



STATE MISSION DIRECTORATE, SWACHH BHARAT MISSION (U)
URBAN DEVELOPMENT & HOUSING DEPARTMENT
GOVERNMENT OF SIKKIM



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**PROPOSAL FOR COMMUNITY SANITARY COMPLEXES SUBMITTED TO MINISTRY OF
OVERSEAS AFFAIRS**

ABSTRACT:

The Community Sanitary Complexes/toilets to be constructed under SBM (U) need to be made with a few design considerations like:-

- Separate toilet blocks for men and women with separate entries
- Seats for children in the section for women
- Waiting/circulating area
- A place for the caretaker from where he/she can oversee both entries- men's and women's
- Urinal facilities for men
- Facility to store large volumes of water

TECHNICAL SPECIFICATIONS:

The ULBs of Sikkim have planned out a concept for Community Sanitary Complexes/toilets to be constructed in Sikkim. It would be a 2 storey complex with the ground floor catering to male and the first floor catering to female.

The ground floor will have 3 urinals, 3 toilet cubicles, 3 bathing cubicles and 3 hand wash sinks.

The first floor will have 4 toilet cubicles, 3 bathing cubicles and 4 hand wash sinks. Each floor will be 14 feet by 21 feet bringing the total surface area of the complex to 588 square feet. Additionally it will also act as a refreshment complex with arrangements for showers, clothes washing area and also sanitary napkin vending machine (in the female section). Water tanks would be placed in the terrace of the complex.

REQUIREMENTS:

There are 7 ULBs in Sikkim, namely

1. Gangtok Municipal Corporation
2. Mangan Nagar Panchayat
3. SingtamNagarPanchayat
4. Rangpo Nagar Panchayat
5. GyalshingMunicipal Council
6. NayaBazarJorethang Municipal Council
7. NamchiMunicipal Council

Gangtok Municipal Corporation with a population of 100286 as per 2011 census faces a demand for more sanitary complexes. So it is provided that 2 CSC may be taken up for GMC. Similarly, in the other 6 ULBs we intend to take up 1 CSC each.

FINANCIALS:

The cost indication is as under:-

1. GMC - 2 CSCs - Rs. 2087000 X 2 = Rs. 4174000
2. ULBs - 1 CSC per ULB = Rs. 2087000 X 6 = Rs. 12522000

TOTAL COST = Rs. 16696000

Sl	Particulars	Quantity	Rate	Amount
1	Earth work in excavation in mixed soil in foundation trenches i/c dressing of all sides, watering and ramming i/c disposal of excavated earth upto 30 m lead and lift upto 1.5 m, disposed earth to be leveled and neatly dressed as per the direction of Engineer - in - charge all complete.			
	Wall			
	30 x (3 + 11) 6 = 1260 cft			
	$\frac{2}{x}$			
	Isolated foundation			
	4 x 6.00 x 6.00 x 8.00 = 1152.00 cft			
	Plinth Foundation			
	Long wall			
	2 x 1.00 x 1.00 x 21.00 = 42.00 cft			
	Cross wall			
	2 x 1.00 x 1.00 x 14.00 = 28.00 cft			
	= 1222.00 cft			
	= 34.64 cum	34.64 cum	257.17 /cum Rs	8,908.00
2	Providing and laying hand packed stone soling in building works with clean hard selected stones all complete.			
	Isolated foundation			
	4 x 5.00 x 5.00 x 0.50 = 50.00 cft			
	Inside Plinth			
	1 x 21.00 x 14.00 x 0.50 = 147.00 cft			
	= 197.00 cft			
	= 5.58 cum	5.58 cum	560.00 /cum Rs	3,125.00
3	Providing & Laying in position cement concrete of 1 : 3 : 6 (1 cement, 3 coarse sand, 6 graded stone aggregate of 20 mm and down size) including compacting curing etc. all complete.			
	Isolated foundation			
	4 x 5.00 x 5.00 x 0.33 = 33.00 cft			
	Inside Plinth			
	1 x 21.00 x 14.00 x 0.33 = 97.02 cft			
	= 130.02 cft			
	= 3.69 cum	3.69 cum	3821.00 /cum Rs	14,099.00
4	Providing and laying Coarse Rubble Stone Masonry with hammered dressed clean hard selected stone in 1:3:6 c.c. (1 cement, 3 clean coarse sand, 6 clean hard graded stone chips of size 40 mm down nominal gauge) including bond stone, through stone of size 150 mm x 150 mm x 450 mm manufactured in 1:4:8 (1 cement, 4 clean coarse sand, 8 clean hard stone aggregate of size 40 mm and down) curing etc. all complete.			
	Plinth Foundation			
	Long wall			
	2 x 1.00 x 1.00 x 21.00 = 42.00 cft			
	Cross wall			
	2 x 1.00 x 1.00 x 14.00 = 28.00 cft			
	= 70.00 cft			
	= 1.98 cum	1.98 cum	2971.66 /cum Rs	5,884.00
5	Providing and laying Plum Concrete with 50 % stone of size not exceeding than 15 cm including shuttering, compacting curing etc. all complete.			
	Wall			
	30 x (2 + 6) 11 = 1320 cft			
	$\frac{2}{x}$			

[illegible]

29.74 sqm	568.00 /sqm	Rs	16,892.32
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=	812.00	sft				
=	75.46	sqm	75.46 sqm	415.46 /sqm	Rs	31,351.00

=	857.00	SFT	(B)			
=	79.65	sft				
=	7.40	sqm	7.40 sqm	630.75 /sqm	Rs	4,668.00

=	21.53	qtl.	21.53	qtl.	6728.30 /qtl	Rs	144,860.00
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Ground floor

Long wall	4	x	21.00	x	10.00	=	840.00	sft	
Cross wall	5	x	14.00	x	10.00	=	700.00	sft	
	1	x	4.00	x	10.00	=	40.00	sft	
First floor									
Long wall	3	x	21.00	x	10.00	=	630.00	sft	
Cross wall	5	x	14.00	x	10.00	=	700.00	sft	
						=	2910.00	sft	(A)

Deduction of openings									
D1	=	2	x	3.00	x	7.00	=	42.00	sft
D2	=	12	x	2.50	x	7.00	=	210.00	sft
W1	=	1	x	12.50	x	6.00	=	75.00	sft
W2	=	1	x	8.00	x	6.00	=	48.00	sft
W3	=	15	x	3.00	x	4.00	=	180.00	sft
							=	555.00	sft
							=	2355.00	sft
							=	1766.25	cft
							=	50.06	cum
								50.06	cum
								5399.93	/cum
								Rs	270,320.00

11 Providing and laying 20mm thick **cement plaster** of 1:3 mix in single coat including finishing even & smooth and curing etc. all complete.

Ground & First FLOOR CEILING									
	2	x	23.00	x	16.00	=	736.00	sft	
Vide Item no 10	2355.00	x		2 side		=	4710.00	sft	
							5446.00	sft	

Waist slab	1	x	12.00	x	5.00	=	60.00	sft	
Landing	1	x	5.00	x	5.00	=	25.00	sft	
							85.00	sft	
						=	5531.00	sft	
						=	514.03	sqm	514.03 sqm
								191.46	/sqm
								Rs	98,416.00

12 Providing and laying white or **colour glazed tiles anti skid** (elegant, cashmere, egyptian rustic, celebrity, lara etc or equivalent) of glossy series or celebrity, elegant or equivalent in flooring, treads of steps landing etc of size 300 mm x 300 mm laid on a bed of 15 mm thick cement mortor 1:3 (1 cement, 3 clean coarsensand) finished with flush pointing with white cement slurry.

Anti skid tiles flooring									
Toilet flooring	2	x	21.00	x	14.00	=	588.00	sft	
						=	588.00	sft	
							54.65	sqm	54.65 sqm
								835.62	/sqm
								Rs	45,664.00

13 P/L flooring with Marble stone slabs flooring of size not less than 1.0 sqm of 20 mm thick laid over 20mm average 1:4 cm thick bare laid cement concrete and joint treated with white cement,mixed with macching pigment ,curing

Ground Floor	1	x	32.00	x	13.00	=	416.00	sft	
First Floor	1	x	32.00	x	22.00	=	704.00	sft	
							1120.00	sft	
							104.09	sqm	0.00 sqm
								1721.62	/sqm
								Rs	0.00

14 Providing and laying flooring with Grainate Marble stone slab flooring of size not less than 1.0 sqm of 20 mm thick laid over 20 mm 1:4 cm thick bare laid cement concrete and

Tread	12	x	1.00	x	5.00	=	60.00	sft					
Riser	12	x	0.50	x	5.00	=	30.00	sft					
							90.00	sft					
							8.36	sqm	8.36 sqm	2693.12 /sqm	Rs	22,526.00	*

15. Providing and laying white or colour or ceramic glazed tiles of size 200 mm x 300 mm in special colours (black, burgundy, pink, midnight blue, alpine blue or equivalent) in skirting, risers of steps and Dados on 12 mm thick cement plaster 1:3 (1 cement, 3 clean coarse sand) bare and jointed with white cement slurry.

Dados for Toilet

28	x	4.00	x	5.00	=	560.00	sft	
7	x	4.00	x	5.00	=	140.00	sft	
24	x	4.00	x	5.00	=	480.00	sft	
6	x	4.00	x	5.00	=	120.00	sft	
					=	1300.00	sft	(A)

Deduction of openings

Deduction of openings

D2	=	13	x	2.50	x	7.00	=	227.50	sft				
								227.50	sft	(B)			
								(A-B)	=	1072.50	sft		

16. Providing/ fitting/ fixing of dressed sal timber in all types of frames complete.

With imported timber from outside the state

Frames for Doors

D1	=	2	x	1	x	2.00	=	4.00	rft				
		2	x	2	x	7.00	=	28.00	rft				
D2	=	12	x	1	x	2.50	=	30.00	rft				
		12	x	2	x	7.00	=	168.00	rft				
							=	230.00	rft				
	=	230.00	x	0.33	x	0.25	=	18.98	cft				
							=	0.54	cum	0.54 cum	##### /cum	Rs	33,324.00

17. Providing fitting & fixing water proof flush door shutters, solid block hard core construction with frame of 1st class hard wood with well matched 3 mm teak ply decorative type on one face of the shutters including hinges with ceramic rivets etc.

Doors 38mm

D1	=	2	x	2.00	x	7.00	=	28.00	sft				
D2	=	12	x	3.00	x	7.00	=	252.00	sft				
							=	28.00	sft				
							=	2.60	sqm	2.60 sqm	3044.33 /sqm	Rs	7,915.00

18. Providing & fixing brass bright finished butt hinges with necessary screws etc. complete.

125mm x 31mm x 4mm

Door	=	14	x	3	=	42	nos						
					=	42	nos	42 nos	193.72 /each	Rs	8,136.00		

19. Providing, fitting & fixing sliding door bolts of size 300mm x 16mm with nuts and screws etc. complete.

Brass (Chromium plated)

Door	=	14	x	1	=	14	nos						
					=	14	nos	14.00 nos	1003.40 /each		14,048.00		

20. Providing, fitting & fixing Tower bolts 250 x 10 mm with necessary screws etc. complete.

Brass (Chromium plated)

Door	=	14	x	2	=	28	nos						
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cemcote etc. of approved quality and manufacture on exterior walls to give an even shade including preparation of surface on new surface complete.

Snowcem, durocem, cemcote

External wall Surface

v.i.no. (24)

40%

= 183.01 sft

= 183.01 sft

183.01 sqm

65.89 /sqm Rs

12,059.00

- 27 Providing and French spirt polishing two or more coats including cleaning of the surface to make smooth and free from dirt and dust and sand papering etc. on new look complete.

Doors

v.i.no. (17)

=

2.60

x

2 side

= 5.20 sqm

5.20 sqm

321.15 /sqm Rs

1,670.00

- 28 Providing & applying priming coat with ready mixed Red oxide, zincromate primer on steel/galvanized iron steel works including preparation of the surface complete.

v.i.no. (23.00

=

28.16

x

2 side

= 56.32 sqm

= 56.32 sqm

56.32 sqm

19.45 /sqm Rs

1,095.00

- 29 Providing and painting with ready mixed paint of approved quality & shade with two or more coats to give an even and smooth shade including cleaning the surface complete on new surface.

v.i.no. (28)

=

56.32 sqm

56.32 sqm

34.70 /sqm Rs

1,954.00

30

Providing, fitting and fixing white vitreous china pedestal (European type) water closet (W.C) pan with seat and lid with CP brass hinge, 10 lit low level with fitting 140mm flush bend, 200mm overflow pipe with specilas, including providing and painting and making good the wall and the floors as required all complete. W.C pan European bidgets costelation CAT NO 30006

7.00 nos

7630.48 each Rs

53,413.00

31

Providing fitting fixing white vitreous china flat back or wall corner lipped front urinal basin of size 440x315x325 mm with 5 litre automatic flushing, cistern with brackets, GI flushing pipe and spreaders with brass unions and GI clamps including cutting and making good the walls floors as required all complete.

range of two urinal

3.00 nos

6011.12 each Rs

18,033.00

32

Providing fitting fixing white vitreous china Wash flat back basin with GI BRACKETS, PAINTED, 15MM CP mm CP brass chain with rubber plug, 32mm CP brass waste pipe, lead or PVC connection 32mm dia CP Brass cap and unions complete including cutting making good the wall wherever required

, HINDWARE

One washbasin with two pillar cock

7.00 nos

4426.56 each Rs

30,986.00

34

Providing and fitting chromium plated toilet paper holder including making holes and fixed to timber cleats with CP screws washer etc all complete.

7.00 nos

458.21 each Rs

3,207.00

35

Providing and fitting fixing beveled gauge mirror of superior quality with 6mm AC sheet ground and fixed to timber cleats with CP screws, washer etc complete

2.00 nos

888.80 each Rs

1,778.00

36

Providing and fitting fixing porcelain soap tray etc complete

7.00 nos

545.20 each Rs

3,816.00

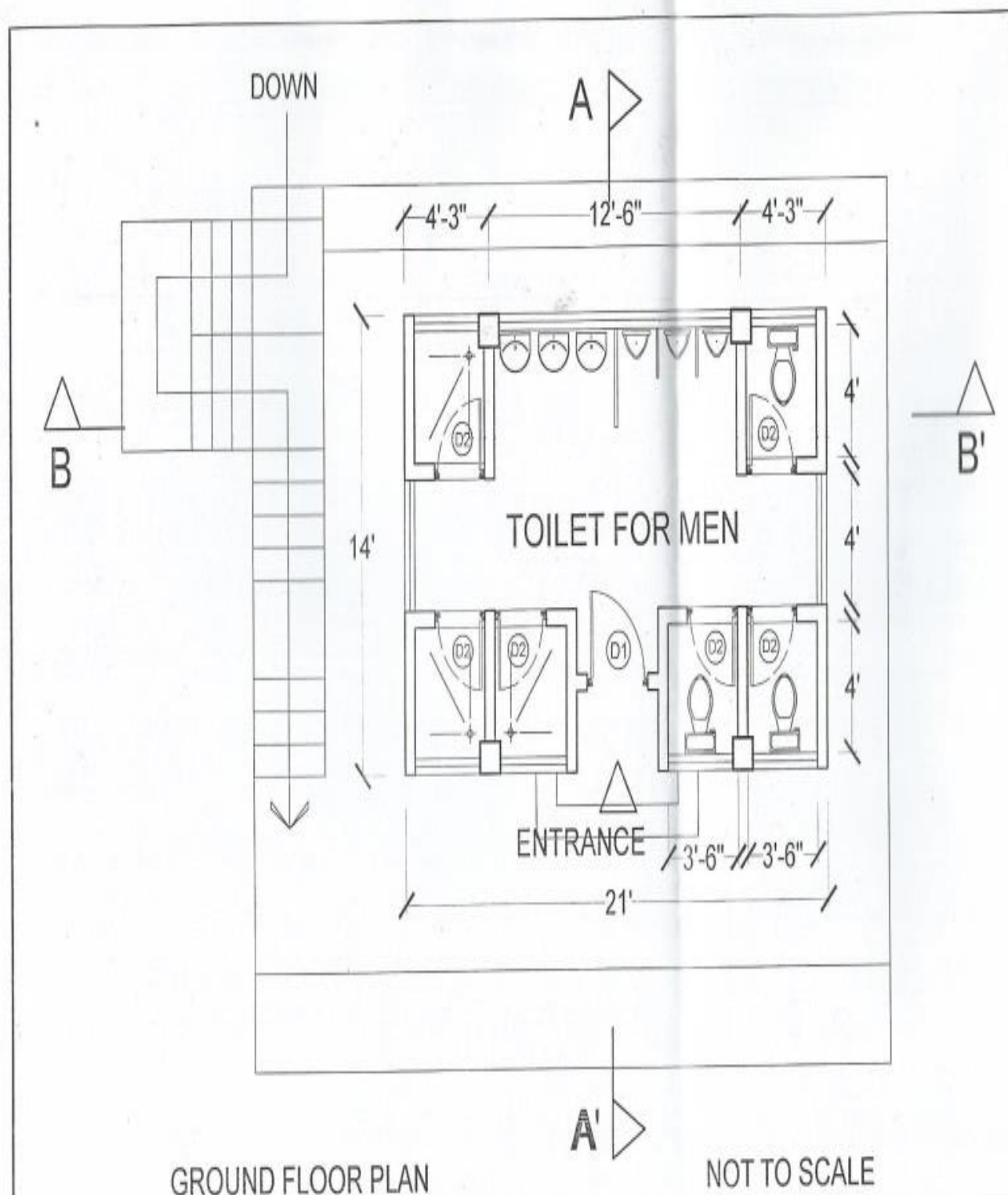
37	Providing and fitting fixing towel ring of chromium plated brass and fixed to timber cleats with CP screws,washer etc complete	2.00 nos	936.13 each	Rs	1,872.00
38	Carriage of stock material beyond 10km but within 05km including loading and unloading of material within 30m lead all complete.				
	Cement				
	v.i.no.(3)	=	3.69 x 4.400	= 16.24	bags
	v.i.no.(4)	=	1.98 x 1.561	= 3.09	bags
	v.i.no.(5)	=	39.48 x 3.200	= 126.34	bags
	v.i.no.(6)	=	21.53 x 8.000	= 172.24	bags
	v.i.no.(11)	=	514.03 x 0.228	= 117.20	bags
	v.i.no.(12)	=	54.65 x 0.122	= 6.67	bags
	v.i.no.(15)	=	99.67 x 0.213	= 21.23	bags
				= 463.01	bags
		say		= 463.00	bags
	Steel			= 231.50	qtls
	v.i.no.(9)			= 21.53	qtls
				= 253.03	qtls
				25.30	MT
	Haulage		25.30 mt	167.10 /mt	Rs 4,228.00
	Loading & Unloading		25.30 mt	153.58 /mt	Rs 3,886.00
	Head Load		253.03 qtl	5.41 /qtl	Rs 1,369.00
39	Carriage of non stock material beyond 50km but within 60km all complete.				
	Sand				
	v.i.no.(3)	=	3.69 x 0.485	= 1.79	cum
	v.i.no.(4)	=	1.98 x 1.181	= 2.34	cum
	v.i.no.(5)	=	39.48 x 0.223	= 8.80	bags
	v.i.no.(6)	=	21.53 x 0.450	= 9.69	cum
	v.i.no.(11)	=	514.03 x 0.024	= 12.34	cum
	v.i.no.(12)	=	54.65 x 0.013	= 0.71	cum
	v.i.no.(15)	=	99.67 x 0.015	= 1.50	cum
				= 37.17	cum (A)
		@1.84 mt/cum		68.39	mt
	Stone				
	v.i.no.(2)	=	5.58 x 0.950	= 5.30	cum
	v.i.no.(3)	=	3.69 x 0.969	= 3.58	cum
	v.i.no.(4)	=	1.98 x 1.189	= 2.35	cum
	v.i.no.(5)	=	39.48 x 0.500	= 19.74	cum
	v.i.no.(6)	=	21.53 x 0.882	= 18.99	cum
				= 49.96	cum (B)
		@2.2 mt/cum		109.91	mt
	(A) + (B)	(sand + stone)	=	178.30	mt
	Haulage		178.30 mt	167.10 /mt	Rs 29,795.00
	Loading & Unloading		87.13 cum	87.00 /cum	Rs 7,580.00
	Head Load		87.13 cum	127.97 /cum	Rs 11,150.00
40	Provision for throwing away of excavated earth beyond 15km but within 20km by means of transportation all complete.				
	Throwing away of excavated earth				
	v.i.no.(1)	=	34.64	cum	
	Add 20% for loose volume				
		=	6.93	cum	
		=	41.57	cum	
	Deduct filling volume				
	v.i.no.(7)	=	19.47	cum	
		=	22.10	cum	
			22.10 cum	340.21 /cum	Rs 7,519.00
41	Provision for Septic Tank.				150,000.00

		Total	Rs	<u>1,525,229.32</u>
42	Sanitary Napkin Vending Machine			
a	Vending Machine for Women Hygiene with electronic coin validator			150,000.00
b	Packing Forwarding ,transportation and Installation charges			35,500.00
	ADD CST ON item no 42 (a and b) 14.5%	14.50% on	Rs	17,500.00
c	Disposar of sanitary napkin to be installed inside womens toilet			7,685.00
	ADD VAT on item no 42 (c) 5%	5.00% on	Rs	55,500.00
d	Packing ,transportation and commissioning charges			2,775.00
				17,500.00
43	External and internal electrification (to be paid on actual)	12.50% on	Rs	171,903.67
44	External and internal water supply and sanitation	7.50% on	Rs	<u>103,142.20</u>
			Rs	2,086,735.18
			Rs	Rs. 2,086,735.18
		SAY	Rs.	2,087,000.00

(Rupees Twenty Lakhs Eighty Seven Thousand) only

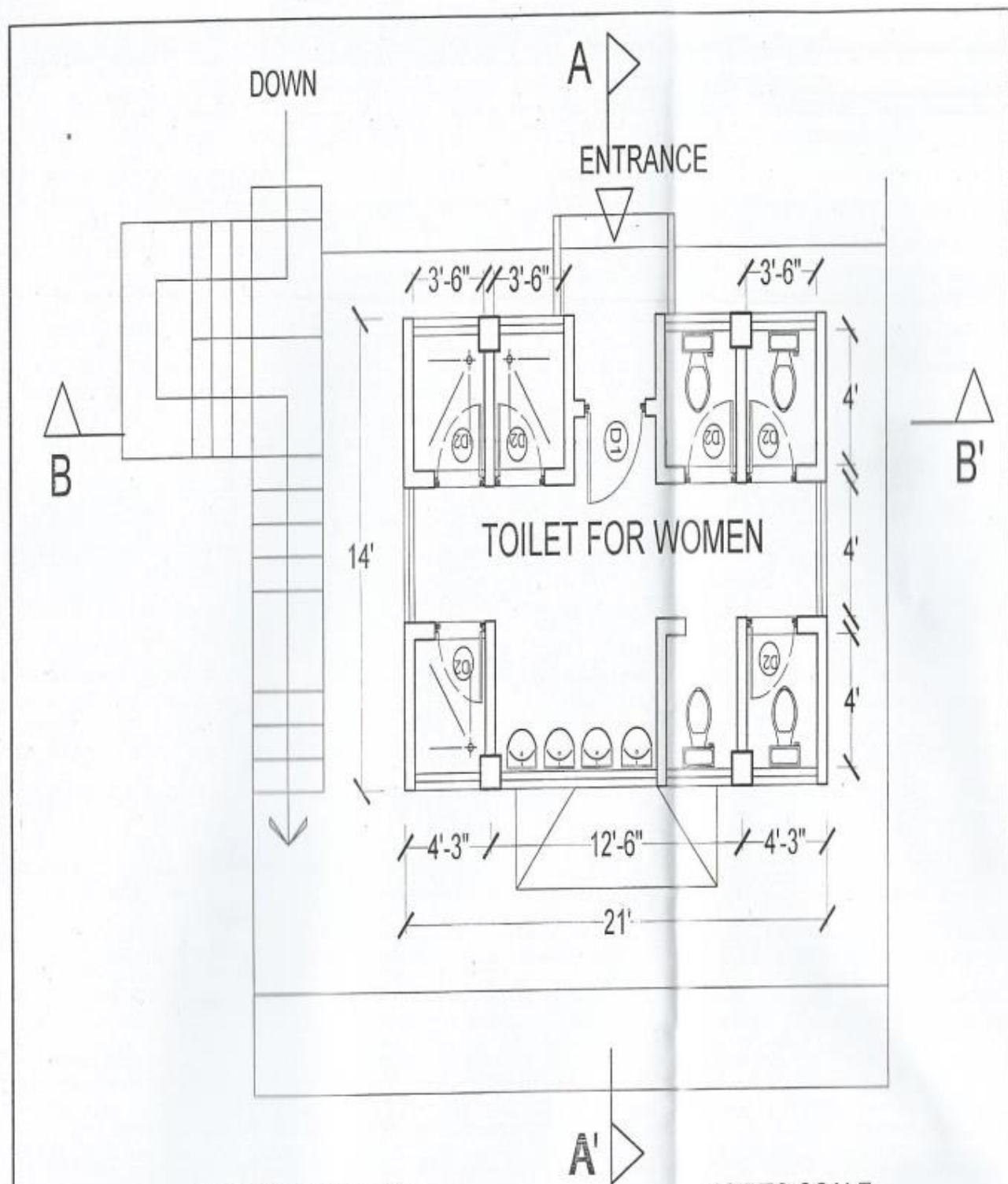
Junior Engineer
UD & HD Department
Government of Sikkim.

Assistant Engineer
UD & HD Department
Government of Sikkim.



COMMUNITY TOILET

DESIGN CELL
URBAN DEVELOPMENT & HOUSING DEPARTMENT



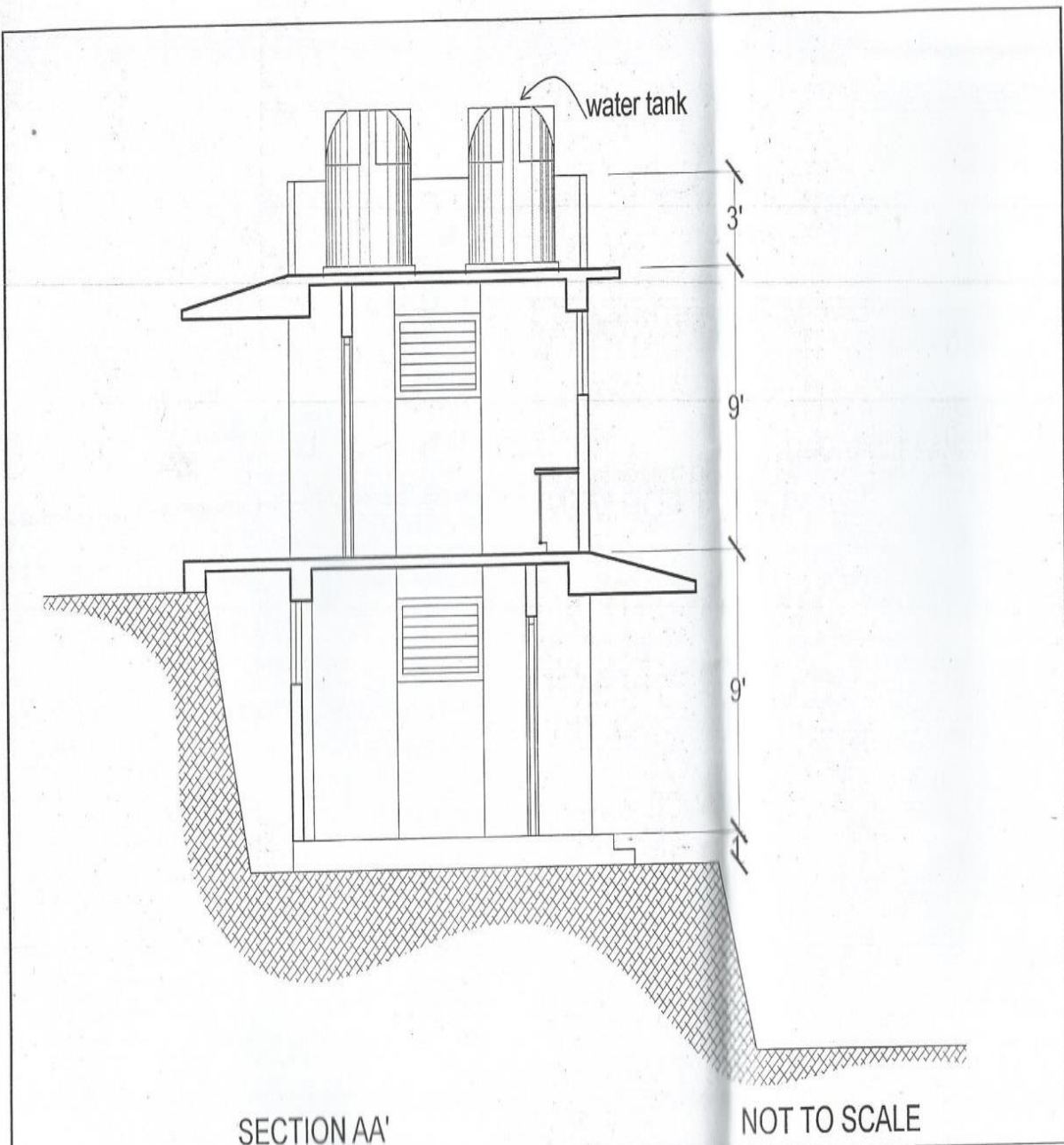
FIRST FLOOR PLAN

NOT TO SCALE

COMMUNITY TOILET

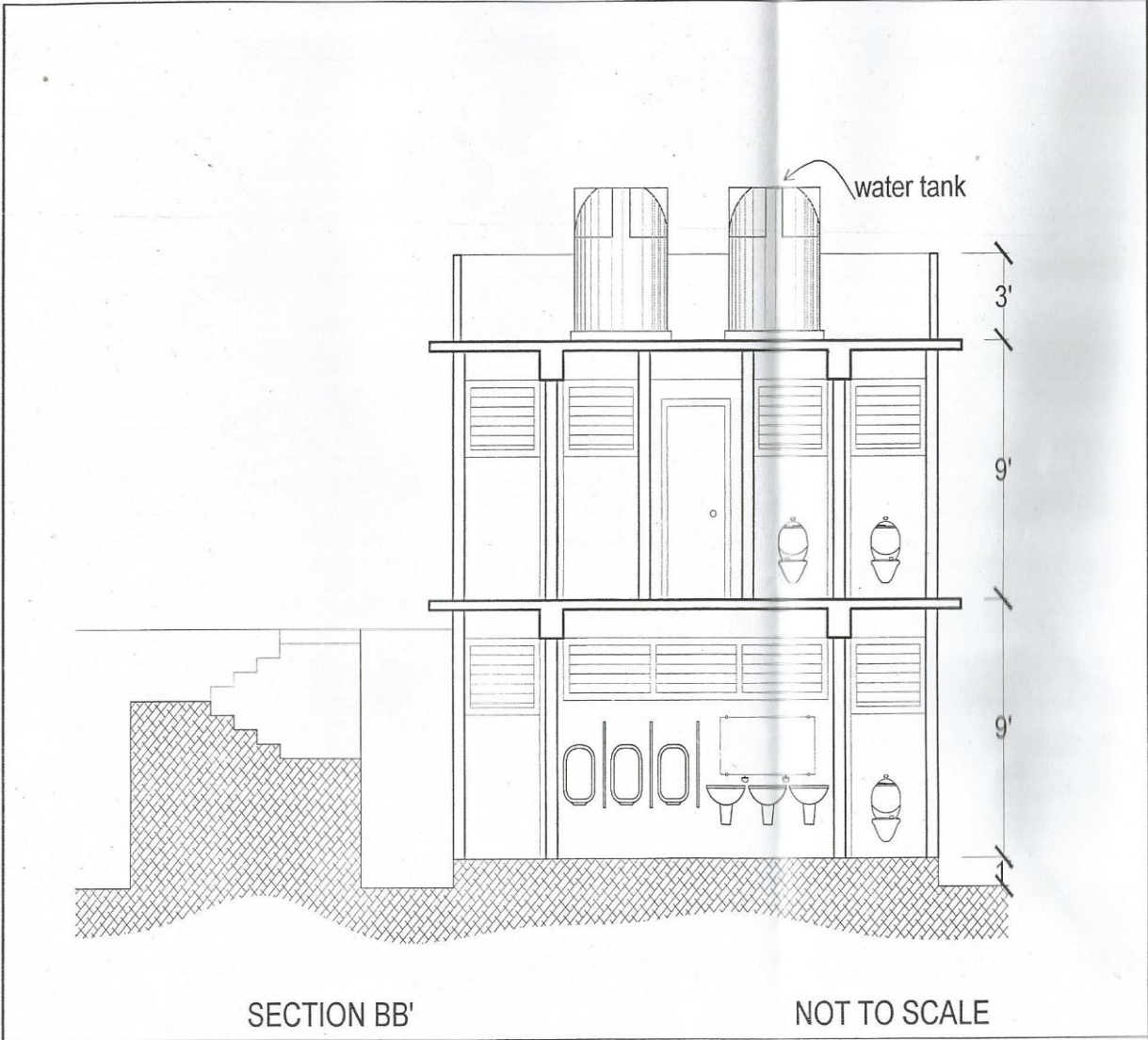
DESIGN CELL

URBAN DEVELOPMENT & HOUSING DEPARTMENT



COMMUNITY TOILET

DESIGN CELL
URBAN DEVELOPMENT & HOUSING DEPARTMENT



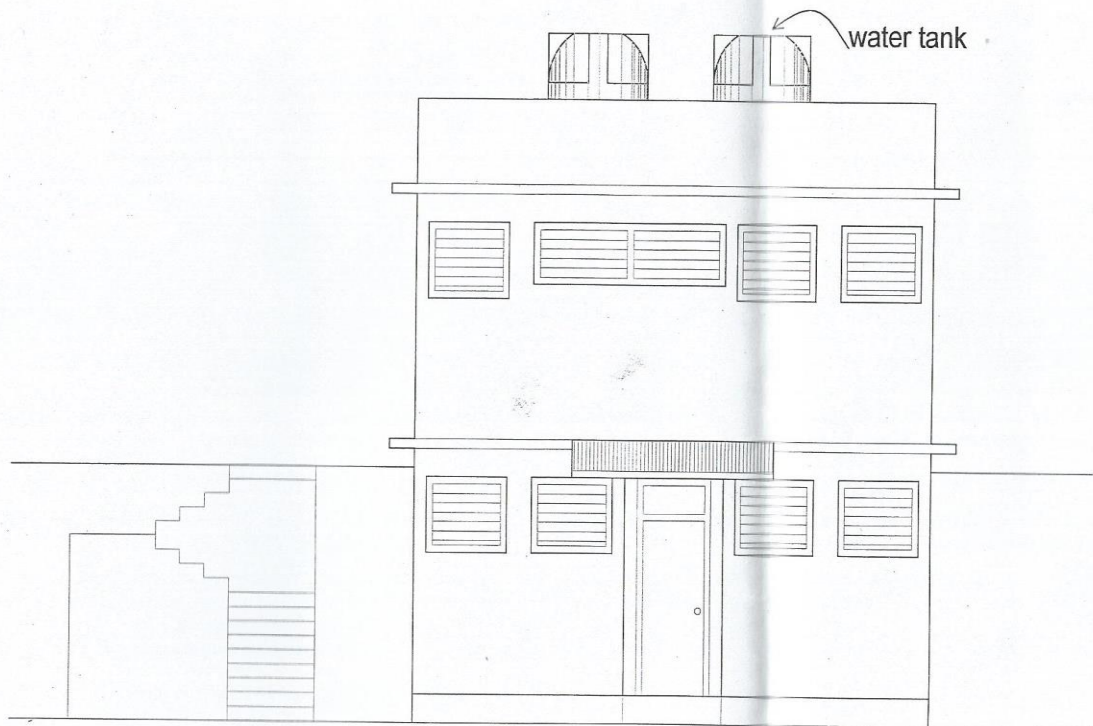
SECTION BB'

COMMUNITY TOILET

NOT TO SCALE

DESIGN CELL

URBAN DEVELOPMENT & HOUSING DEPARTMENT



FRONT ELEVATION

NOT TO SCALE

COMMUNITY TOILET

DESIGN CELL

URBAN DEVELOPMENT & HOUSING DEPARTMENT