



S.E.M.T'S
MOINUDDIN B. HARRIS COLLEGE OF ARTS,
A.E.KALSEKAR COLLEGE OF COMMERCE & MANAGEMENT.
(Affiliated to the University of Mumbai)
NAWAYAT NAGAR, SOPARA (W), VASAI, DIST- PALGHAR
PIN - 401 203, (MAHARASHTRA)

CRITERION VII
INSTRUCTIONAL VALUES
AND BEST PRACTICES

7.1.2 The Institution has facilities and initiatives for

1. Alternate sources of energy and energy conservation measures
2. Management of the various types of degradable and nondegradable waste
3. Water conservation
4. Green campus initiatives
5. Disabled-friendly, barrier free environment

Options

- A. All of the above
- B. Any 3 of the above
- C. Any 2 of the above
- D. Any 1 of the above
- E. None of the above

HEI Input:A 4 or all of the above





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DVV Clarification

7.1.2 1-Supporting documents for justifying the HEI input

1.Alternative Sources of the Energy

Structure of the Solar Panel

2.Management of the Various Types of Degradable & Non-Degradable Waste

Installation of Degradable & Non-degradable Waste Bins

3.Water Conservation

Structure of Water Harvesting in College

4.Green Campus Initiatives

Installation of New Plants in College Campus

5.Disabled Friendly Environment

List of Disabled Students





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1. Alternative Sources of Energy

Structure of Solar Panels

MSS Systems

125 Diamond Industrial Estate, Near Dahisar Check Naka, Dahisar (E), Mum:-400068



Proposal for PV Solar Rooftop Power Plant

M.B Harris College

Nallasopara

Plant Capacity: - 20 kWp

Date:- 29/09/2018

Sohail Shaikh
sohail@mssgreentech.com
9136567074



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Assumptions:

1. Shadow free space is being offered. Cleaning of cutting of trees, vegetation, debris & removal of civil constructions in Owner scope
2. Wind speed considered 170 KMPH
3. Covered area for inverter

Commercial Offer:

Price for design, supply, installation, testing and commissioning

Sr. No	Description	Rate per kWp	Amount
1.	20 kWp without battery backup: Design, Manufacture, Supply of PV Plant & Equipment, installation & commissioning charges. In 355 Wp PV Modules (REC Solar-Made in Singapore) and Inverters by Fronius (Made in Austria)	Rs.53,400/-	Rs.10,68,000/-
2.	Net meter / check meter cost *	-	Rs.22,000/-
3.	Security Deposit *	-	Rs.10,000/-
Total Amount			Rs.11,00,000/-

(Rupees Eleven Lakhs Only)

Note*:- Costs in Specimen no. 2 & 3 are indicative and would be charged 'at actuals' at the time of final billing with prior intimation and supporting bill to the client.

Terms & Conditions: -

- **Transaction:** All transaction shall be done by the client and MSS Systems.
- **Price:** The price quoted in this proposal is inclusive of GST, design, manufacturing, sourcing, testing, supply, installation & commissioning. Any change in scope of work or addition to the bill of materials and/or rating or any variation, whatsoever, shall be charged extra to client.
- MSS Systems shall provide **AMC free of cost for first 2 years** which includes monitoring and maintenance of generation report on quarterly basis, site visits for any troubleshooting and rectification. Whereas weekly cleaning of the plant shall be in the scope of the client and MSS Systems shall train the existing cleaning staff.
- **Delivery:** Ex Works delivery shall be at 12-14 weeks from confirmed order with advance payment, where as net meter installation time line is subject to co-operation and work execution done from MSEB side.

Module mounting structure - Flush Mount racking suitable
to GI profile sheets

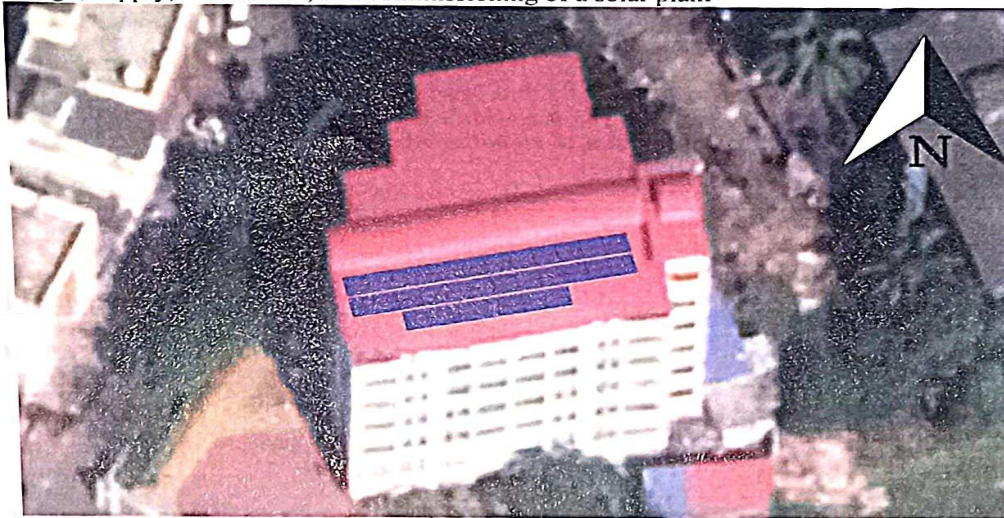


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Technical Details:

Key facts of the power plant

Design, supply, installation, and commissioning of a solar plant



Bill of Materials:

Project type	Grid Connect SPV System		
Project size	DC Side generation: 20 kWp		
Sr. No	Description of Major Supply Item	Total Qty	Units
1	Polycrystalline photo voltaic modules of 355Wp (REC-Solar) made in Singapore	56	nos
2	Grid Interactive Solar Inverter –Fronius (Made in Austria)	1	nos
3	AC and DC Distribution Board	2	nos
4	Electricals (Polycab 4sq.mm Solar cables on DC & Polycab 4sq.mm 4 core cable on AC side)	2	set
5	Earthing kit	1	Set
6	Module mounting structure –Flush Mount racking, suitable for GI profile sheets	1	set



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Exclusions	Computer, internet connectivity and related hardware
	Water and power availability for execution of work
	Rooftop acquisition and titles, storage space for materials till the execution of the work shall in the scope of the client.
	Any licensing with local authorities, state government or central government officials related to the solar power plant. Security Deposit to be paid at the time of application registration of solar net meter connection is in the scope of the client.

TERMS AND CONDITIONS:-

- 1. PAYMENT TERMS: 10 % advance** with purchase order,
50 %after installation of mounting structure & initiation of net meter work,
30 % On delivery and installation PV of modules on site
10 % On Commissioning of the plant.
- 2. INSPECTION / CLEARANCE CHARGES FROM GOVERNMENT:** If any (other than net meter), to buyers account. Technical support shall be given by MSS Systems.
- 3. VALIDITY OF THE PROPOSAL:** 30 days from date of offer
- 4. WARRANTY:-**
For PV Panels:
10 Years Product Warranty.
25 years of linear performance guarantee:-
10 years for 90% efficiency,
25 years for 80% efficiency
For Inverter:
7 years warranty extendable upto 15 years at cost.



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GENERAL TERMS AND CONDITIONS:-

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2. **INTERRUPTIONS IN WORK:** The Customer must not interrupt the work, and/or shall abstain from any act or omission of which it can reasonably be expected that it may delay the work or make the works more difficult and or expensive for MSS Systems.
3. **DEEMED EXPORT OF POWER:** The Project shall be termed as commissioned when MSS Systems evacuates the power generated to Customer grid. However, in case where MSS Systems has completed its duties as per the scope of duties mentioned in the purchase Order, and the Project cannot be commissioned due to any act/inaction on the part of Customer, or due to unavailability of Customer grid, then the Project shall be deemed to be commissioned and MSS Systems shall be deemed to have completed its part of obligations under the Purchase Order.
4. **CIVIL & STRUCTURAL WORK:** MSS Systems limits itself to providing civil foundation and structures for its module mounting. Customer shall allow scrapping of the roof for bonding the civil foundation if any.
5. **PERMISSIONS:** Permissions required for the Erection of the Elevated Structural Should be taken in advance by the client itself.
6. **INDEMNIFICATION:** Customer shall fully Indemnify and hold harmless MSS Systems and its affiliates, associates, directors and employees from and against, any and all losses, costs, damages, injuries, liabilities, claims and causes of action, including without limitation arising out of or resulting from claims by third parties, acts, omissions or breach of any of Customer's obligations under this Proposal or any resultant Agreement or otherwise arising out of the solar power system or its usages.
7. **INSURANCE:** For the offered supplies and services, MSS Systems shall cover insurance for marine-cum-storage-cum-erection through appropriation all risk policy for all offered item till commissioning. On commissioning of the solar power plant, suitable asset insurance will have to be arranged by Customer at its own cost since the asset is in the name the customer.
8. **FORCE MAJEURE:** Force majeure shall mean any cause, existing or future, which is beyond the reasonable control of MSS Systems including to, acts of God, storm, fire, floods, explosion, epidemics, quarantine, earthquake, strike, riot, lock out, embargo, interference by civil or military authorities, acts, regulations or orders of any governmental authority in their sovereign capacity, act of war [declared or undeclared] including any acts of terrorism, and all other such acts of similar or analogous nature
 - [where all such acts to be collectively referred to as "**Force Majeure**"] MSS Systems shall not be liable for the failure to perform any obligation in terms of this Proposal if and



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4. **WARRANTY:-**
For PV Panels:
10 Years Product Warranty.
25 years of linear performance guarantee:-
10 years for 90% efficiency,
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For Inverter:
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• [where all such acts to be collectively referred to as "Force Majeure"] MSS Systems shall not be liable for the failure to perform any obligation in terms of this Proposal if and





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to such extent such failure is caused by a Force Majeure, Provided that none of such acts of Force Majeure will relieve the Customer from meeting its payment obligations.

The periods for performance as agreed upon shall be extended by the periods of delay caused by such Force Majeure, as long as the period of Force Majeure does not last longer than three (3) month. If a Force Majeure continues for more than three (3) month and the parties are not able to reach agreement on the continuation of work within a further term of one (1) month, the fulfillment of obligation of MSS Systems shall automatically be deemed impossible and shall stand suspended.

Upon such suspension, MSS Systems shall be entitled to be paid the following amounts: (a) all the amounts payable for the works completed until the date of suspension; (b) the cost of materials which have been delivered to Customer, or of which Contractor is liable to accept delivery, (c) any other cost or liability, including unamortized cost of materials, which in the circumstances was reasonably by MSS Systems in the expectation of completion of the works; (d) demobilization costs of Contractor Personnel and equipment; and (e) all other costs incurred by MSS Systems on account of suspension of order on such other suppliers.

Warm Regards,

M.S.S SYSTEMS
125, Diamond Industrial Estate,
Near Near Dahisar Check Naka
Dahisar (E), Mumbai:- 400 068
www.mssgreentech.com

M.S Shaikh
Managing Partner
9136567074





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MSS Systems

Turnkey solutions in rooftop solar power plants

RECEIPT

Date: - 5th February, 2019.

1] M/s. MSS SYSTEMS

AND

2] M/s. SHURPARAKA EDUCATIONAL MEDICAL TRUST

Subject: - Part payment towards installation of 20 kWp on-grid PV Solar Power Plant at M B Harris College.

Received from M/s. Shurparaka Educational Medical Trust a sum Rs. 5,50,000/- (Rupees Five Lakh Fifty Thousand Only) vide cheque No.101465 dated 5th February 2019 of Bassein Catholic Co-Op Bank, Nallasopara (W) branch as part payment towards installation of 20 kWp on-grid Solar Power Plant at M B Harris College, Nallasopara (W).

I Confirm,

We Say Received.

M/s.SHURPARAKA EDUCATIONAL MEDICAL TRUST


M/s. MSS SYSTEMS



125, Diamond Industrial Estate, Near Dahisar Check Naka, Dahisar (E), Mumbai:-400 068

Phone:- 9136567074 www.mssgreentech.com GST No.27BTQPP9435E1Z3





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MSS Systems

Turnkey solutions in rooftop solar power plants

RECEIPT

Date: - 24th November, 2018.

1] M/s. MSS SYSTEMS

AND

2] M/s. SHURPARAKA EDUCATIONAL MEDICAL TRUST


Subject: - Part payment towards installation of 20 kWp on-grid PV Solar Power Plant at M B Harris College.

Received from M/s. Shurparaka Educational Medical Trust a sum Rs. 3,30,000/- (Rupees Three Lakh Thirty Thousand Only) vide cheque no.101442 dated 24th November 2018 of Bassein Catholic Co-Op Bank, Nallasopara (W) branch as part payment towards installation of 20 kWp on-grid Solar Power Plant at M B Harris College, Nallasopara (W).

I Confirm,

We Say Received.

M/s.SHURPARAKA EDUCATIONAL MEDICAL TRUST


M/s. MSS SYSTEMS



125, Diamond Industrial Estate, Near Dahisar Check Naka, Dahisar (E), Mumbai:-400 068

Phone:- 9136567074 www.mssgreentech.com GST No.27BTQPP9435E1Z3





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MSS Systems

Turnkey solutions in rooftop solar power plants

Date: - 29th October, 2018.

To,

Managing Committee
Shurparaka Educational & Medical Trust,
Sopara (W)
Palghar: - 401 203.

Subject: - Update on work progress for 20 kWp solar power plant installation at M B Harris College, Sopara.

Greetings,

We are pleased to bring to your notice that as per the purchase order terms and conditions for 20 kWp solar power plant installation at M B Harris College, Sopara, we have successfully delivered and erected the mounting structures on site, and also initiated the net meter procedures beginning with Load extension with MSEB. The officers in-charge are due to visit the site by first week of Nov-18.

We request you to kindly imbuse the 2nd payment of Rs.5,50,000/- (Rupees Five Lakhs Fifty Thousand Only) to us for delivery and installation of PV modules on site.

Best Regards,




Muhammad Sohail Shaikh,
Managing Partner
MSS Systems

125, Diamond Industrial Estate, Near Dahisar Check Naka, Dahisar (E), Mumbai:-400 068

Phone:- 9136567074 www.mssgreentech.com





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2. Management of the Various Types of Degradable & Non-Degradable Waste

Degradable and Non-Degradable Waste Bins





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3. Water Conservation

Structure of Rain Water Harvesting

**SEMT'S
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A.E.KALSEKAR COLLEGE OF
COMMERCE & MGT.**

NAWAYAT NAGAR , NALLASOPARA(W)

RAIN WATER HARVESTING





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N. S. & Associates

CONSULTANTS : RAIN WATER HARVESTING & WATER PURIFICATION SYSTEM

Head Office : 9, Matru Chhaya, Nanda Patkar Road, Vile Parle (E), Mumbai - 400 057. Telefax : 022-2613 1122, Mob : +91 98673 44735
Contact : Admin - +91 99877 58735 / Accounts : +91 99878 92517
Pune Branch Office : A-5, Sai Sadan, Sant Nagar, Arnyeshwar, Pune - 411009. Mob: +91 77388 86230
Email : ns.associates2008@gmail.com, ns.associates@yahoo.co.in, Website : www.nsassociates.co.in

COMPLETION CERTIFICATE

Date: 21.09.2015

To,
Shurparaka Educational & Medical Trust,
Nallasopara - West,
Tal- Vasai, Dist. Palghar

Sub: Certificate For Completion Of Implementation Of Rooftop & Surface Rainwater Harvesting System Proposed Educational Building on S. No.3, H. No. 2 at Village- Sopara, Taluka -Vasai, Dist-Palghar For Nursary School.

Ref: Our Appointment as a consultant for Rain Water Harvesting in the panel by Vasai- Virar' City Municipal Corporation vide Registration No. PRWHC-004.

Dear Sir,

This is to certify that Rooftop & Surface Rain Water Harvesting system, designed and supervised by us for Proposed Educational Building on S. No.3, H. No. 2 at Village- Sopara, Taluka - Vasai, Dist-Palghar For Nursary School.

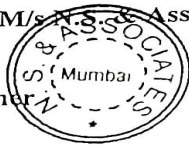
Above site has been completed to our satisfaction fulfilling criteria as mentioned in directions given under TPB-432001/2133/CR-230/01/UD-11 dated 10th March 2005 and in the notification No.TPB-4307/396/CR-124/2007/UD-11 dated 6th June 2007 issued by Government of Maharashtra Urban Development.

Thanking You.

Yours truly,

For, M/s N.S. & Associate

Partner



B. M. SARAIYA





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N. S. & Associates

CONSULTANTS : RAIN WATER HARVESTING & WATER PURIFICATION SYSTEM

Head Office : 9, Matru Chhaya, Nanda Patkar Road, Vile Parle (E), Mumbai - 400 057. Telefax : 022-2613 1122, M : 98673 44735, 98212 04735
Email : ns.associates@yahoo.co.in, info@nsassociates.co.in. Website : www.waterharvestingindia.com,

Pune Office : Mr. Jayant Shrotri, A-5, Sai Sadan, Sant Nagar, Arnyeshwar, Pune - 411 009. Mob.: 98225 97132

Date: 19/02/2015

RAINWATER HARVESTING REPORT

- A. **Client Name:** M/s. SHURPARAKA EDUCATIONAL & MEDICAL TRUST
- B. **Architect:** Mr. Sanat Mehta
- C. **Site Details:** Proposed Educational Building on S. No.3, H. No. 2 at
Village- Sopara, Taluka -Vasai, Dist-Palghar For Nursery School.
- D. **The system comprise of:**
- (i) Rooftop Rainwater Harvesting
 - (ii) Surface Rainwater Harvesting

E. **Rainwater Harvesting Scheme:**

We have carried out a preliminary survey of the entire layout in order to propose and implement the Rooftop and Surface Rain Water Harvesting system (RWH).





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34) £

(E1) Plot details:

<u>Sr. No.</u>	<u>Description</u>	<u>Units</u>
1.	Plot Area	
2.	Terrace Area	1722.99 Sq. M
3.	Surface Area	721.86 Sq. M
4.	Garden Area	917.41 Sq. M
		83.72 Sq. M (1:5)

(E2) Total Rainfall Harvesting Potential, as per Meteorological Dept. Data, Mumbai considering 0.035mt. Rainfall/day.

<u>Sr. No.</u>	<u>Description</u>	<u>Units</u>
1.	Per day Runoff generated from Rooftop Area.	24.00 Cu. Mt.
2.	Per day Runoff generated from Surface Area around building.	25.68 Cu. Mt.
3.	Per day Runoff generated from Garden Area.	0.87 Cu. Mt.

(E3) Total Rainwater Harvesting Potential:

<u>PLOT DETAILS</u>	<u>IN SQ.MT.</u>	<u>RAINFALL IN (MTR.)</u>	<u>RUNOFF CO-EFFICIENT</u>	<u>POTENTIAL (CU.MTR.)</u>
TERRACE AREA	721.86	2.5	0.95	1714.41
Paved Area	917.41	2.5	0.80	1834.82
Garden Area	83.72	2.5	0.30	62.79
		TOTAL RAIN WATER HARVESTING POTENTIAL		3612.02
		3612020 LTR / YEAR		
		45150.25 LTR / DAY		
			CONSIDERING 80 RAINY DAYS	





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E4) As Per Soil Report Provided by M/s. Geostruct Consultants
Conducted on 21th February, 2008.

- i. 0.00 to 1.25 meter, Filling Materials.
- ii. 1.25 to 3.50 meters, Greyish Clay Fine Sand.
- iii. 3.50 to 7.50 meters, Greyish Marine Clay.
- iv. 7.50 to 10.50 meters, Yellowish Stiff Clay With Concrete.
- v. 10.50 to 10.75 meters, Highly Weathered Rock With Murrum.
- vi. 10.75 to 13.25 meters, Brownish Weathered Basalt.
- vii. 13.25 to 20.00 meters, Greyish / Brownish Fracture Basalts.

(E5) Planning for Rooftop Rainwater Harvesting System

- i. Proposed Rainwater Harvesting unit with Existing well.
- ii. Proposed one Rainwater Harvesting unit where all the terrace water will be diverted through NP2/ PVC pipes. As per planning first the water will be passed through First Flush chamber, Filtration Chamber and then transferred to Existing well.
- iii. There is a provision to drain off excess rainwater during heavy rain fall to storm water drain through overflow pipes.
- iv. Size of Rooftop Rainwater Harvesting Unit (RWH): 1 Units
 - 1) Existing Well : 1.25 Mt. Dia.
 - 2) Filtration Chamber : 0.9 Mt x 0.9 Mt x 1.5 Mt Depth.
 - 3) First Flush Chamber : 0.9 Mt x 0.6 Mt x 1.0 Mt Depth.

(E6) Planning for Surface Runoff Rainwater Harvesting System

- i. Proposed Percolation Pit .
- ii. Surface runoff water will be diverted from SWD to rainwater harvesting unit. The surface rainwater will transferred to Percolation Pit with through gravitational force.
- iii. Size of Surface Rainwater Harvesting Unit (RWH) :2 Units
 1. Percolation Pit : 1.8 Mt x 0.9 Mt x 2.5 Mt Depth

NOTE:

- i. Water from Rainwater harvesting unit can be used only for secondary purpose and not for cooking and drinking purpose.
- ii. Water for Rooftop harvesting unit to be collected from only terrace rainwater duntakes.

For, M/s N. S. & Associates

Authorized Signatory



N.S. & Associates

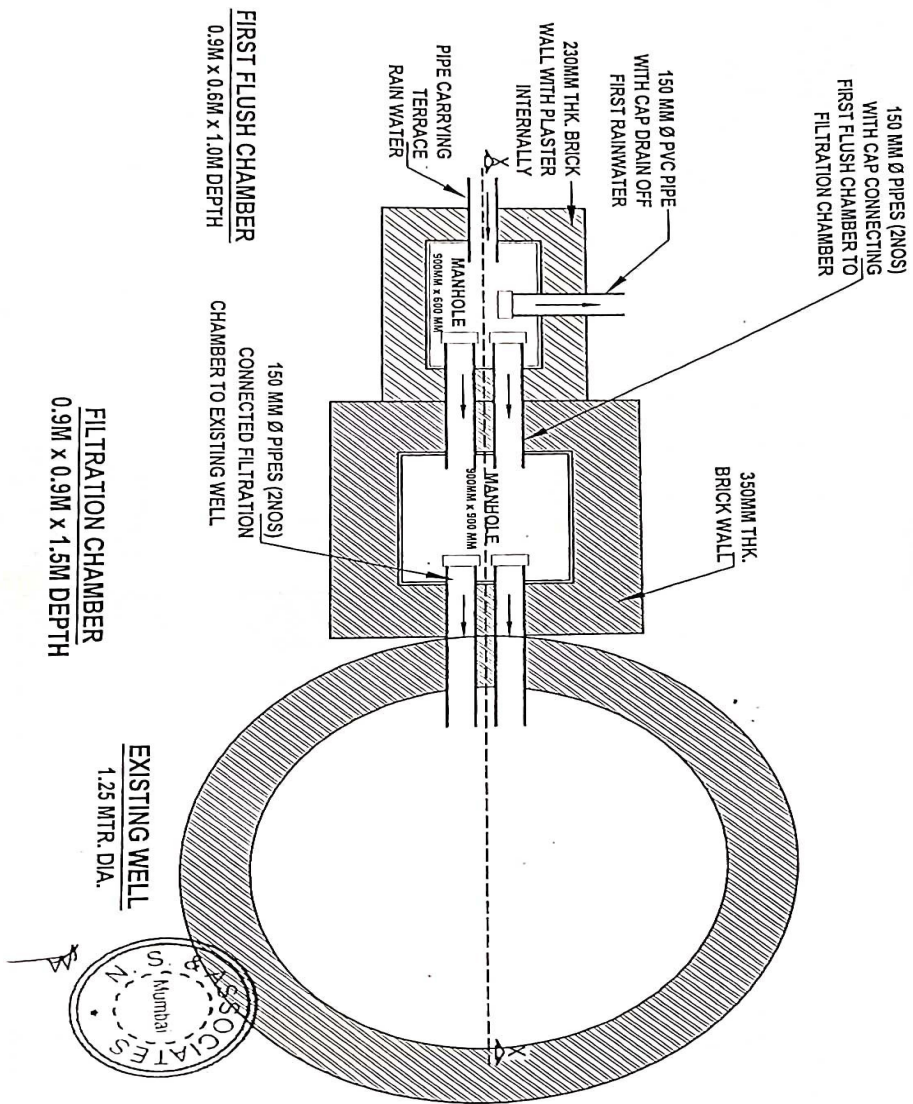


B. M. SARAIYA



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	PROJECT FOR: M. SIVURAKA EDUCATIONAL A MEDICAL TRUST	DESIGN BY: B.M. SARAIYA	CHECKED BY: NINAY SARAIYA	DESIGN NAME: FILTRATION



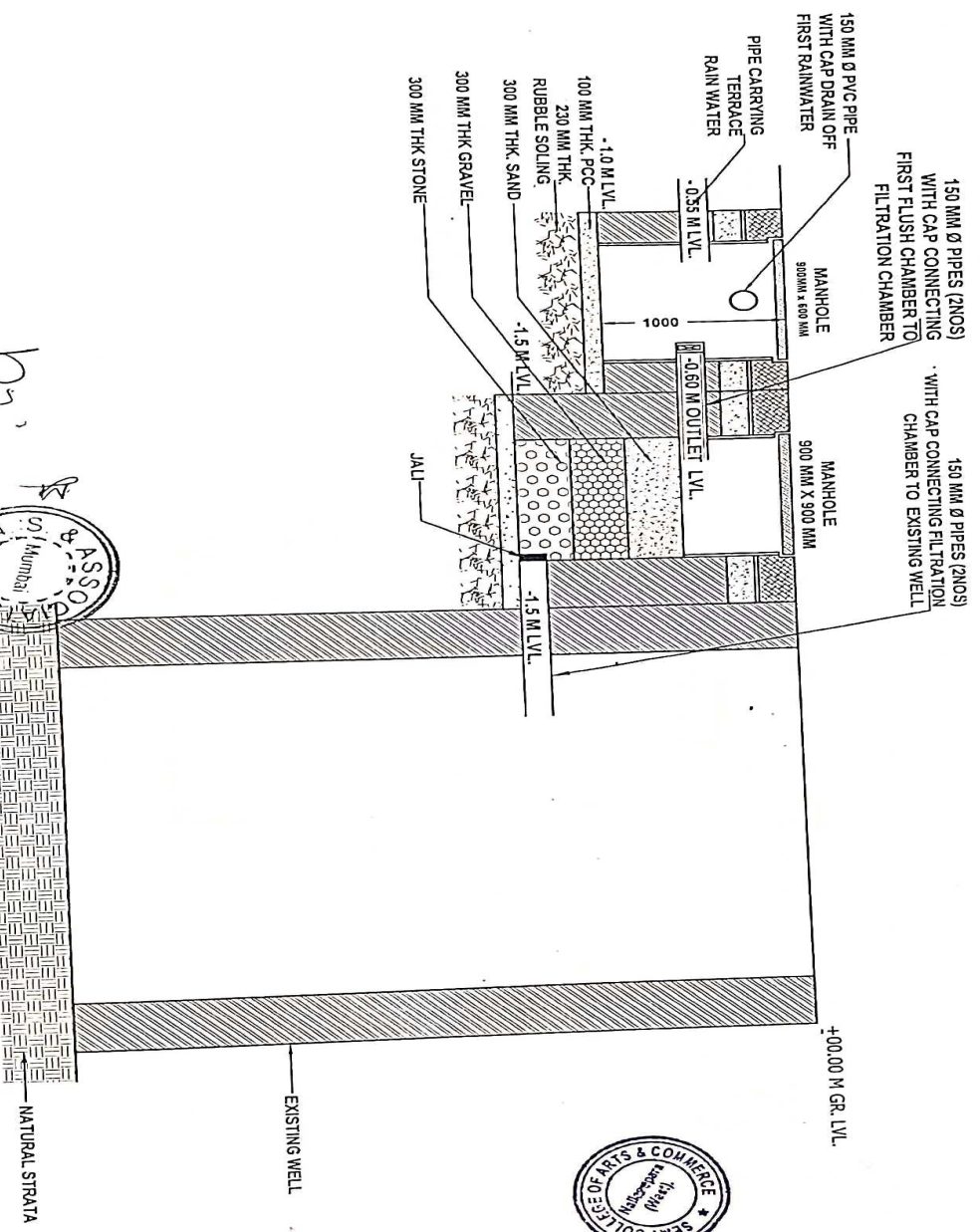


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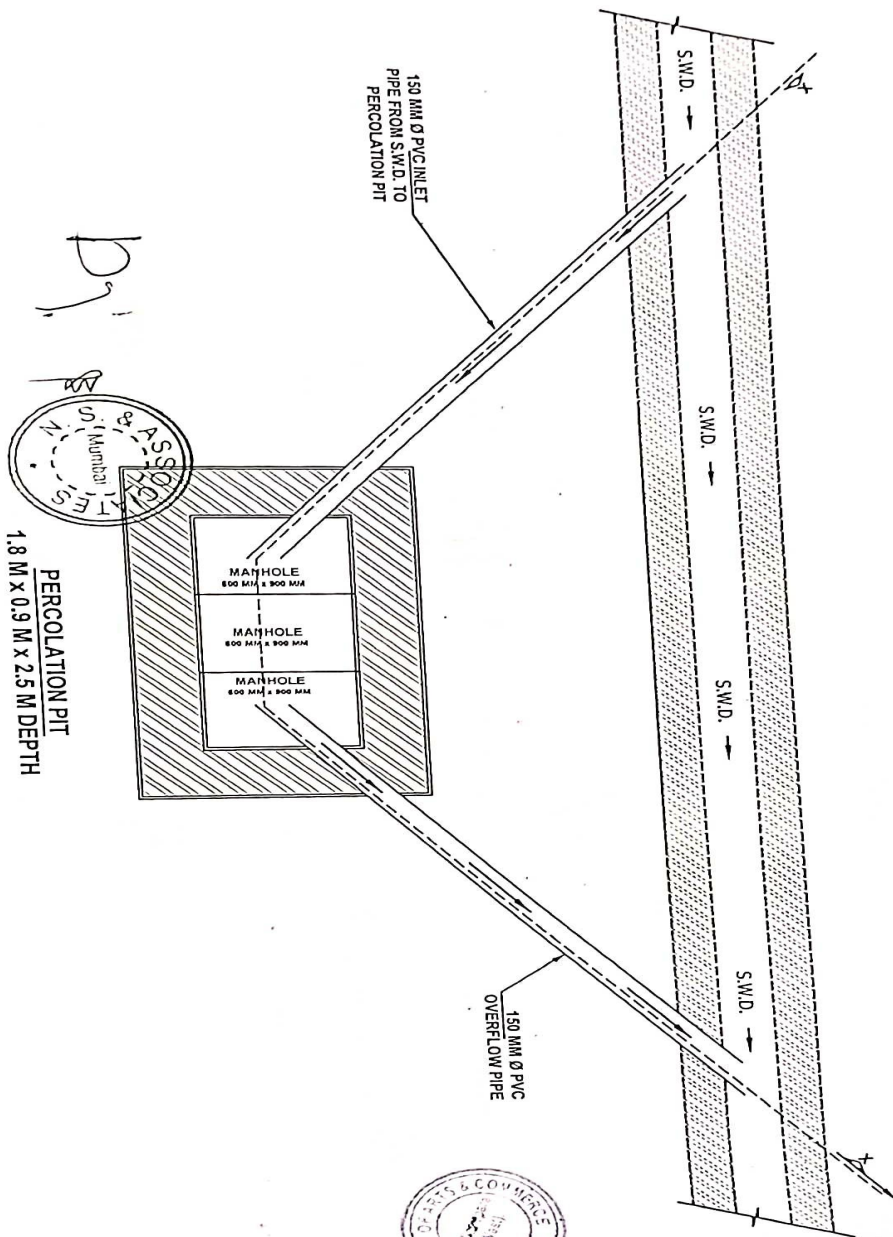
N. S. & ASSOCIATES
 9, LAFRANCE ROAD, VASAI (W), DIST. PALGHAR, MUMBAI - 401 203
 Email: nsassociates@rediffmail.com
 Tel: 022-25312222
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 DESIGNED BY: B.M. SARAIYA
 CHECKED BY: B.M. SARAIYA
 DESIGN DATE:



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 11, SHREEBARK EDUCATIONAL
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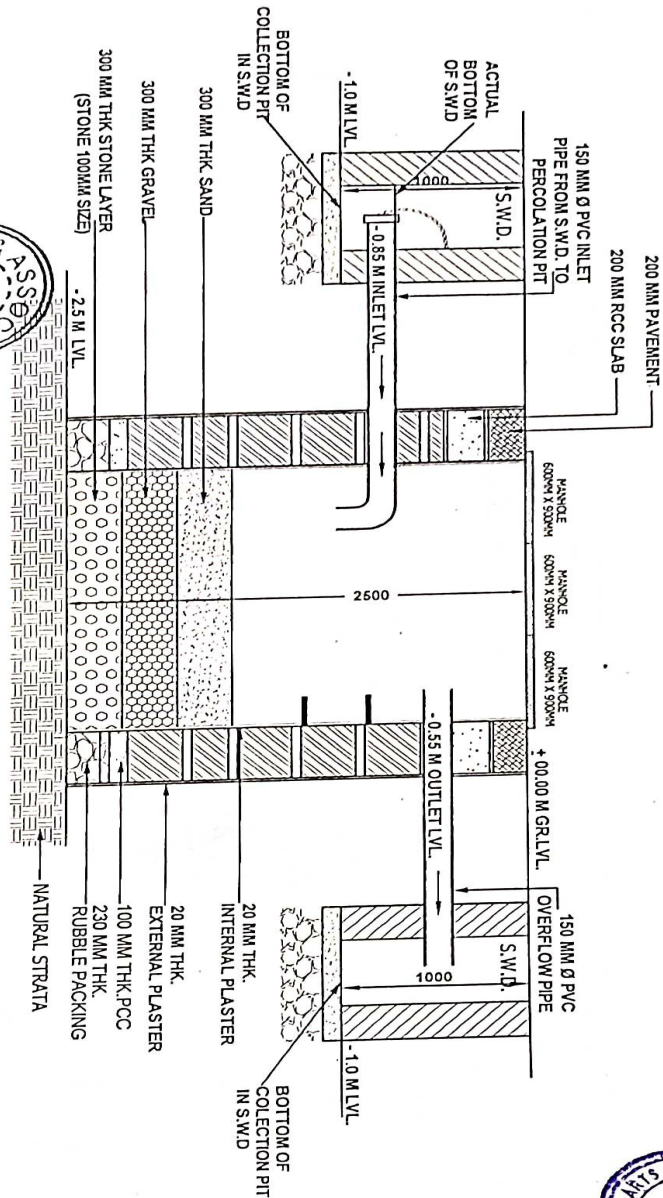
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 DESIGN BY: **B. M. SARAIYA**
 CHECKED BY: **NIRAV SARAIYA**
 DRAWN BY: **SOGAR**
 DATE: **18/02/2012**
 SECTION FOR SURFACE RAIN WATER DRAINAGE

8 MATRU CHHARA NAROD PATEL ROAD
 VILE PARLE (E) MUMBAI - 400 012
 EMAIL: nsassociates@yahoo.co.in

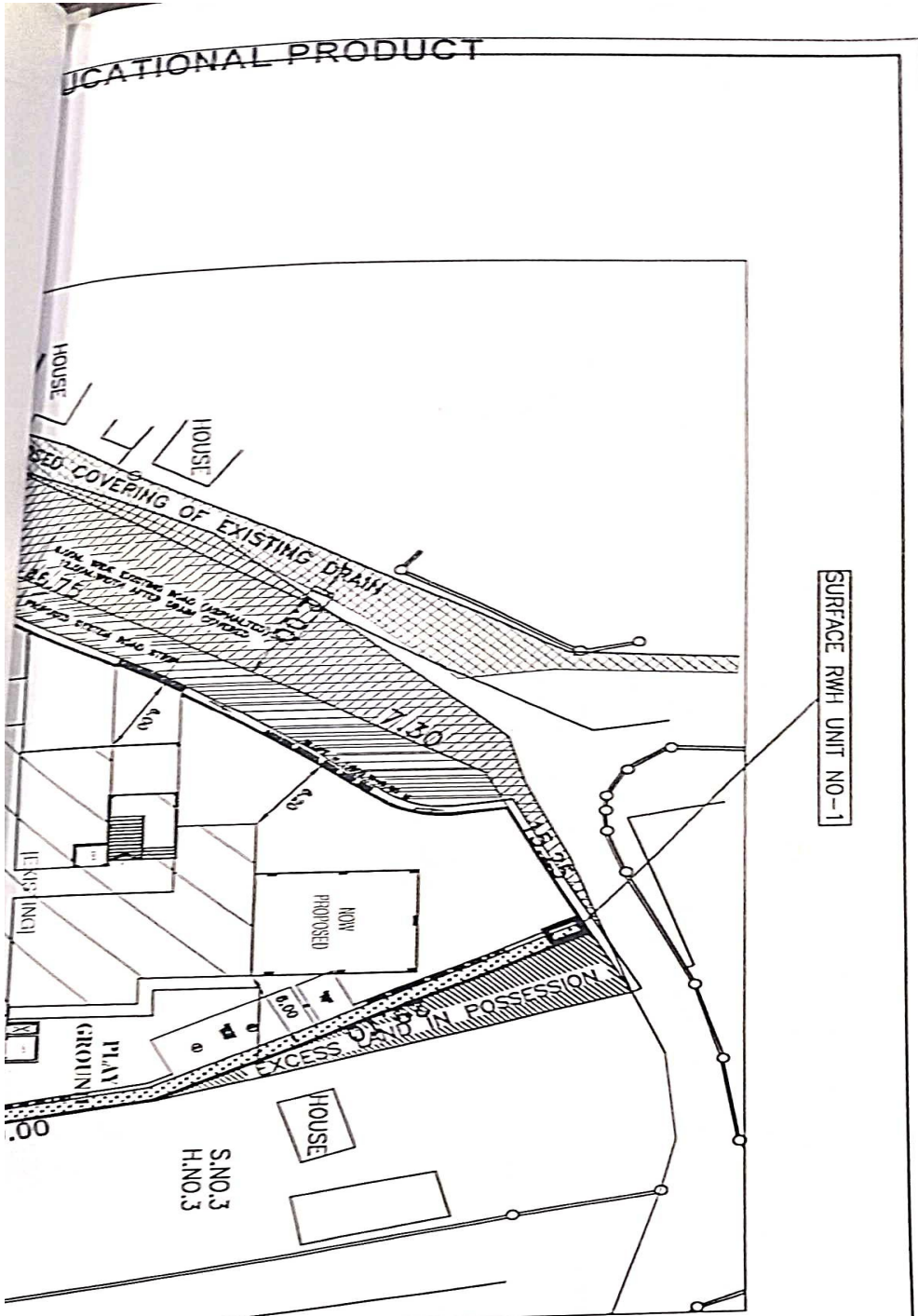


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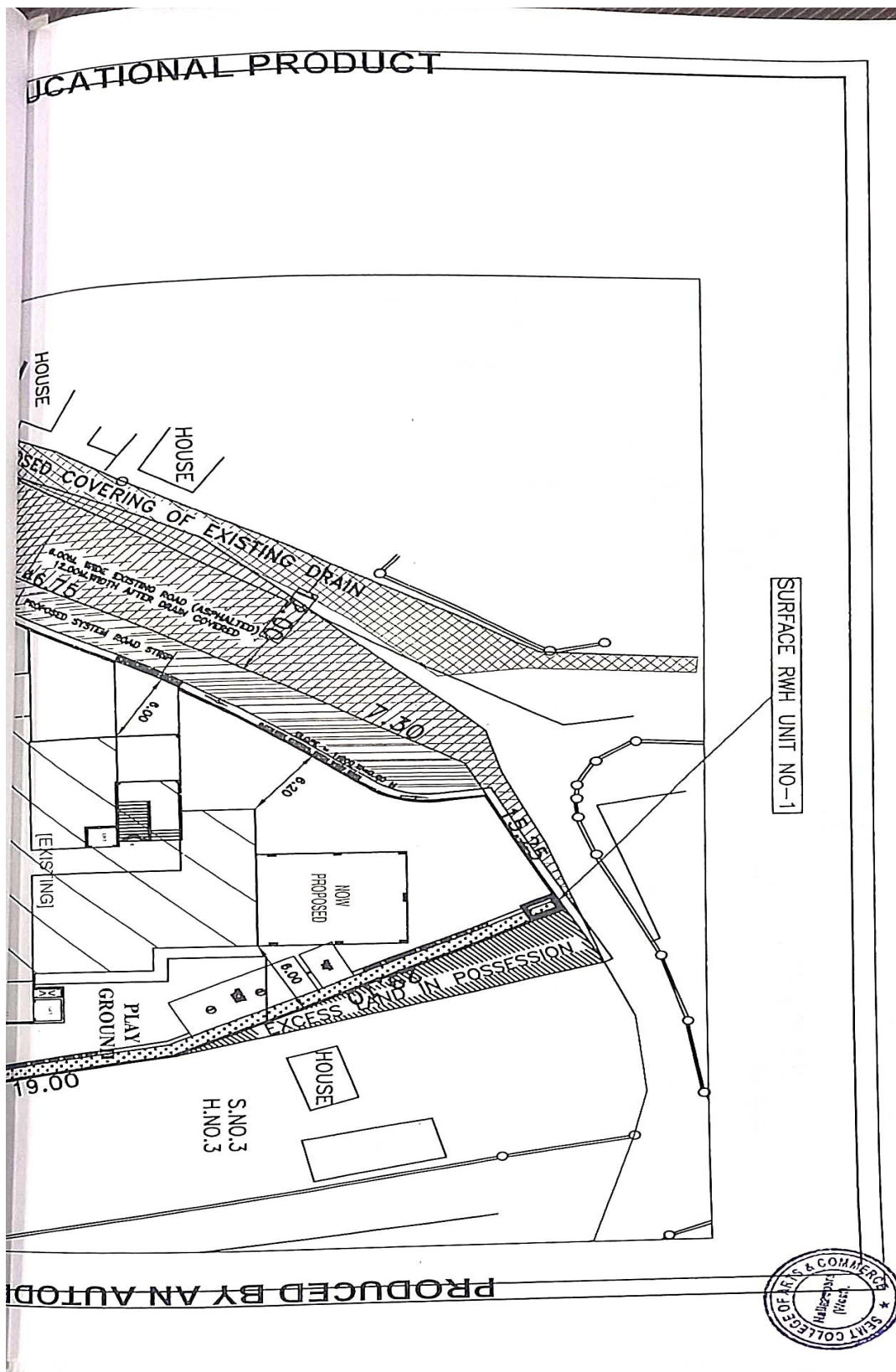
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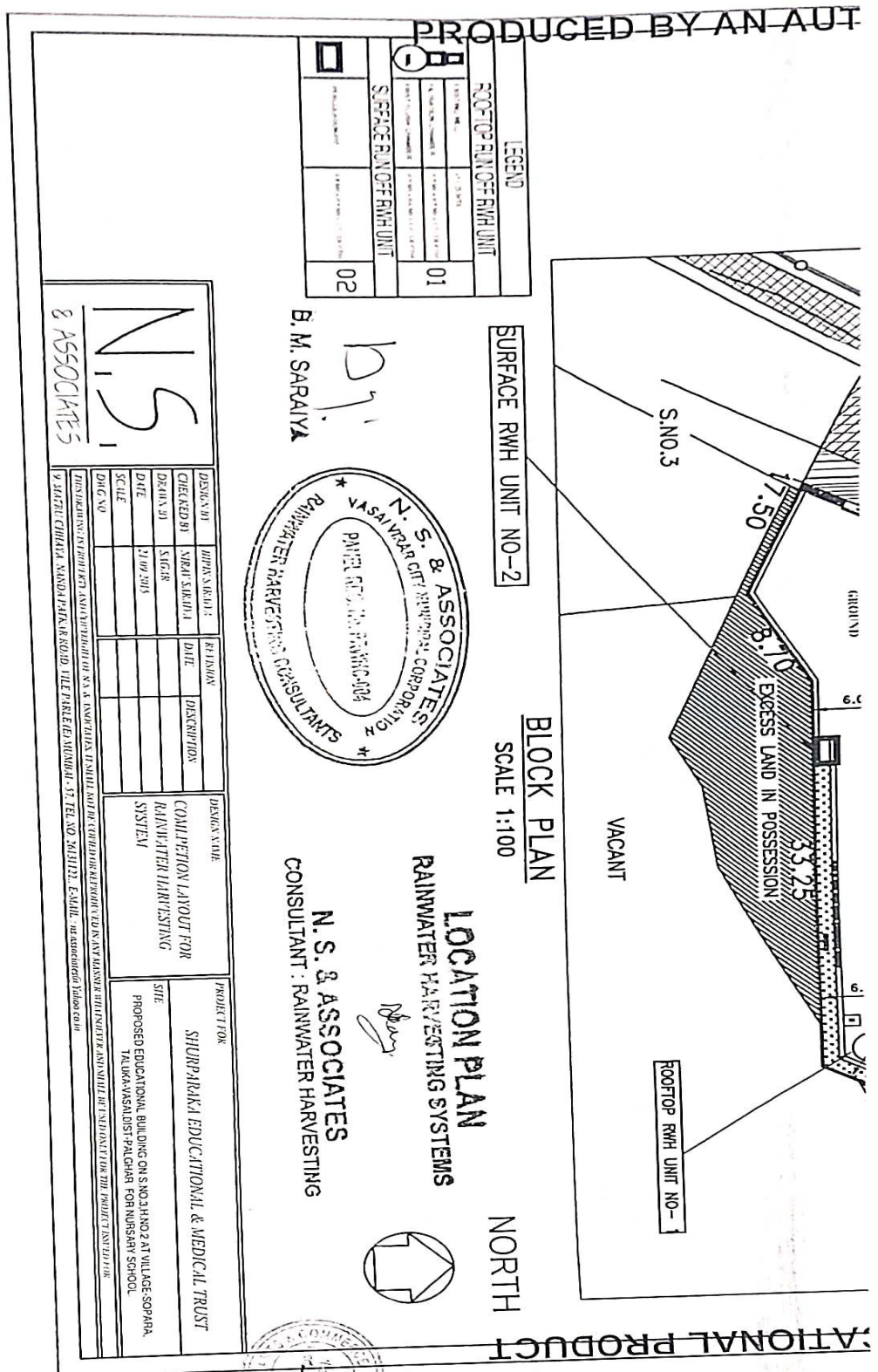
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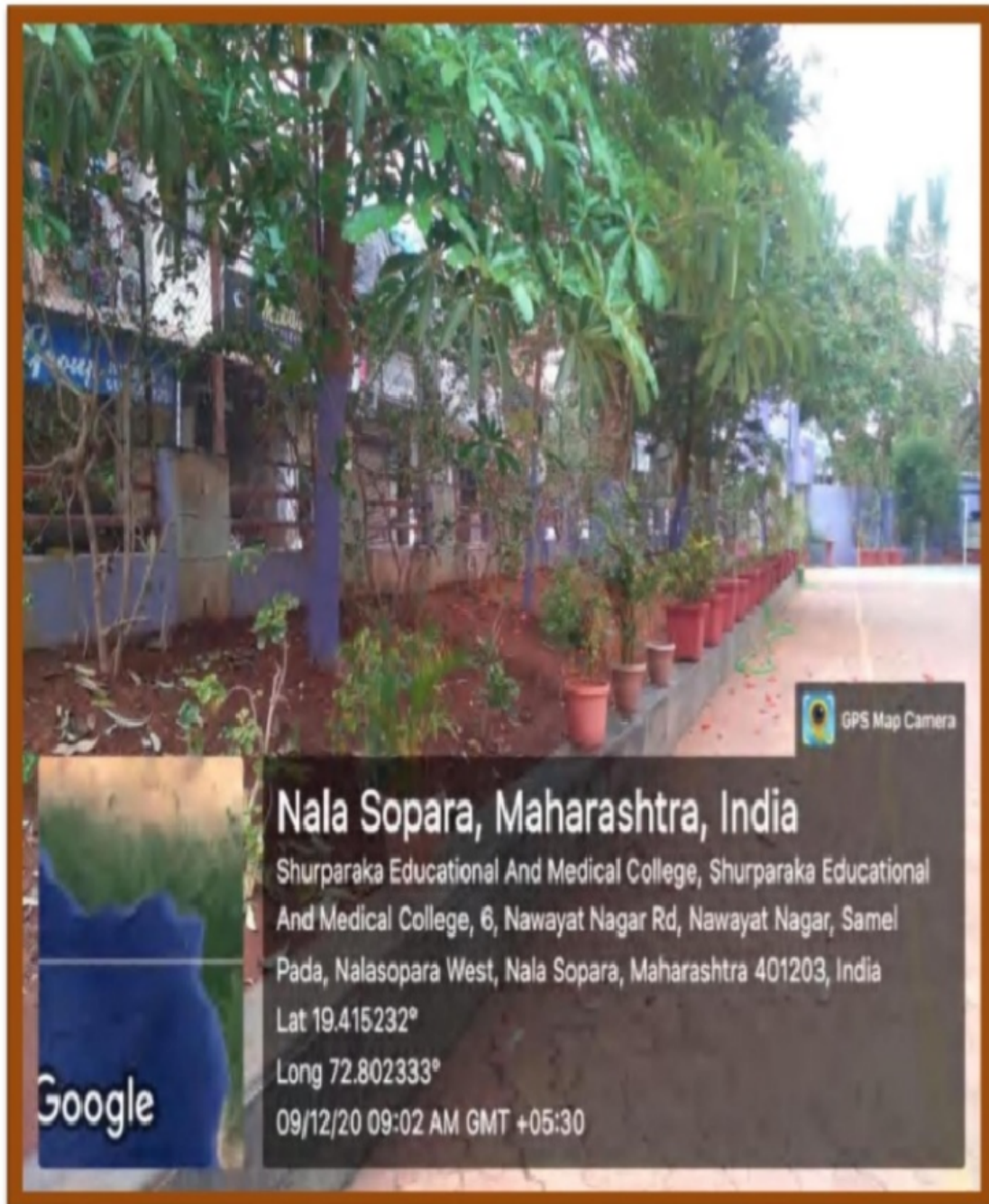




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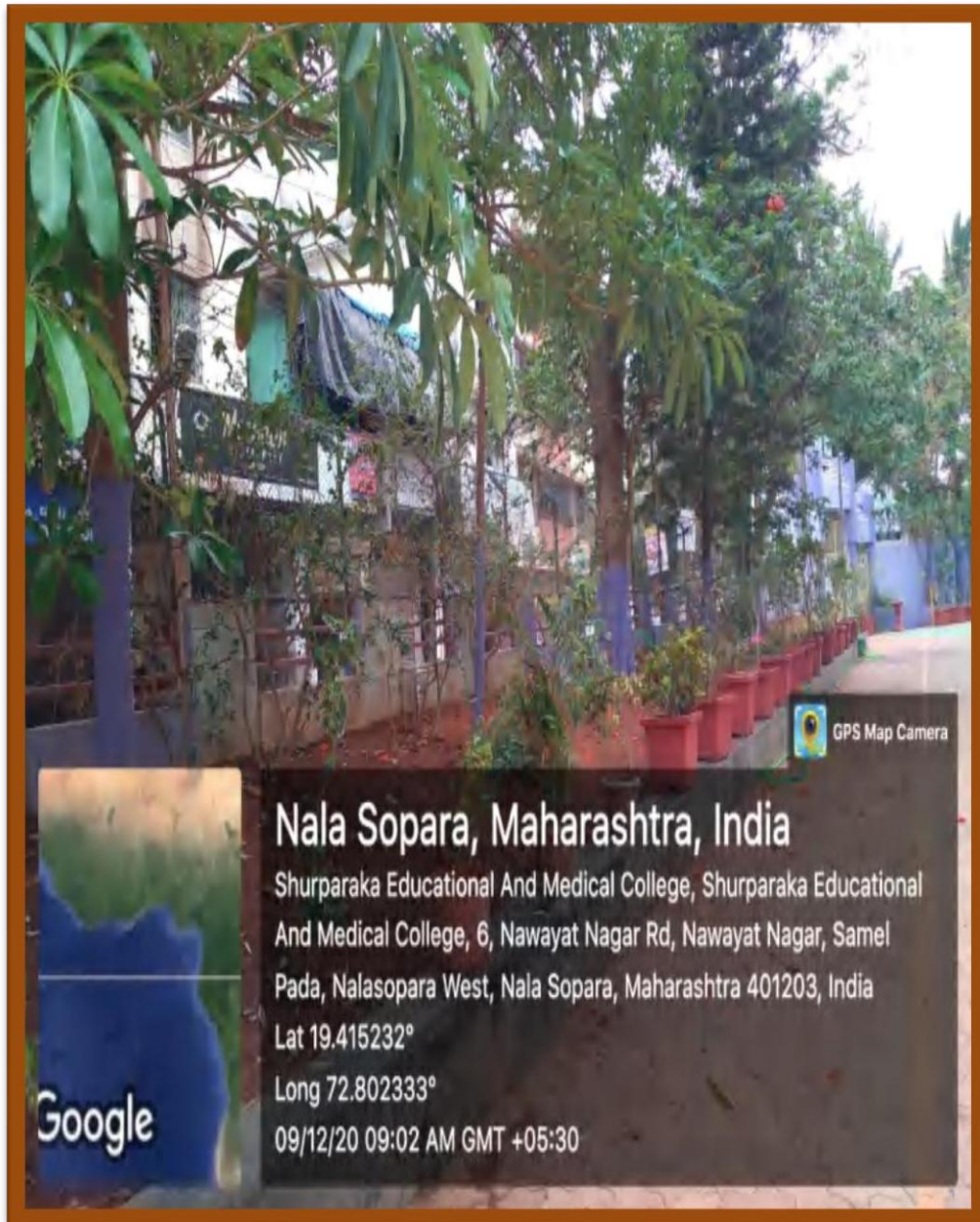
4.Green Campus Initiatives

Installation of New Plants in Campus



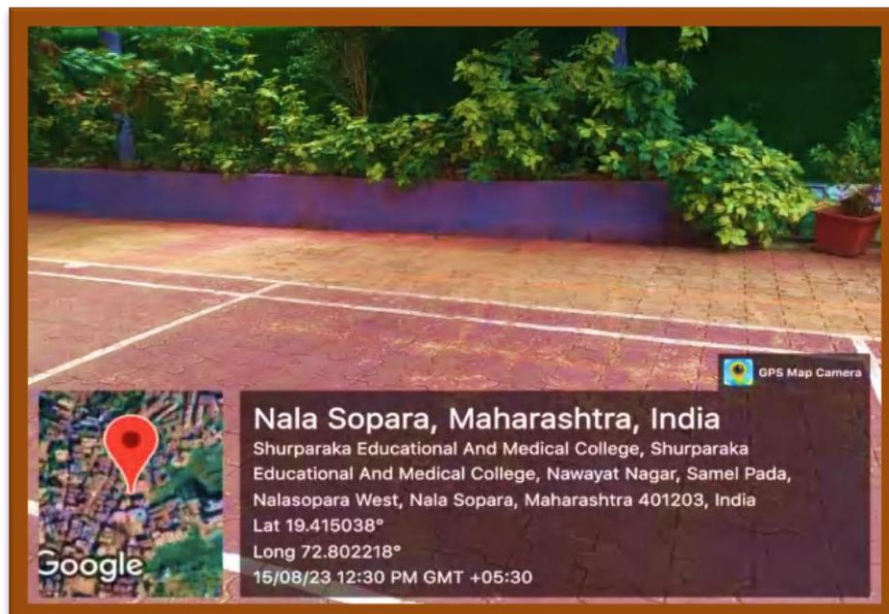
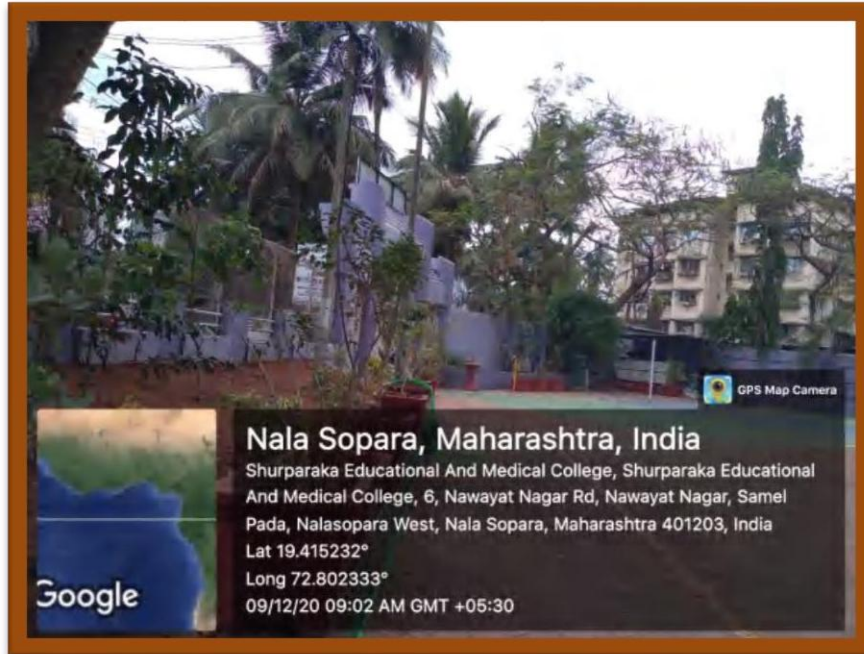


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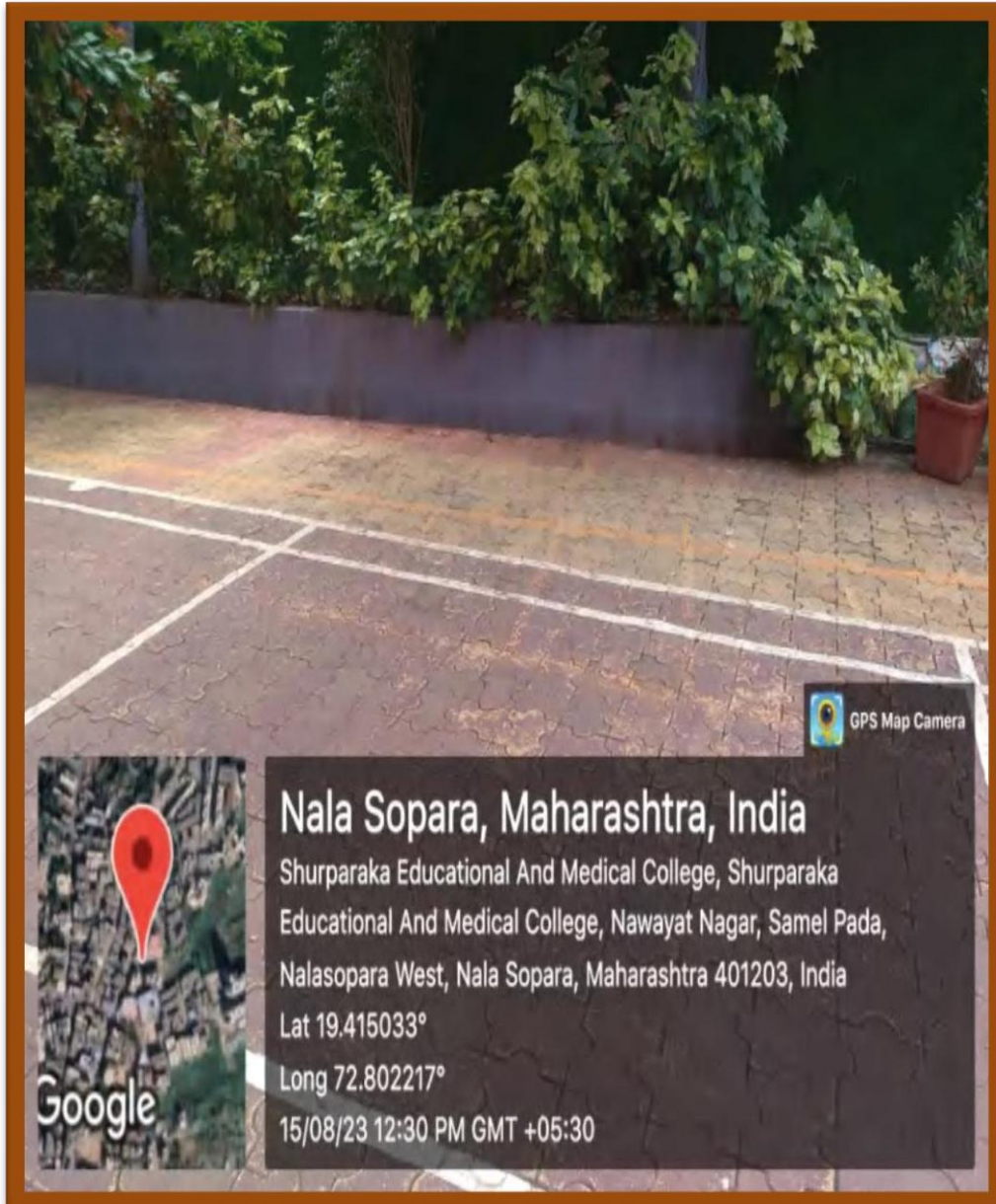


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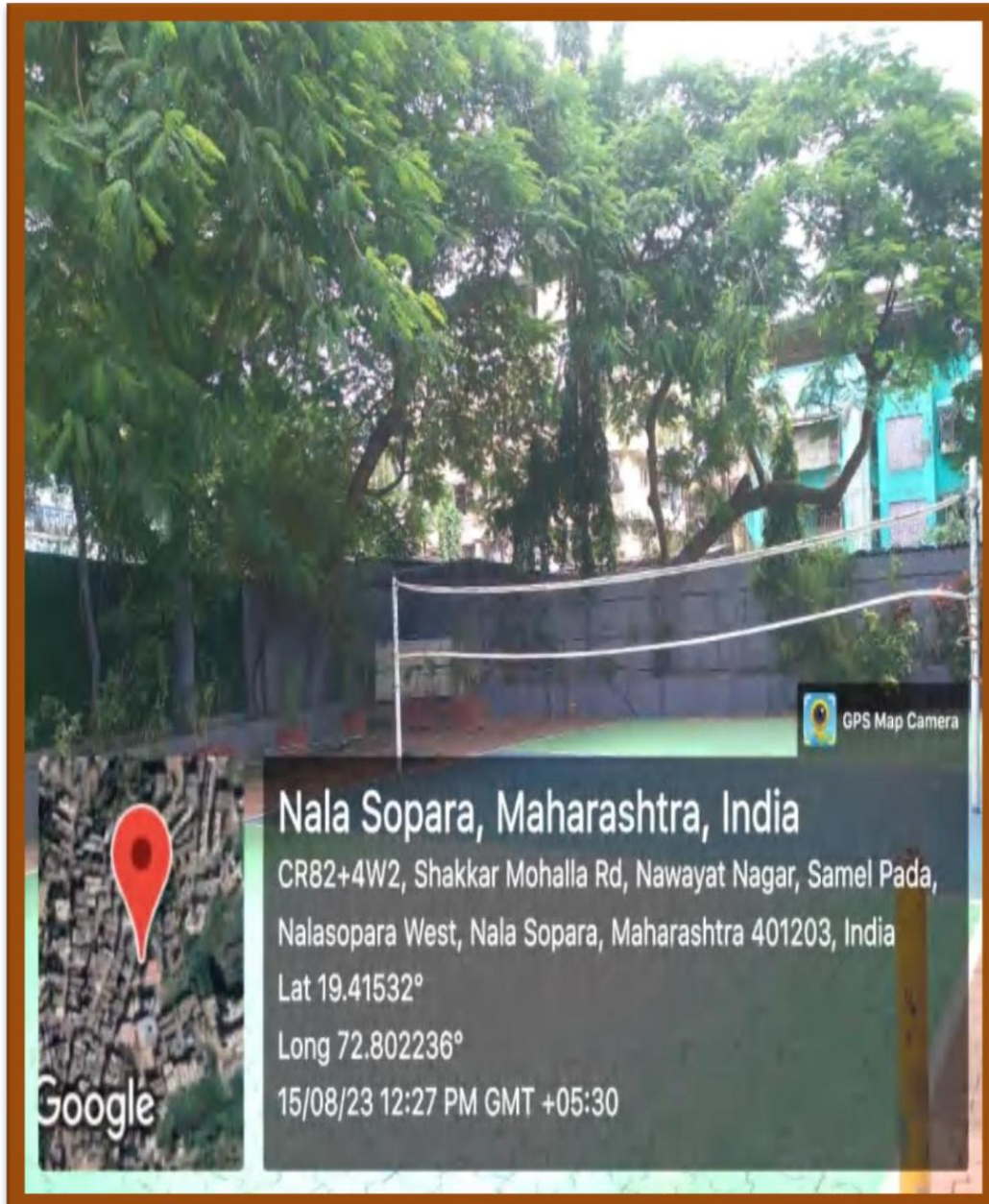


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5.Disable Friendly Environment

List of Disable Students

 SHURPARAKA EDUCATIONAL & MEDICAL TRUST'S
M. B. HARRIS COLLEGE OF ARTS &
A. E. KALSEKAR COLLEGE OF COMMERCE & MANAGEMENT
AFFILIATED TO MUMBAI UNIVERSITY
ACCREDITED "B+" GRADE BY NAAC

Ref. No. _____ Date.: 21-06-23


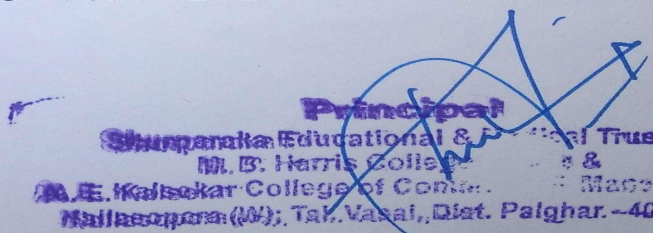
In the Academic Year 2017-18 no Disable Students in our College.

In the Academic Year 2018-19 in our college we had one disable female student Miss Subhada Anil Kambale in class F.Y.B.A . She had received scholarship from MAHADBT of Rs 900.

In the Academic Year 2019-20 no Disable Students in our College

In the Academic Year 2020-21 no Disable student in our College.

In the Academic Year 2021-22 no Disable Students in our College

 
Principal
Shurparaka Educational & Medical Trust's
M. B. Harris College of Arts &
A.E. Kalsekar College of Commerce & Management
Mallaseopara (W), Tal. Vasai, Dist. Palghar. -401 203

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