisements: Revenue from advertising can be generated very creatively to make the public toilets sustainable. Different media options such as posters, TV and PA system may be explored for the display of ads. Advertising rights may be auctioned to a single agency to ensure a steady revenue stream. Permission from the local body for advertising will be specifically taken by GCSRA right at the beginning, when land is handed over.

Funding Gap: In case of a funding gap, this will be borne by the sponsoring Company on an annual basis for the first three years. Thereafter the facility will be transferred to the local body for O&M.





The Handover



On the completion of five years of operating and maintaining the public toilet facilities, the Company will handover all assets in running condition to the local body from whom land was acquired. The local body will own the entire facility from the date of transfer and will be free to deploy its own staff for O&M of the public toilets.



Standard Inclusions in all Toilet Complexes

All toilet blocks under the Project will have the following features:

- + **Access signage:** These should be clear for each gender and should be at easily noticeable locations.
- + **Hand wash area:** This area will have wash basins, soap dispenser, mirror, hand dryer, paper towel dispenser and a litter bin. Hands-free auto sensor tap and soap dispensers could be considered for this area.
- + **Urinals:** All urinals to be fitted with a sensor-operated flush valve with manual override feature, and each urinal to be separated by modesty boards that are high enough. One urinal must be installed at child's height. To keep the urinal area dry, options such as a stainless steel grating over the drainage may be installed below the urinal bowls.
- + **Water Closet Cubicles:** Each cubicle to have wall-mounted WCs, cubicle doors with latch and indicator bolts, sensor-operated flush valve with manual by-pass and manual override, sanitiser dispensing unit, toilet roll holders, waste disposal bin and jet-spray. Toilet seat sanitisers or disposable toilet seat covers should be provided for better hygiene. If any squat pans need to be installed, these should have kerbs to prevent water from flowing out of the cubicle. The doors of the cubicles will be fitted with coat hooks at a convenient height.
- + **Shower Cubicles:** These may especially be installed in toilet complexes near railway stations and hospitals. These cubicles would be fitted with overhead showers and efficient drainage.
- + **Grooming and Convenience:** Full-length mirrors to be installed in all toilet complexes for proper grooming. Additionally, conveniences such as a basic shaving kit for men, sanitary pads for women, basic toiletries and towels can be made available on chargeable basis.
- + **Storage Space:** A special space must be designated for storing cleaning and maintenance equipment to facilitate the work of the cleaning attendant.
- + **Waiting Area:** Depending on the location of the toilet complexes, waiting lounges of the toilet complexes can include conveniences such as mobile charging stations, Wi-fi, newspapers, and light refreshments and tea.



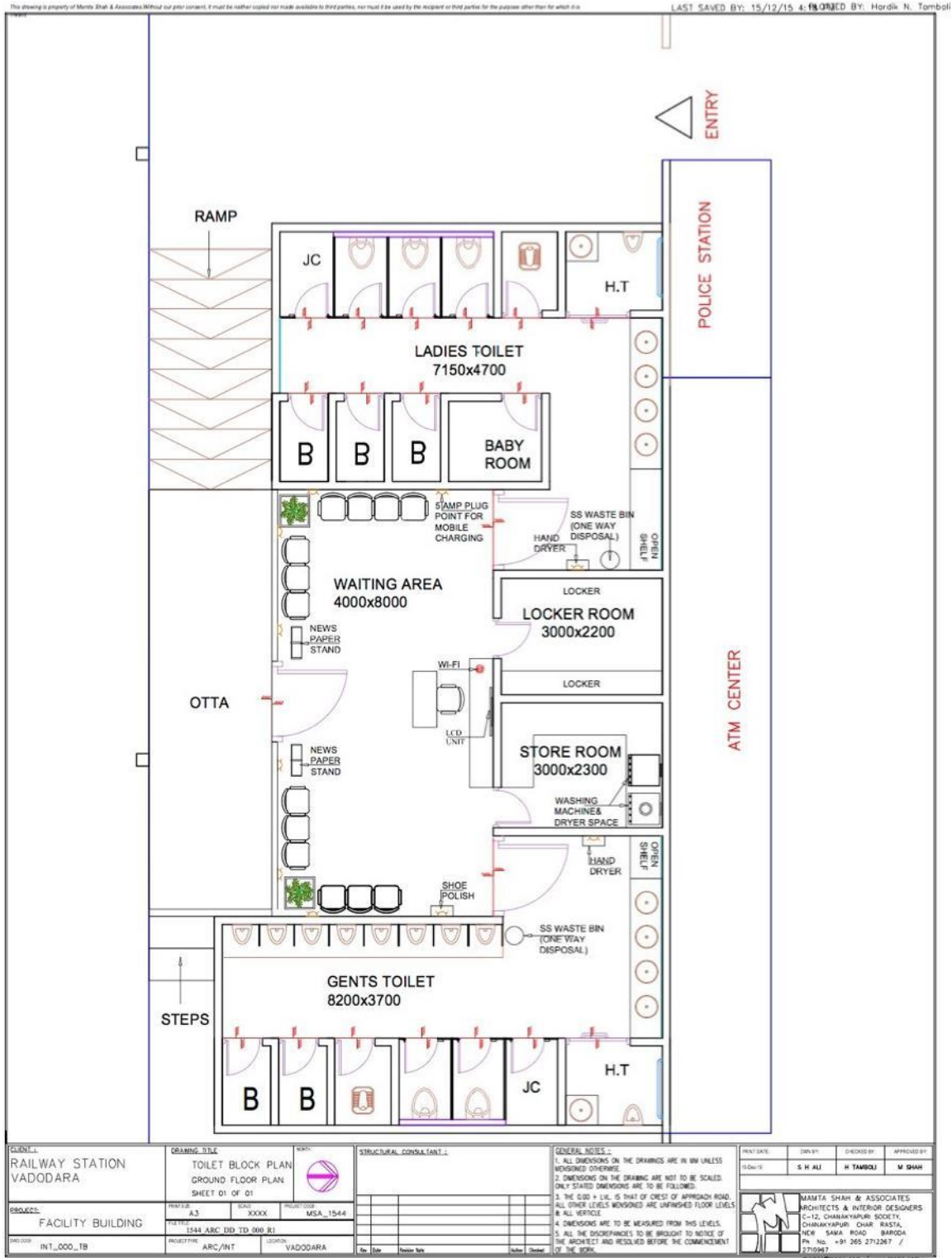
Budgetary Estimate for a Public Toilet Block

Description	Quantity	Rate per Unit	Amount
Complete construction and civil works of new toilet block	1000 sq. ft.	800	8,00,000
Vitrified flooring with wall tiles	2000 sq.ft.	200	4,00,000
Wash basin counter (Cera/Hindware/Jaquar)	30 r. ft.	2500	75,000
Wash basin	7 units	8,500	59,500
Hand dryer	2 units	15,000	30,000
Soap dispenser	5 units	1,200	6,000
Mirror	1 set	30,000	30,000
Robe hooks	10 units	600	6,000
Wall-mounted WC with concealed tank and flush valve	14 units	26,000	3,64,000
Health faucet	14 units	2,000	28,000
Toilet roll holder	14 units	1,000	14,000
Indian WC with flush cock	7 units	5,000	35,000
Urinal with sensor kit	20 units	15,000	3,00,000
Modesty boards for urinals	20 units	3,000	60,000
Bib cock	21 units	2,200	46,200
Pillar cock	21 units	2,500	52,500
Stop cock	5 units	1,200	6,000
Bottle trap for WC and Urinal	27 units	2,000	54,000
Small trap	10 units	800	8000
Spout and overhead shower for shower cubicle	5 units	20,000	1,00,000
Cubicle for WC and shower area	19 units	25,000	4,75,000
Flush doors with frames and laminate finish	200 sq. ft.	750	1,50,000
Aluminium ventilation grills	70 sq. ft.	300	21,000
Electrical works	1000 sq. ft.	170	1,70,000
Plumbing works	1000 sq. ft.	150	1,50,000
Signages, dustbins and other toilet accessories	1 set	20,000	20,000

Description	Quantity	Rate per Unit	Amount
Total Amount			34,66,181
1% Labour Cess			34,662
Total Amount			35,00,843
5% Contingency			1,75,042
TOTAL AMOUNT			36,75,885



Sample Layout



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