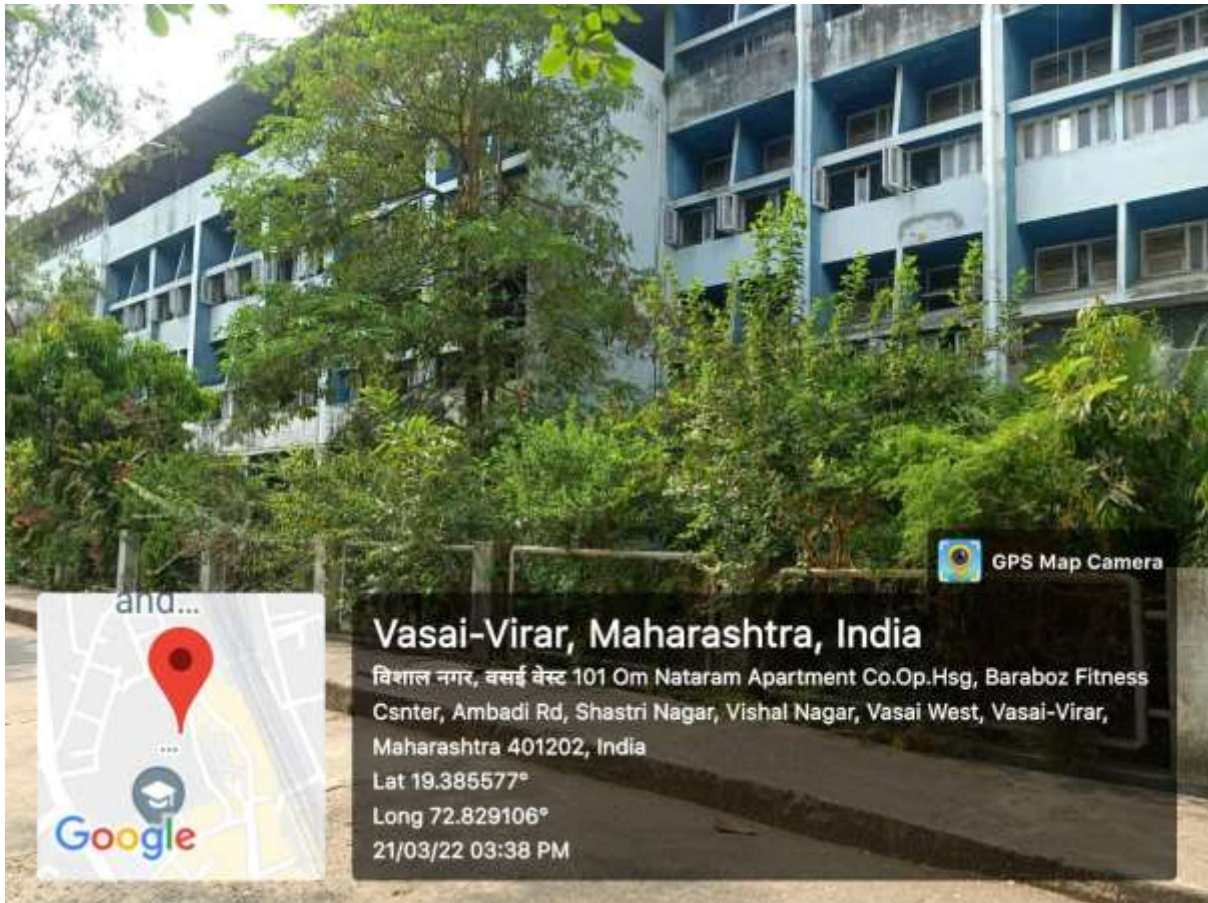


## Water conservation



The wastewater from the Botany department turned towards the garden

## Water conservation



## Water conservation



## Water conservation



During the rainy season, the department of chemistry uses rainwater to lessen the burden on the water provided by the Municipal corporation. The flow of terrace water during the rain turned to the main tank by pipe and we use it for the departmental daily use. This is a small attempt to conserve water.

## Water conservation



## Water conservation



GPS Map Camera



### Vasai-Virar, Maharashtra, India

विशाल नगर, वसई वेस्ट 101 Om Nataram Apartment Co.Op.Hsg,  
Baraboz Fitness Csnter, Ambadi Rd, Shastri Nagar, Vishal  
Nagar, Vasai West, Vasai-Virar, Maharashtra 401202, India

Lat 19.385402°

Long 72.829264°

21/03/22 03:25 PM

## Water conservation



College has dug two wells to meet the daily water needs of the institution. The location of the wells is where the flow of rainy water percolates the adjoining place of the wells. We get perennial water from there. This is probably because of a small initiative to conserve water.

## Water conservation



GPS Map Camera



### Vasai-Virar, Maharashtra, India

विशाल नगर, वसई वेस्ट 101 Om Nataram Apartment Co.Op.Hsg,  
Baraboz Fitness Csnter, Ambadi Rd, Shastri Nagar, Vishal  
Nagar, Vasai West, Vasai-Virar, Maharashtra 401202, India

Lat 19.385323°

Long 72.829049°

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## Water conservation



The college has installed a water sprinkler system for decoration purposes but it has been taken utmost care to reuse of water.

TECHNICAL REPORT

On

**RAIN WATER HARVESTING SCHEME**

For

**Institutional Building**

**Arts Science & Polytechnic Workshop Buildings, S. No. 20, 21 (P), 22 & 23,  
Village : Navghar, Vasai Road (W), Distt.: Palghar, Maharashtra- 401 202**



Project Developers :

**M/S VIDYA VARDHINI**

Project Architect :

**M/S SHILP SADHANA ARCHITECTS**

Prepared By



**M/s Green Care Solutions**

217, Ambika Commercial Complex, Navghar, Vasai Road (E), Palghar : 401 210

Te.: 0250-2391299, Mob: +91- 9975975645 /08976011736

e-mail:gcsolutions@rediffmail.com

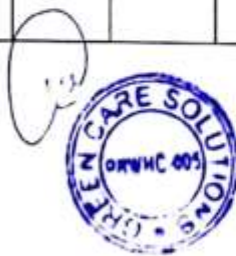


Principal

PRINCIPAL  
A. V. COLLEGE OF ARTS  
R. M. COLLEGE OF COMMERCE  
E. S. A. COLLEGE OF SCIENCE  
VASAI ROAD, DIST. PALGHAR-401202

## Check List for OC

Sr No.	Document For OC	Check Appropriate Box		
		Yes	No	Not applicable
1	Completion Certificate of RWH system	√		
2	No. of Rain Water Downtake pipes & final location of pipe	√		
3	Final Location of Fire hydrant & Pipe line	√		
4	Final Location of Septic tank / STP	√		
5	Final Layout Plan with location of RWH unit	√		
6	Final Section / Technical drawing of RWH unit	√		
7	CD with Geo tag of RWH unit with all documents photographs & Video Shooting.	√		



  
**Principal**  
PRINCIPAL  
A. V. COLLEGE OF ARTS  
K. M. COLLEGE OF COMMERCE  
E. S. A. COLLEGE OF SCIENCE  
WASAI ROAD, DIST. PALGHAR-401202.



*Green Care Solutions*  
.....a destination for better environment

Ref. No.: GCS/RWH/015/2017

To,  
The DDTP,  
VVCMC,  
Virar (E), Dist: Palghar.

Date: 29/05/2017

**SUB: Completion Certificate for Rain Water Harvesting System for proposed Art Science Building & Polytechnic Workshop Building S. No. 20, 21 (P), 22 & 23, Village : Navghar, Taluka-Vasai, Dist .: Palghar.**

REF: BP-968/W/1685

We hereby certify that the Rain Water Harvesting System as per our design is completed in above cited building to our satisfaction and as per the guidelines given under TPB-432001/2133/CR-230/01/UD-11, dated 10<sup>th</sup> March, 2005 and in the Notification No.: TPB-4307/396/CR-124/2007/UD-11, dated 6<sup>th</sup> June, 2007 issued by Government of Maharashtra.

The scrutiny sheet in standard format duly signed along with necessary documents, photographs, CD, Google image with latitude & longitude of site under reference is attached herewith for your perusal & ready reference. The completed work may please be accepted.

Thanking you,

Yours Faithfully,

For GREEN CARE SOLUTIONS

MR. SOURABH JAISWAR

Reg. No. : PRWHC-005

C.C. to Architect / L.E.




# Water conservation

Latitude : 19°23'10.00" N  
Longitude : 72°49'46.53" E



Satellite Image With Plot Boundary



  
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VASAI ROAD, DIST. PALGHAR-401202.

# Water conservation

## A. RUN OFF (DISCHARGE) CALCULATION

#	Type of Surface	Catchments Area	Area (Sq. m) (A)	Run off Coefficient (C)	Avg. Rain fall (m/hr)	Discharge (Run off) (Q=CIA) m <sup>3</sup>	Total (m <sup>3</sup> ) Discharge (Q)
1.	RCC	Terrace area	3800	0.90	0.025	$0.9 \times 0.025 \times 3800$	85.5
2.	Paved Block	Pavement area	2700	0.85	0.025	$0.85 \times 0.025 \times 2700$	57.30

## B. VOLUME OF TERRACE WATER

Total Storm Water Flow = 85.5 m<sup>3</sup>/hr

Considering 03 minute of retention time, volume = 4.2 m<sup>3</sup>

Dimension of Ring Well = ( 1 m Ø x 4.5 m depth)

No of provided Ring Well = 2.0

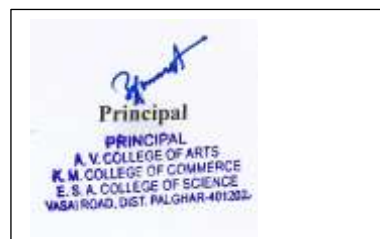
## C. VOLUME OF SURFACE WATER

Total Storm Water Flow = 57.3 m<sup>3</sup>/hr

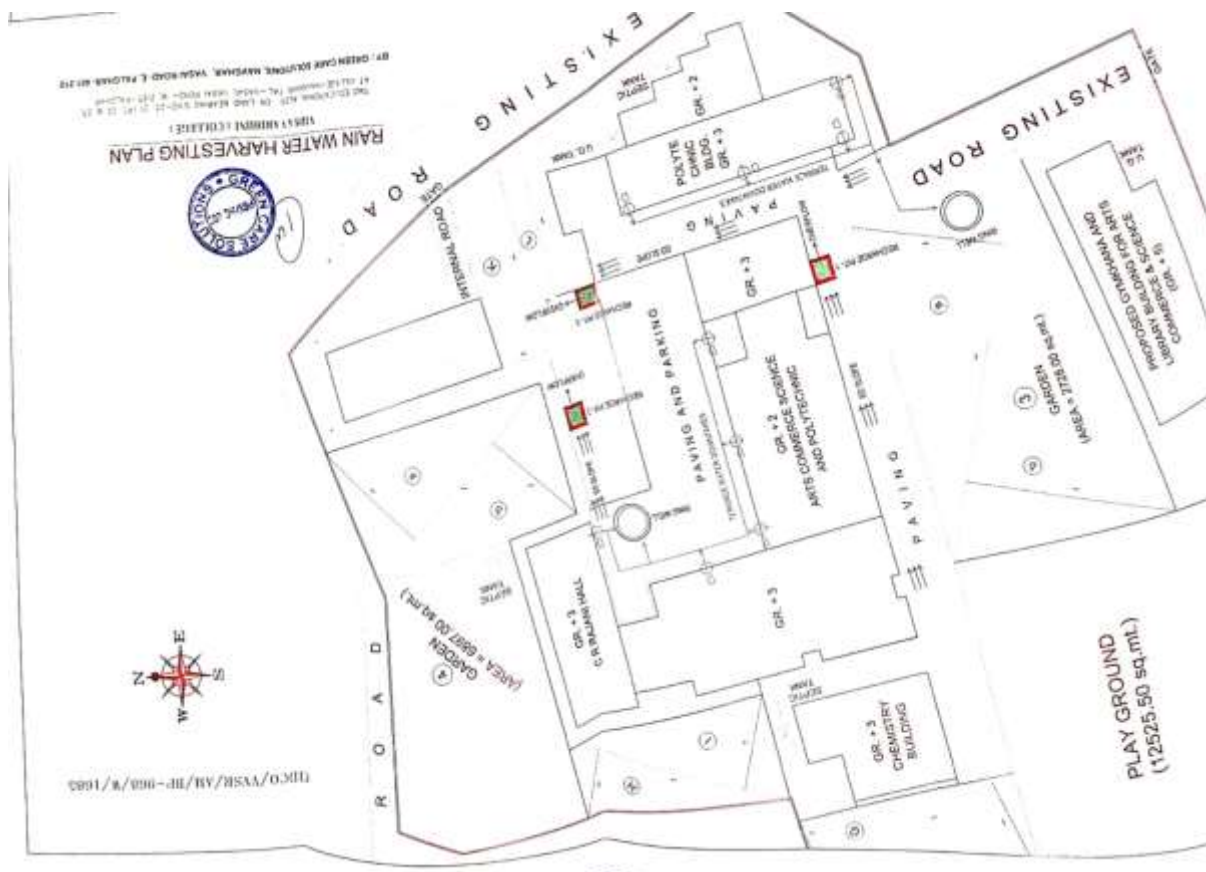
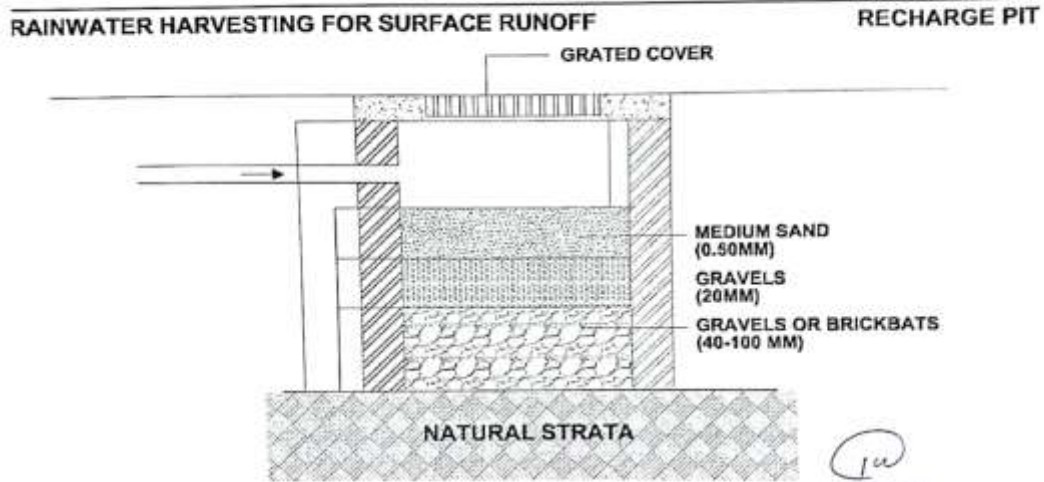
Considering 05 minute of retention time, volume = 4.70 m<sup>3</sup>

No of percolation Pit = 04, Size (1.2 x 1.0 x 1.6) m

Storm water of paved area diverted into percolation Pit for ground water recharge.



# Water conservation



# Water conservation



RING WELL -1



RING WELL WITH FLUSH VALVE CHAMBER



RECHARGE PIT -1



VERTICAL FLUSH VALVE



RING WELL - 2



RECHARGE PIT - 2

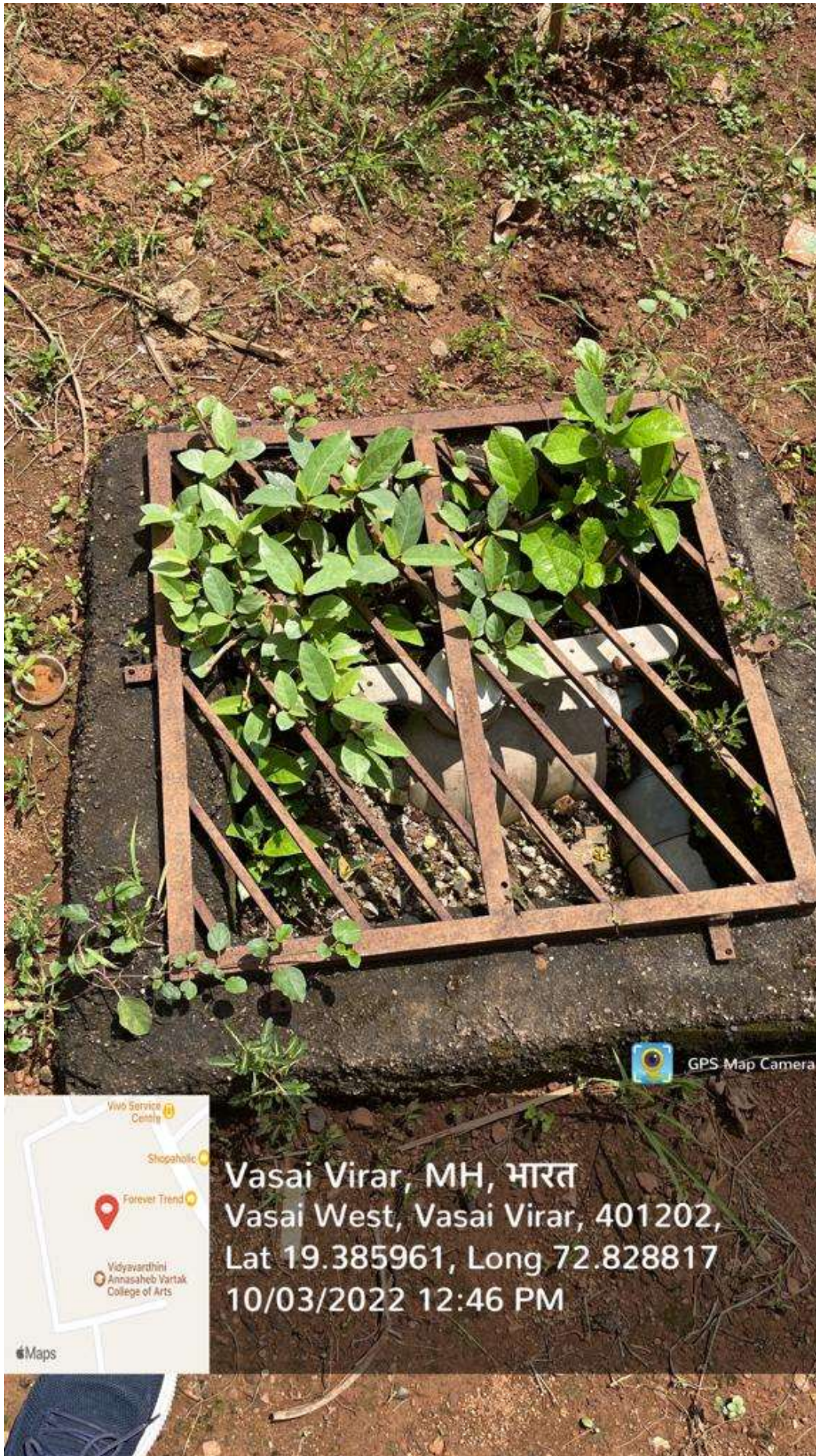
## RAIN WATER HARVESTING SNAPS



Principal  
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E. S. A. COLLEGE OF SCIENCE  
VASAI ROAD, DIST. PALGHAR-401202.

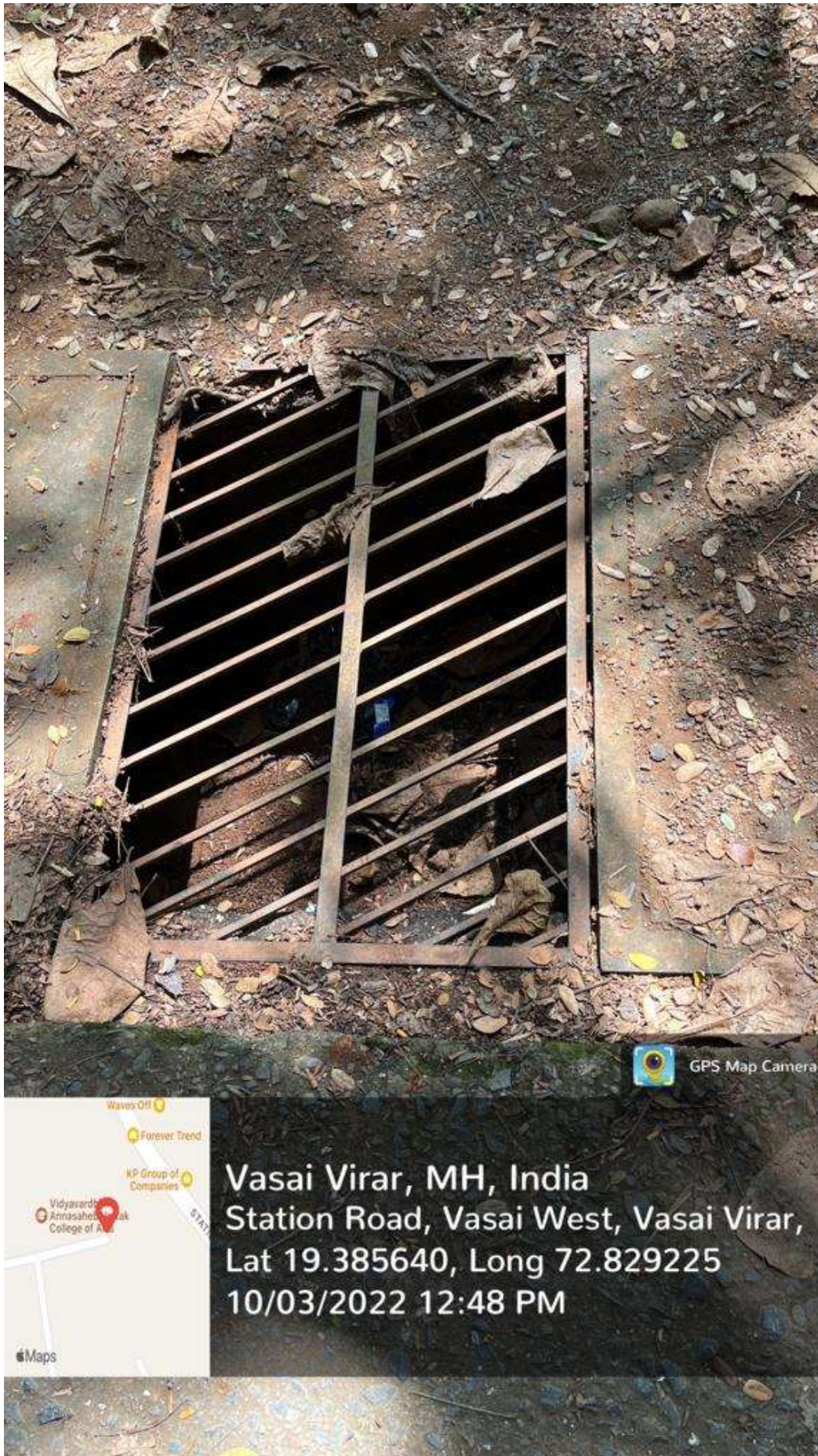


## Water conservation



Recharge Pit 1, Roof water turned to near open well by pipe

## Water conservation



Recharge Pit 2, Roof water turned through pipe for the water percolation in the campus

## Water conservation



Recharge Pit 3, the flow of rainwater turned through pipe for the water percolation in the campus

## Water conservation



Recharge Pit 4, the flow of rainwater turned through pipe near the open well.

  
**Principal**  
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**K. M. COLLEGE OF COMMERCE**  
**E. S. A. COLLEGE OF SCIENCE**  
**VASAI ROAD, DIST. PALGHAR-401202**