



**CENTRAL RAILWAY SCHOOL & JR. COLLEGE KALYAN**  
**PROJECT SWACHH VIDYALAYA- SWASTH VIDYALAYA**  
**NARRATIVE REPORT FOR IGBC GREEN SCHOOL CERTIFICATION**



A CAMPUS WITH A COMMITMENT TO NURTURE THE NATURE & BLESSED WITH SPLENDID BIO-DIVERSITIES

**SAVING THE NATION'S MOST PRECIOUS RESOURCES**  
*FEATURING THE BEST OF*  
**AIR, WATER, ENERGY, SOIL & ENVIRONMENT SAVING CAMPUS INITIATIVES**



DUST FREE, TOTALLY DIGITISED, WELL ILLUMINATED & SPACIOUS LEARNING FACILITIES PAINTED WITH LOW VOC PAINTS



ON SITE 50 KW GREEN ENERGY BY SOLAR, 100% ENERGY EFFICIENT LIGHTING FIXTURES , CFC FREE REFRIGERANTS



EXCELLENT UN-POLLUTED, COOL, PLASTIC FREE MICRO ENVIRONMENT WHERE FLORA & FAUNA LIVE IN TOTAL HARMONY



BIO-DIGESTER FOR WASTE MANAGEMENT, WATER MANAGEMENT WITH STP, WATERLESS URINALS & DRIP IRRIGATION



## CENTRAL RAILWAY SCHOOL KALYAN IS INDEBTED TO

This project was impossible without the leadership of Central Railway administration at Head Quarters and at Mumbai Division. Hon. General Manager took a special initiative to make the campus green and generously helped the school with timely guidance and funds. Personnel Department under the leadership of Shri N. Swaminathan nurtured this educational institution. Divisional Railway Manager Shri S.K. Jain showed great resolve to make it happen and Shri N.P. Singh, ADRM Mumbai coordinated various departments to get the work done in targeted time.

### THE VISIONARY LEADERSHIP AT CENTRAL RAILWAY HEAD QUARTERS & AT MUMBAI DIVISION



Shri D. K. Sharma  
General Manager, Central Railway



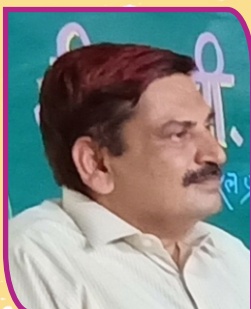
Shri N. Swaminathan  
PCPO, Central Railway



Shri B.K. Bihani  
CPO(IR), Central Railway



Shri Sanjay Kumar Jain  
DRM, Mumbai



Shri N.P. Singh  
ADRM, Mumbai



Shri. Abhishek  
Sr. DPO, Mumbai



Shri D.D. Lolge  
Sr. DEN & Chairman SMC

The project's journey started with a very enlightening IGBC seminar in January 2018 at Goa. Shri Sampath Kumar of IGBC was very helpful in giving his valuable guidance. Ms. Sri Rekha Mavulati from IGBC HQ guided us with necessary guidance. Shri Vikram Singha was always available to visit the project and furnish valuable inputs.

Team Railway School Kalyan was enthusiastic with this project.

We are grateful to every body who helped us in successful completion of this project.



# CENTRAL RAILWAY SCHOOL JR. COLLEGE KALYAN DOCUMENTATION & NARRATIVE REPORT



PROJECT ID : IGBCGS 190172



This documentation is made for the IGBC Green School Certification Programme on behalf of Central Railway administration. It was a concerted action plan of Central Railway administration to go ahead for the green campus certification and to do everything possible to make it happen with a missionary zeal and to meet all standards to comply with the benchmarks.

We are indebted to Hon. General Manager, Central Railway and Divisional Railway Manager, Mumbai Shri S.K. Jain for their vision and sanctioning the funds for this project and consistently monitoring its progress. Shri N.P. Singh and Shri V.A. Malegaonkar ADRMs have been instrumental in coordinating various departments in this pursuit. Our heart full of gratitude to all.

This brief contains the summary of work done relentlessly for a period of eighteen months to make the existing more [than hundred years old heritage type building](#) to meet with IGBC standards.

This PDF document is designed in such a way that the highlighted word/s in [BLUE](#) when clicked, shows the relevant attachment as a web page and relevant Exhibits on clicking will help to browse the numbered supporting documents as web pages showing the exact geolocations of the asset/facility under reference for universal access to all stakeholders in the process of IGBC Green School Certification. For example on clicking [Rudraksha](#) it takes to the garden in campus where the tree exists. [Lotus pond](#), [Vietnam Early Jack fruit](#) and [passion fruits](#) on clicking takes to its geolocation, [pit harvesting](#) or [rain water harvesting](#) exactly shows the site and so on. Most of Graphical fragments in this document also behave the same way on clicking. [Attachments](#) to this document are on page 57 and [Exhibits](#) on page 58 given also as web pages.

Documentation, web page designs and submission by: Jacob Thomas, Principal, Central Railway school & Junior College, Murbad Raod, Kalyan West, Maharashtra. url: [www.crskyn.org](http://www.crskyn.org)  
Phone : 8828119012 email:crskyn1918@gmail.com





## LOCAL BUILDING REGULATION

Central Railway School & Jr. College Kalyan is a heritage type building constructed by the old GIP Railways before independence of India. The School was started as a primary school in the year 1918 by Britishers to impart education to the wards of railway men. Now the school has completed more than hundred years and is a well maintained heritage structure. The original building plan is not available in school records hence a qualified consultant was hired to make the Building plan and Floor plans of the existing building. The plan made by M/s Decon Consultantants is attached with this as [Attachment No.1](#) - [Attachment No. 2](#) with this document. [The Fit for Occupancy declaration from competent authority is given in Attachment No.26.](#) The front and side views of the school building given below:







## TOP SOIL PRESERVATION

Top soil conservation is taken adequate care in campus. Almost all garden patches are landscaped to prevent soil erosion. 9' to 12' boundary walls of RCC/stone masonry provides appropriate boundary walls for the campus. Rainwater is maximum harvested and there is very little outflow from campus. The fag end of the playground is landscaped in such a manner that rainwater does not flow-out with soil. Soil brought for gardening, ground repair or any construction is maintained well from erosion by putting tarpaulin. Below shown is the photograph of soil covered thus. A detailed look of the soil conservation measures are given in separate Exhibit Nos. Soil conservation 1-5 <http://www.crskyn.org/igbc3.html>

SOIL BROUGHT FOR REPAIRS/GARDENING PRESERVED BY COVERING WITH TARPAULINS





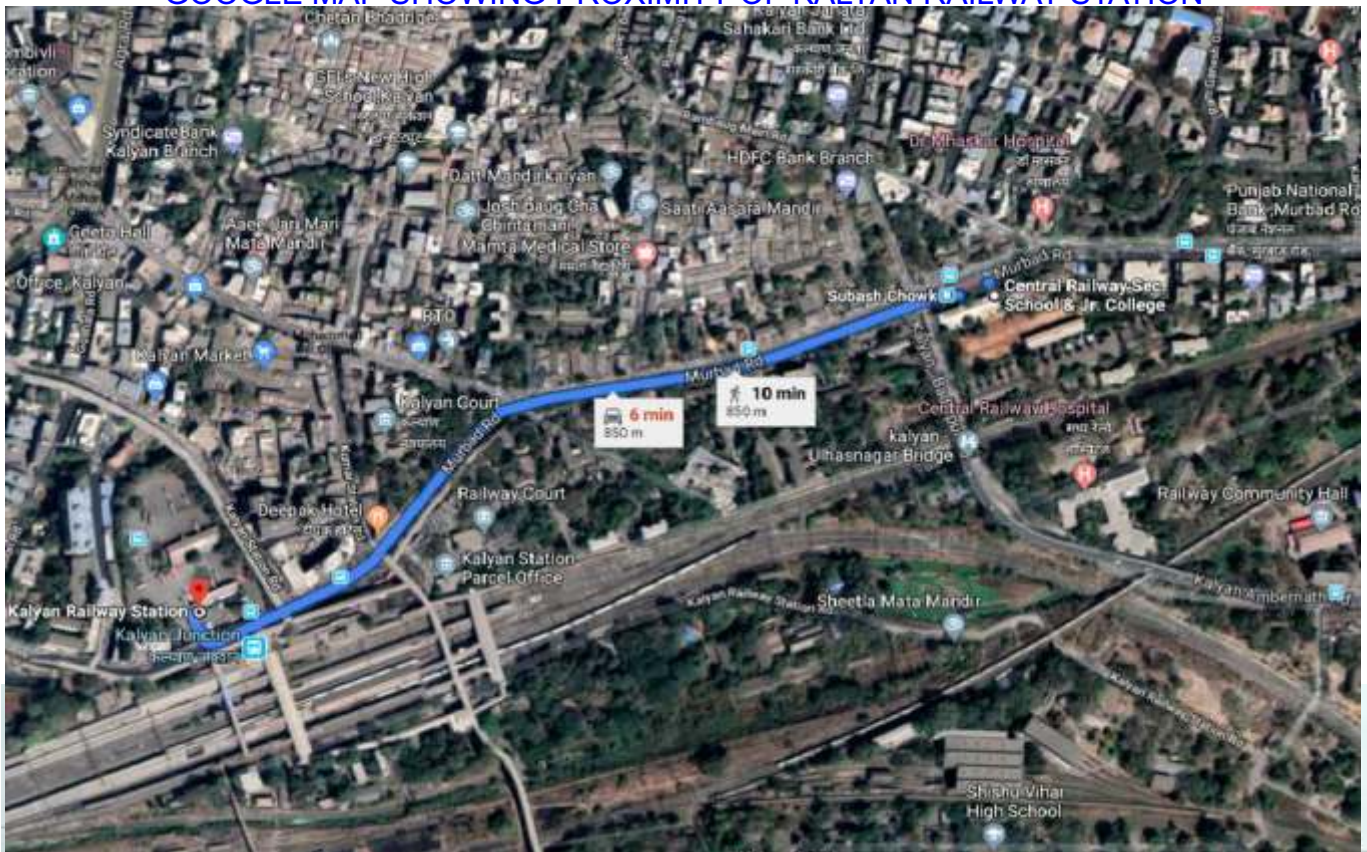
## ECO-FRIENDLY COMMUNITING PRACTICES

More than 40% of the students/teachers of the school walk/use bicycles to reach the school as most of the population in school are from nearby railway colonies. More than 50% of the teachers use public transport, i.e, suburban electric trains for commuting. Railway station is hardly 500 metres away from the station and there is a Municipal Transport stop dedicated near the front main gate of the school.

### DETAILS OF STUDENTS/TEACHERS COME TO SCHOOL BY WALK/BICYCLE/PUBLIC TRANSPORT

1. BY WALK : 720
  2. PUBLIC TRANSPORT : 480
  3. BY OTHER MEANS : 500
- TOTAL STRENGTH OF STAFF & STUDENTS 1700**

### GOOGLE MAP SHOWING PROXIMITY OF KALYAN RAILWAY STATION





## PARKING SPACES IN CAMPUS

School has dedicated parking spaces for Students and Staff. Documentation available on <http://crskyn.org/igbc46a.html>

Earmarked parking is available for differently abled persons also. Documented on <http://crskyn.org/igbc46.html>

Bicycle racks are provided in ample number at multiple points.

School conducts a regular empowerment programme called 'Bicycle movement'. This not only promote bicycle practice and save fuel but also create confidence in children at a very young age and make awareness among them on road safety. School provides free bicycles for this and teachers and senior students are associated in this venture of empowerment.

### PHOTOS SHOWING PEDAL POINTS FOR BICYCLES AND BICYCLE MOVEMENT



BICYCLES DISTRIBUTED TO GIRLS UNDER BICYCLE MOVEMENT TO PROMOTE SELF RELIANCE AMONG GIRLS & TO SAVE FUEL CONSUMPTION



SR DIVISIONAL PERSONNEL OFFICER FLAGS OFF BICYCLE MOVEMENT & PEDAL POINTS MADE TO PROMOTE CYCLING



BICYCLE MOVEMENT PROMOTED IN SCHOOL AT VERY EARLY STAGES



A TINY TOT MOVES BICYCLE AND BICYCLES PROVIDED FREELY FOR KIDS AT PEDAL POINT OF SCHOOL



## GREENERY IN CAMPUS

TURF DESIGN & CALCULATIONS DEMONSTRATING THE PERCENTAGE OF LANDSCAPE & WATER EFFICIENT LAND SCAPING, AREA PROVIDED WITH NATIVE/ DROUGHT TOLERANT PLANT SPECIES

DETAILS OF SITE AREA CALCULATION	
PARTICULARS	AREA IN M <sup>2</sup>
<b>A. TOTAL SITE ARE OF CAMPUS</b>	<b>12140</b>
B. BUILDING FOOT PRINT MAIN BUILDINGS	1972
C. SCIENCE BLOCK	495
D. AUDITORIUM	320
E. FITNESS CENTRE	100
F. TOILET BLOCKS	100
G. TOTAL BUILDING FOOTPRINT	2987
H. PATHWAY/ROAD INSIDE CAMPUS	584
I BUILDING FOOT PRINT + PATHWAY	3571
J. OPEN AREA (A-I)	8569
K. PLAYGROUND	5625
L. LANDSCAPED AREA FOR VEGETATION ( J - K)	2944
<b>M. PERCENTAGE OF VEGETATED AREA IN OPEN SPACE (excluding playground) = 96%*</b>	
N. TURF AREA	30
O. NATIVE SPECIES AREA	215
P. DROUGHT TOLERANT PLANTS AREA	2182
Q. OTHER PLANT SPECIES AREA	400
<b>R. TOTAL VEGETATED AREA( N+O+P+Q)</b>	<b>2827</b>
<b>* % calculated excluding playground space from the total open area.</b>	

LIST OF NATIVE / DROUGHT TOLERANT SPECIES (INCLUDING TREES, SHRUBS, HERBS, CLIMBERS AND GRASS) USED IN THE SCHOOL CAMPUS.

[To see the complete list of plants click on this link Attachment No 3.](#)

**THE FULL BLOOMED FLAME WINE/SANKRANT VEL OF SCHOOL**



Landscape plan highlighting the location of areas planted with native / drought tolerant species.

Photographs illustrating turf area is well documented category wise :

Refer to [Exhibit Category Micro environment 1-6: documented on http://www.crskyn.org/igbc8.html](http://www.crskyn.org/igbc8.html)

Please refer to campus layout attached to this document showing

% of turf covered with cover : [Attachment No.4](#)



## HEAT EXPOSURE TO SUN : NON-ROOF

Out of the Non-roof area of 8569 square metres, about 2827 square metres (excluding play ground) are covered with various types of greenery that includes [native drought tolerant plants](http://www.crskyn.org/igbc9.html) (<http://www.crskyn.org/igbc9.html>) and other bio-diversities. Nearly 96% of the non-roof area of campus excluding playground is covered with trees and plants of various types, named as differnt garden after the name of renowned scientist as exhibited in [Best Practices](#), the list is well documented under [plant list connected to this link Attachment No.3](#). The campus has more than 300 species of plant varieties. The total plant population in campus is more than 3000. Non roof greenery is well documented in [Exhibit Nos. Micro environment 1-6](#) documented on <http://www.crskyn.org/igbc8.html>



SCHOOL FRONTAGE WITH SHADE PROVIDING NATIVE TREES LIKE JAMUN, RAIN SHOWER TREE, BAKUL & SAPTAPARNI





## MINIMISING HEAT EXPOSURE TO SUN : NON-ROOF

Out of the total Roof Area of 4420 square metres of three buildings, hundred per cent roof is white coloured and minimises heat to improve micro climate and it has been observed that temperature has decline by 3-5 degrees due to this. This is documented well in [Exhibit : Micro environment 1](http://www.crskyn.org/igbc8.html) documented on <http://www.crskyn.org/igbc8.html>

## WHITE COLOURED ROOFING IN CAMPUS





## UNIVERSAL DESIGN OF CAMPUS

The campus is committed to Universal design and caters to the differently abled persons in a unique manner by improving the existing facilities. School has undertaken various CWSN initiatives and made ramps, railings, CWSN friendly restrooms, wheel chairs etc to comply with at multiple locations of the campus. The Universal design is well documented in [Exhibit No. Wellness of Inhabitants5](http://www.crskyn.org/igbc14.html)

<http://www.crskyn.org/igbc14.html>

The school is totally compliant to differently abled persons abd facilities are documented in [Exhibit Nos.Inclusive education 1-2](http://www.crskyn.org/igbc46.html) <http://www.crskyn.org/igbc46.html>

### RAMPS & WHEEL CHAIR AVAILABLE IN CAMPUS



### EARMARKED PARKING SPACE FOR DIFFERENTLY ABLED AVAILABLE IN CAMPUS





## RAIN WATER HARVESTING, ROOF & NON-ROOF

Nearly 50% of Roof top water is harvested scientifically in campus and 30% is harvested through [Pit harvesting method](http://www.crskyn.org/igbc17a.html).<http://www.crskyn.org/igbc17a.html>  
The auditorium taken for renovation will have 100% scientific harvesting and in near future 100% run-off volume of rain water will be harvested.

FOR DETAILS OF CALCULATIONS OF RAIN HARVESTING SYSTEM PLEASE REFER TO THE PROJECT REPORT SUBMITTED BY REFER TO THE PROJECT REPORT SUBMITTED BY CONSULTANT SEPARATELY ATTACHED WITH THIS- [ATTACHMENT No.5](#)

PHOTOGRAPHS OF IMPLEMENTED MEASURES  
FOR RAIN HARVESTING AT MULTIPLE LOCATIONS





## WATER EFFICIENT PLUMBING FIXTURES

### LIST OF PLUMBING FIXTURES:

Plumbing fixtures used in campus are mostly of Hindware make or Cera make.  
FOR THEIR FLOW RATE PLEASE REFER  
TO MANUFACTURERS BROCHURE GIVEN IN [ATTACHMENT No.6](#)

### CALCULATIONS SHOWING THE PERCENTAGE REDUCTION IN THE AMOUNT OF POTABLE WATER UTILISED BY USING EFFICIENT PLUMBING FIXTURES

				Base Line		Proposed	
Fixture Type	Duration	Daily uses per person per day	Number of Students & Teachers (n)	Flow rate/ capacity(fb)	Total Water Use(litres) Tb=(nXfb)	Flow rate/ capacity(fp)	Total Water Use(litres) Tp=(nXfp)
Water Closets	1 Flush(Full Flush)	1 for male	910	6LPF	5460	4LPF	3640
		1 for female	690	6LPF	4140	4LPF	2760
	1 Flush(Half Flush)	2 for female	690	3LPF	4140	2LPF	2760
Urinals	1 Flush	2 for male	910	4LPF	7280	2LPF	3640
Health Faucet	0.25	1	1600	4LPM	1600	2LPM	800
Faucet/Taps	0.25	4	1600	8LPM	12800	6LPM	9600
TOTAL WATER USE (litres/day)							23200
Number of working days					220		
TOAL ANNUAL WATER USE IN LITRES ( Total water use x Number of working days)					77,92,400		51,04,000
<b>Percentage reduction of water usage from the base line</b>					<b>34.50%</b>		

LIST OF PLUMBING FIXTURES WITH THEIR CORRESPONDING FLOW RATES	FLOW RATE
HINDWARE DUAL PUSH FLUSH TANKS	50%
CERA DUAL PUSH FLUSH TANKS	50%
HEALTH FAUCETS WITH AERATORS	60%
HAND WASH TAPS	60%
FACE WASH TAPS	60%
FEET WASH TAPS	60%
URINAL FLUSH	70%

**Vendors Certificate for supplying water efficient plumbing fixtures is shown in [Attachment No. 7](#)**



**TURF DESIGN & CALCULATIONS DEMONSTRATING THE PERCENTAGE OF LANDSCAPE & WATER EFFICIENT LAND SCAPING, AREA PROVIDED WITH NATIVE/ DROUGHT TOLERANT PLANT SPECIES**

TYPE OF VEGETATION	ON GROUND (sq.m)
TURF	30
NATIVE SPECIES	215
DROUGHT TOLERANT PLANTS	2182
OTHER PLANT SPECIES	400
TOTAL	2827
TOTAL LANDSCAPED AREA (sq.m)	2944
TOTAL AREA WITH NATIVE/ DROUGHT TOLERANT SPECIES (sq.m)	2397
PERCENTAGE(%) OF VEGETATED AREA WITH NATIVE AND DROUGHT TOLERANT SPECIES	81.41%

**PHOTOGRAPH SHOWING TURF AREA IN SCHOOL**



Landscape plan highlighting the location of areas planted with native / drought tolerant species.

Photographs illustrating turf area is well documented category wise :

Refer to Exhibit Category [Micro environment 1-6:documented on http://www.crskyn.org/igbc9.html](http://www.crskyn.org/igbc9.html)

Please refer to campus layout attached to this document showing % of turf covered with cover : [Attachment No.4](#)



# WATER EFFICIENT LANDSCAPING

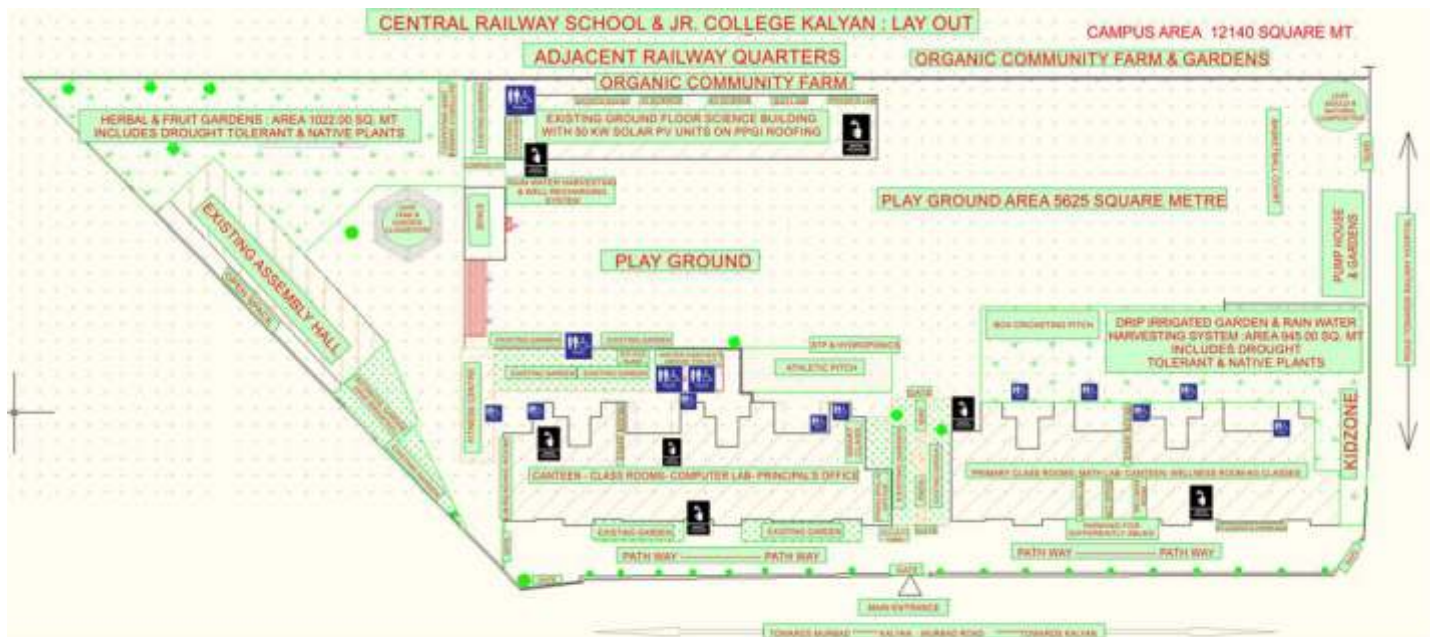
## DETAILS OF SITE AREA CALCULATION

PARTICULARS	AREA IN M <sup>2</sup>	
<b>A. TOTAL SITE ARE OF CAMPUS</b>	<b>12140</b>	
B. BUILDING FOOT PRINT MAIN BUILDINGS	1972	
C. SCIENCE BLOCK	495	
D. AUDITORIUM	320	
E. FITNESS CENTRE	100	
F. TOILET BLOCKS	100	
<b>G. TOTAL BUILDING FOOTPRINT</b>	<b>2987</b>	
H. PATHWAY/ROAD INSIDE CAMPUS	584	
<b>I BUILDING FOOT PRINT + PATHWAY</b>	<b>3571</b>	<b>3571</b>
J. OPEN AREA (A-I)		8569
K. PLAYGROUND		5625
L. LANDSCAPED AREA FOR VEGETATION ( J - K)		2944
<b>M. PERCENTAGE OF VEGETATED AREA IN OPEN SPACE(excluding playground) = 96%</b>		
N. TURF AREA		30
O. NATIVE SPECIES AREA		215
P. DROUGHT TOLERANT PLANTS AREA		2182
Q. OTHER PLANT SPECIES AREA		400
<b>R. TOTAL VEGETATED AREA( N+O+P+Q)</b>		<b>2827</b>

LIST OF **NATIVE / DROUGHT TOLERANT SPECIES** (INCLUDING TREES, SHRUBS, HERBS, CLIMBERS AND GRASS) USED IN THE SCHOOL CAMPUS.

To see the complete list of plants click on this link. Attachment No.3

### LAYOUT SHOWING EARMARKED AREAS WITH DROUGHT TOLERANT PLANTS/TREES



Pant list is also categorised in such a manner that the name of the plant with its common and scientific name is made available with its geo-location in campus.

Photographs illustrating turf area is well documented catetgory wise :

Refer to Exhibit Category **Micro environment 1-6**: <http://www.crskyn.org/igbc9.html>

Please refer to campus layout attached to this document showing % of landscape with vegetation. **Campus Layout** is given in Attachment No.4





**CENTRAL RAILWAY SCHOOL KALYAN**  
**PROJECT SWACHH VIDYALAYA**  
**RAIN WATER HARVESTING DETAILS: ROOF & NON-ROOF**



RAINWATER HARVESTING CALCULATIONS				
SR. No.	SURFACE TYPE	Run-off Coefficient ( c )	Area (M <sup>2</sup> ) (a)	Impervious area (m <sup>2</sup> ) I=(c x a)
1	PPGI ROOF	0.95	3775	3586.25
2	RCC ROOF	0.9	165	148.5
3	PLAYGROUND	0.35	5625	1968.75
4	TURF	0.25	30	7.5
5	OPEN GRID CONCRETE PAVEMENTS	0.75	584	438
6	VEGETATION AVERAGE	0.2	2941	588.2
TOTAL IMPERVIOUS AREA IN Sq. M. (€ I )				6737.2
Average Normal Rainfall in m ( R )				0.025*
Total Roof & Non-Roof run-off volume in cu.m. ( € I x R )				168.43
Storage Capacity of well in cu.m.				30.03
Storage Capacity of Tank in cu.m.				30
Harvesting Capacity of Recharge Pits ( 4 Nos.)				53.3
Harvested in playground through banking technique for root irrigation**				49.22
Total Rain water harvested through various methods in campus				162.55
Percentage (%) of run-off volume harvested				96.50%

\* Based on rainfall in Kalyan area of Maharashtra. Pit harvesting method is documented on <http://www.crskyn.org/igbc17a.html> . Please see Main water harvesting from roof top

\*\* The playground is landscaped in such a manner that the former condition of rainwater running into municipal drainage through playground gate came to a halt. Further banking is done at rear end of ground as seen in photograph below that cause rainwater caught percolate to ground that helps in root irrigation. Prior to monsoon grass seeds are sowed so that grass prevents soil erosion and blocks water. Mulching with dry leaves & dry grass from campus is done prior and during the season that makes it more helpful.



Banking at rear end of playground



Resultant rainwater in playground for percolation



Mulched playground & grass grown in season preventing soil erosion & keeps water for percolation



## WATER EFFICIENT IRRIGATION SYSTEM: DESCRIPTION & DETAILS

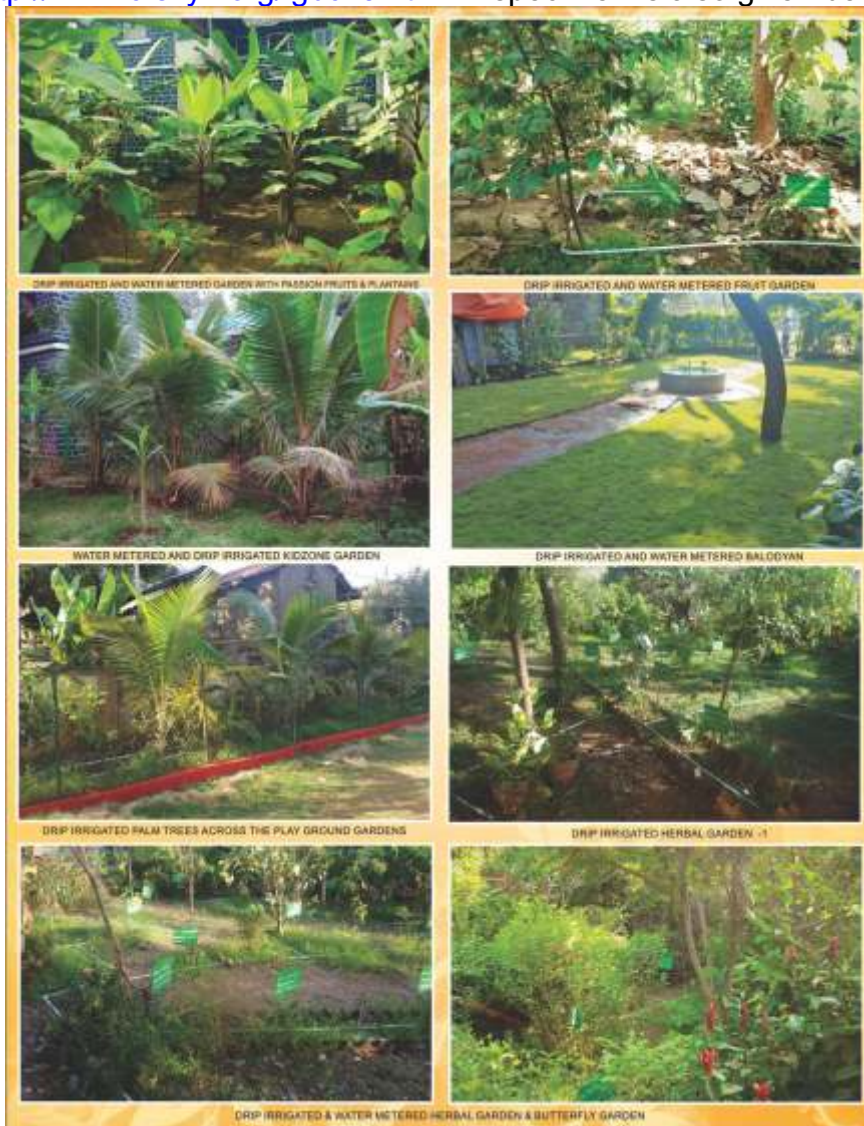
The installed irrigation system of campus is cent percent water efficient and water saving- <http://www.crskyn.org/igbc20.html>. Beyond this the school has devised such water saving techniques to train students aslo to learn the best practices evolved in campus.

They are :

1. **Drip irrigation** :- All gardens are greenery in campus are hundred percent drip irrigated and well monitored. Each drip has a potential to give 8 liters per hour to the concerned plant. Materials for this have been procured from vendors and installed under our supervision.
2. **Sprinklers**:- These are of different capacities made by school by assembling materials available in the market and used for turf moisturising under supervision.
3. **Wick Irrigation**:- is an indigenously developed system where plants are grown in good quality grow bags where in bags are filled with growing media with a centrally placed wick goes down to a 4 inch pvc pipe on the base. Wicks gradually draw water and provide mositure for plants through capillay effect. This is one of the most efficient irrigation practice in school where in the pipe is to be filled once in ten days also there by saving a huge quantity of water.
4. **Hydroponics** : Developed in school with commonly available materials and successfully practised to grow various plants.

All water supplies are metered including treated water from STP which treats 5000 litre sewage water daily. <http://www.crskyn.org/igbc17.html>

Photographs or irrigation systems are given as exhibits category wise. Please refer to [Exhibits No. Water conservation 1-6](#). <http://www.crskyn.org/igbc15.html> A specimen is also given below:





## USE OF TREATED WASTE WATER & WATER USE MONITORING

Treated waste water is stored in tanks and distributed through drip irrigation to plants.  
 Treated water is occasionally used for selected washing purposes & play space moisturising.  
 All Water supply points are metered at multiple locations including wells documented in <http://www.crskyn.org/igbc17.html>. Click here to see Water Balance Sheet Attachment No.24. **100% of the Treated Grey water is utilised.** Water Balance Sheet is made on actual meter readings.

TOTAL VOLUME OF WASTE WATER GENERATED PER DAY		12,800 (Litre per day)
CAPACITY OF SEWAGE TREATMENT PLANT		5000 LPD
EFFICIENCY OF STP		90%
TOTAL VOLUME OF WASTE WATER TREATED AVAILABLE LPD		4500 LPD
NUMBER OF WORKING DAYS		220
TOTAL VOLUME OF TREATED WASTE WATER AVAILABLE ANNUALLY		9,90,000
APPLICATION	VOLUME OF WATER REQUIRED ANNUALLY IN LITRES	TREATED WASTE WATER USED (LTRS)
FLUSHING	20,15,200	NIL
LANDSCAPING	19,44,000	9,90,000
TOTAL	39,59,200	9,90,000

**PERCENTAGE OF TREATED WATER USED ANNUALLY : 25% OF TOTAL CONSUMPTION**



**WATER METERS INSTALLED IN CAMPUS**



## USE OF TREATED WASTE WATER & WATER USE MONITORING

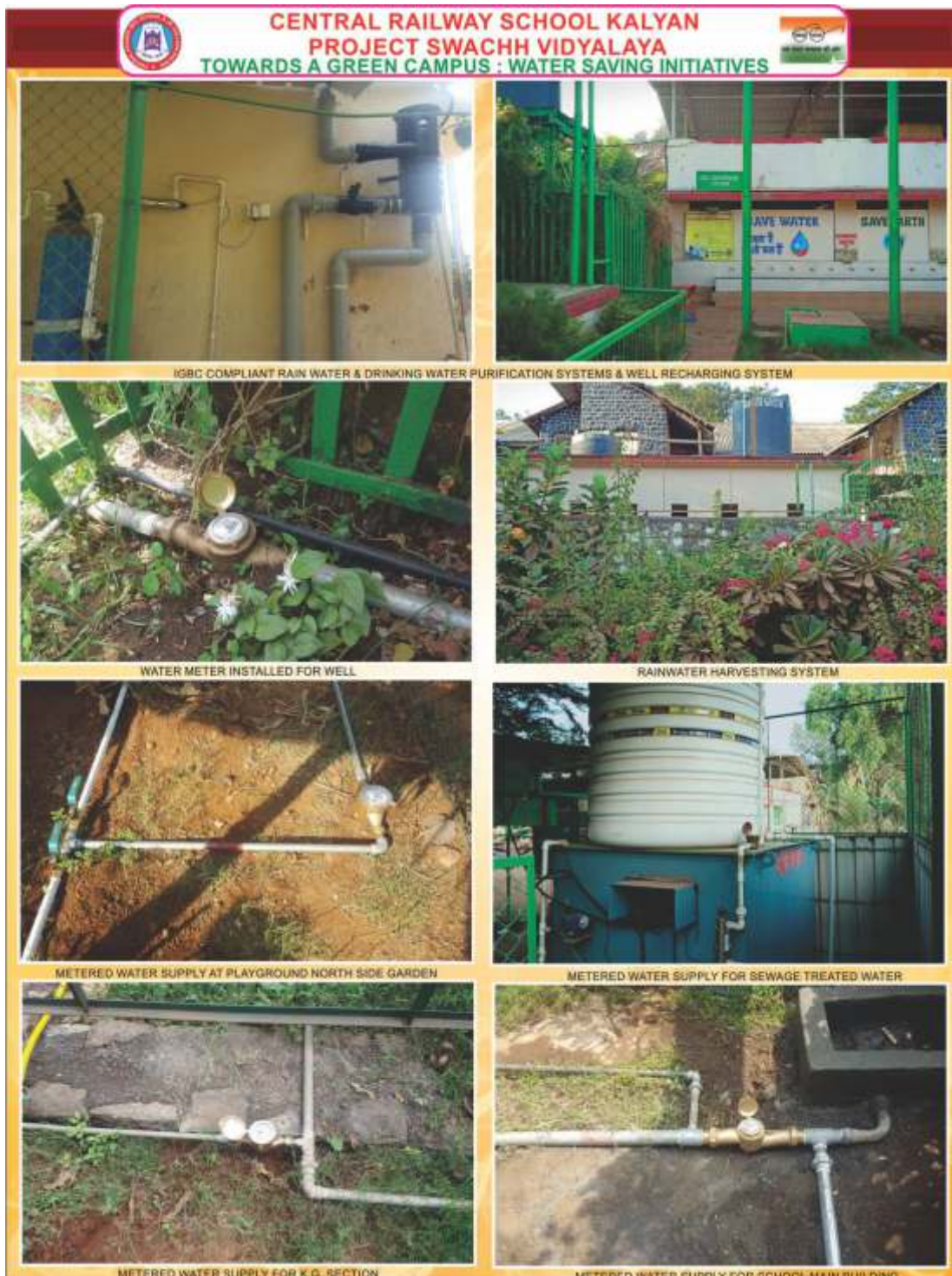
Hundred percent of Treated Grey water is used in school . It is stored in tanks and distributed through drip irrigation to plants.

Treated water is occasionally used for selected washing purposes & play space moisturising.

All Water supply points are metered at multiple locations including wells documented in <http://www.crskyn.org/igbc17.html>.

[Click here to see Water Balance Sheet Attachment No.24](#) 100% of the Treated Grey water is utilised.

Practically we have a very holistic approach towards water and every single drop is saved by all possible means. In monsoon our washroom use maximum water from rooftop harvesting and cut off municipal supply to main toilet block as there is ample storage of rainwater in over head tanks.



## ENERGY EFFICIENT LIGHTS, FANS, REFRIGERATORS & AIRCONDITIONERS

1. Each Classroom & Lab is of 50 Sq. metres. Area statement of all interior spaces are shown in Floor plan attached along with document- [Attachment No.16](#)
2. Number of lighting fixtures along with wattage details are given in the following Table. Also see [Attachment No. 21](#)
3. Photographs of few are given below, however full details are available in separate [Exhibit Nos. Energy conservation 1-3](#) <http://www.crskyn.org/igbc21.html>
4. Manufacturing Brochure of Fans shown as [Attachment No.9](#) Lights are LED supplied under government scheme, phot shown below. Brochure of Airconditioners used is given in [Attachment No.10](#)
5. Projection Systems are energy efficient so do TV sets used. Brochure in [Attachment No. 31](#)

### CALCULATIONS SHOWING THE PERCENTAGE OF ENERGY SAVED BY INSTALLING ENERGY EFFICIENT ELECTRIC FIXTURES (Wattage of old fan 75, New fan 28, Old light 55 New light 18 No. of Working days in year 220

FIXTURE TYPE	LOCATION	OPERATING HOURS	NO. OF EXISTING FIXTURE	BEFORE REPLACEMENT		AFTER REPLACEMENT		SAVINGS
				DAILY CONSUMPTION UNITS	ANNUAL CONSUMPTION UNITS	DAILY CONSUMPTION UNITS	ANNUAL CONSUMPTION UNITS	ANNUAL SAVINGS IN UNITS
LIGHT FITTINGS	CLASS ROOMS 50 sq. m each 38 Nos.	6	304	100.32	22070.4	32.83	7222.6	14847.8
	LABS 50 sq. m each 7 Nos.	6	56	18.48	4065.6	9.408	2069.76	1995.84
FANS	CLASS ROOMS 38 Nos.	6	228	102.6	22572	38.304	8426.88	14145.12
	LABS 7 Nos.	6	42	18.9	4158	7.056	1552.32	2605.68
TOTAL				240.3	52866	87.598	19271.56	33594.44
Number of working days					220			
ANNUAL ENERGY CONSUMPTION IN UNITS					BEFORE		AFTER	
TOAL ANNUAL ENERGY USE IN UNITS ( Total ENERGY USE PER DAY x Number of working days)					52866		19271.56	
PERCENTAGE SAVING IN ELECTRIC ENERGY AFTER REPLACEMENT OF FIXTURES					63.55%			

## Photos of energy saving lighting fixtures, Airconditioners & Fridge





## ENERGY SUB-METERING & ONSITE RENEWABLE ENERGY

1. Energy meter is installed in school by MSEDCL photo given below
2. Onsite renewable energy is produced by 50 KW Solar PV unit installed on roof top of school building the photograph of which is shown in separate [Exhibit No. Energy conservation3. documented in <http://www.crskyn.org/igbc23.html>](http://www.crskyn.org/igbc23.html)
3. Manufacturing Brochure of meters are not available as they are installed by MSEDCL, the service provider. [Energy Bills before replacement of lighting fixtures and after replacement is shown in Attachment No.11.](#) Onsite Renewable energy produced is 50 KW, which is more than the requirement of the campus. [Certificate shown in Attachment No. 19. A comparison of energy bills before replacement of lighting fixtures and after shows a saving of 80% of energy.](#)

### ENERGY METER INSTALLED BY MSEDCL



### ENERGY METER INSTALLED FOR SOLAR PV UNIT



## SOLAR WATER HEATING SYSTEMS & DISTRIBUTED POWER GENERATION

1. With reference to the above it is submitted that school is a day school and does not have the need for Solar heating system. Hot water is not used in school as there is no residential unit in school. We have 50 KW solar energy production and in future if need arises, this will be installed as there is enough roof area left in the campus for installing the system.

2. With reference to Distributed Power generation it is submitted that the school does not need this as there is no scope of power failure in school. Railway's fool-proof regular power supply system is made available in the school as a backup in case of Maharashtra State Electricity supply lines fail. More over there is Solar onsite energy available. Hence there is no scope for a DG set as a requirement in the prevailing situation. However if IGBC norms desire this as a requirement for this school's scenario, it will be complied with.



50 KW ON-SITE SOLAR PV UNIT INSTALLED ON SCIENCE BLOCK



## OZONE DEPLETING SUBSTANCES

### PHOTOGRAPHS OF FIRE SUPPRESSION SYSTEM USED IN SCHOOL



The Fire suppression systems are supplied by a certified vendor, whose certificate on Halon free system is attached in [Attachment No. 12](#).

[Declaration from owner regarding Refrigerants & Fire suppression systems used: Attachment No. 22](#)

## WASTE SEGREGATION AND WASTE MANAGEMENT

School follows a comprehensive Waste Management System. Each classroom is provided with a trash bin which is cleaned on daily basis. Each building and floor has colour coded trash bins. Wet waste is segregated from dry waste. Waste management educative materials with instruction for wet segregation are installed at multiple points. ***Dry waste like paper, plastic wrappers etc are gathered from classes through colour coded bins for dry waste and picked up by Municipal facility in every morning for further processing.***

Food waste from school canteen is collected separately and send to Bio gas plant by school's Green Committee comprised of teachers and students.

Other bio-waste on weeding og gardens etc are deposited in organic compost tank. Leaves collected are stored and composted for **leaf mould manure sepearaely**. <http://www.crskyn.org/igbc59.html>

Electronic waste is collected and deposited in a special bin provided by Municipal authorities and routinely disposed after taking certificates from competent authority. Certificate attached with this- [Attchment No.13](#).

**Details of number of bins placed :-**

**Primary Building Colour Coded Bins 6Nos on Building frontage.**

**Secondary Building Colour Coded Bins 6Nos on Building frontage.**

**Science Block Colour Coded Bins 4Nos on Building frontage.**

**Other than above each classroom and laboratory and other facilities are provided with appropriate dust bins.**

**Photographs of bins & waste management is given in detail as**

**Exhibit No. effective waste managment 1-2** <http://www.crskyn.org/igbc25.html>



WASTE MANAGEMENT EDUCATION TO PROMOTE A CLEAN AND GREEN CAMPUS



ELECTRONIC WASTE MANAON



## WASTE SEGREGATION AND WASTE MANAGEMENT

Organic waste from school canteen goes to Bio-digester that produces bio gas which is distributed to Canteen, Office Kitchen and Chemistry Lab of School.

Approximately 15 kg organic waste is processed daily on normal working days. School also has compost tumbler and other small odourless composting units maintained using scientific culture at multiple points.

All other bio-waste goes to compost pits of school that generates organic manure for farming and horticulture purpose in school.

### PHOTOGRAPHS OF WASTE MANAGEMENT IN SCHOOL





## WASTE SEGREGATION AND WASTE MANAGEMENT

Composting in campus is Four fold. Bio and food waste is treated through Bio Gas plant which converts it into bio gas and liquid manure. Weeding bio waste from campus gardens is sent to Organic compost pit that converts them to organic manure in due course of time. Dry leaves are collected from campus and composted to make leaf mould in six months time, which is considered as the best natural manure for plants. Vermi compost is also made in campus using cow dung through earth worms.

**100% organic waste is treated in campus facilities.**

School has proven results on **Natural Farming** most reputedly known as Zero Budget Farming or Subhash Palekar Natural Farming (SPNF), a spiritual value based farming reputed for rejuvenating the virgin nature of land and improving plant health with **very high yield** using 'Jeevamrut' made in

### PHOTOGRAPHS OF ORGANIC COMPOSTING IN SCHOOL



**LEAVES BEING PICKED UP FROM CAMPUS FOR MAKING LEAF MOULD IN SCHOOL**



## GREEN POLICY AND RETROFIT WORK FOR HERITAGE MANAGEMENT

School follows an integrated green policy that is well communicated to the families associated with the school regarding green practices in households as well.

School has reached already more than 2000 families of children with a free cotton bag made by students in school under skill development.

On every new admission this cotton bag is given to the family.

School is a declared Zero Plastic Zone.

Being a heritage type more than 100 year old building school tries its level best to do retrofit to maintain in heritage wood work and instead of buying new furniture, procure abandoned furniture from other railway units, repair and restore them and maintain them well for use in school. More than 25% of the current furniture of school is of that category. Total eco-friendly practices are followed in school.

The green policy of school is well illustrated in Exhibits Nos. heritage and retrofit initiatives 1-6 <http://www.crskyn.org/igbc27.html>

The Green policy of the school is illustrated as a document in school handbook distributed to students. The Photograph shown below is symbolic to show retrofit, otherwise school makes furniture using only eco-friendly wood.

**PHOTOGRAPH OF A CLASS FILLED WITH ABANDONED FURNITURE FROM ANOTHER UNIT REPAIRED FOR USE**



## GREEN POLICY AND RETROFIT WORK OF SALVAGED MATERIALS

Being a heritage type more than 100 year old building school tries its level best to do retrofit to maintain in heritage wood work. Wood work of this more than 100 years old building is mainly of burmese teak or rose wood. [The huge staircases of burmese teak](#) are strengthened through retrofit and maintained well. Furniture that normally get condemned and wasted after condemnation from concerned depots are taken are re-used after necessary repairs. The retrofit work thus saved lakhs rupees in revenue and did a lot for caring environment. There are quite a good number of precious furniture in school, made out of condemned material as shown below. The [main podium](#) of the school and the junior students [hide-out](#) are made like that.

**School's policy on furniture is totally green and all new furniture made are of composite eco-friendly boards** and laminates. Vendor's Certificate complying to IGBC standards of eco-friendly plywood supplied is given in [Attachment No. 27](#). Please see [Exhibit No.20](#)

The Furniture made of eco-friendly materials are shown in

[Exhibit No. 16](#) <http://www.crskyn.org/igbc38a.html>

However retrofit work on wood is showcased to highlight an exemplary practice of making furniture out of salvaged materials thus saving money and environment.

PHOTOGRAPH SHOWING CONDEMNED FURNITURE BROUGHT FROM ANOTHER UNIT FOR RESTORATION AND RE-USE



A COLLECTION OF CONDEMNED WOOD WITH A LOT OF IMAGINATION TURNED INTO A PLAY & LEARN FACILITY FOR JUNIOR KIDS



## SCHOOL'S GREEN POLICY DOCUMENT

### SCHOOL'S ECO FRIENDLY POLICY AS PUBLISHED IN SCHOOL HANDBOOKS

#### SCHOOL'S POLICY ON HEALTH, HYGIENE & ENVIRONMENT

Parents are advised to send lunch boxes for their children with home made healthy food. Avoid fast food and junk food for their lunch. School provides good quality drinking water hence do not burden the school bags with filled water bottles.

[School canteen](#) provides good quality refreshments at subsidized rates. Students may avail that facility also.

[School being a Zero Plastic & Zero Tobacco zone](#), you are advised not to carry plastic bags in campus. School promotes zero plastic at homes as well. As a part of this policy, we have provided more good quality cotton bags [free of cost to more than 2000 homes associated with the school](#). If you are a new parent you also will be given a cotton bag for domestic use from school free of cost. We promote a zero plastic community and a green city. Parents are advised to restrain from the use of tobacco in any form to be role models for their children.

School has a Green School Committee responsible for environment. Dust bins are provided in each class room, passages and at multiple points in campus with appropriate colour coding. Encourage your child to follow good waste management practice as displayed at multiple points of campus with [Green Blue and Red colour coded waste bins](#) and E-waste bin. You can send your E-waste to school, where it will be collected and send to the competent agency for further disposal.

Encourage your child to use [sanitisation facilities](#) at home and school to maintain their health and hygiene. Girls have a specialized [Wellness Centre at school](#) encourage them to use it as need arises. Sanitary napkin vending & incinerators are provided at multiple points of girls' Rest Rooms.

#### EXTRACT OF SCHOOL'S GREEN POLICY DOCUMENT GIVEN IN HAND BOOK

BESIDES THE ABOVE MESSAGES ARE SENT ON SCHOOL APP TO PARENTS COMMUNICATING TO SEND ONLY HOME MADE NUTRITIOUS FOOD FOR CHILDREN ALSO SEE OWNER'S DECLARATION ON GREEN POLICY

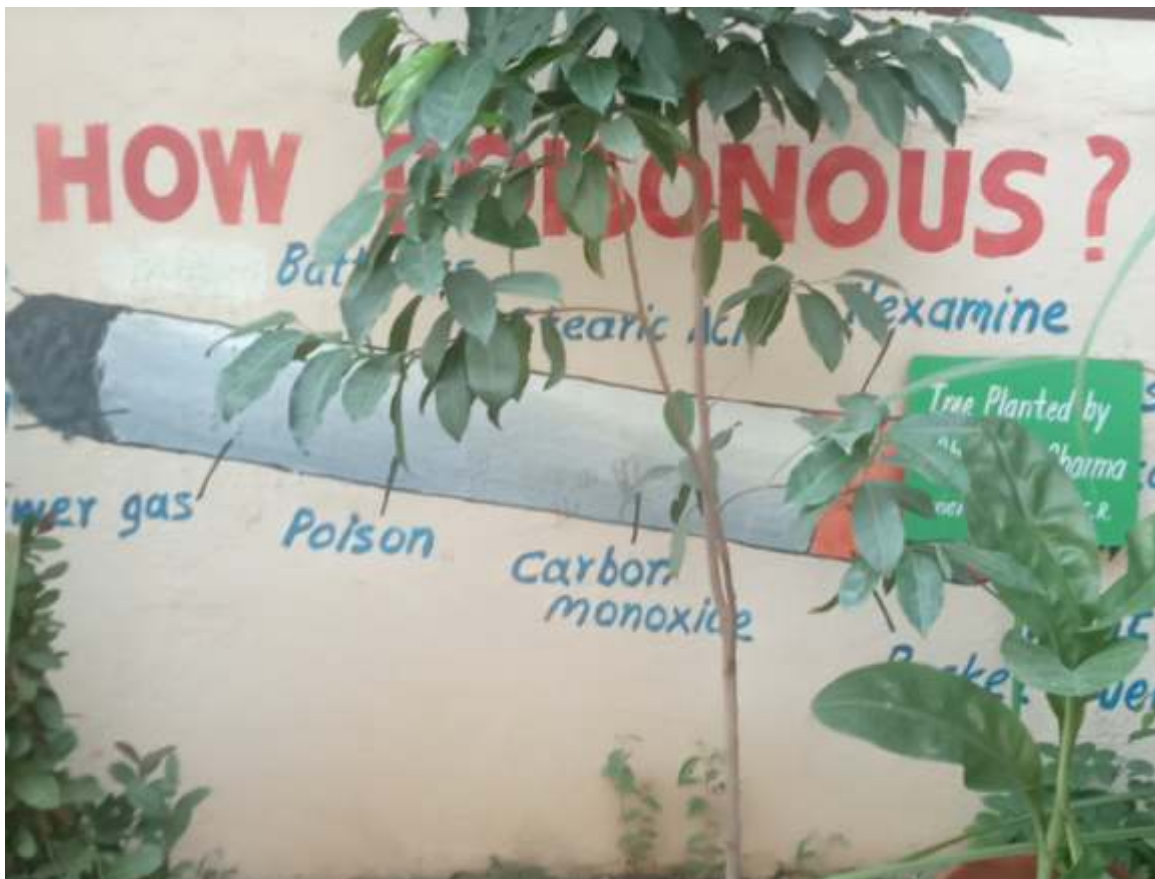
Life's tragedy is that we get old too soon and wise too late.

## TOBACCO AND SMOKE CONTROL IN SCHOOL CAMPUS

School follows a Zero Tobacco policy in campus.

Staff, visitors, parents and all type of stakeholders associated with the school strictly comply with this policy in campus.

### SIGNAGES AND EDUCATIVE MATERIAL AT MULTIPLE POINTS OF SCHOOL CREATING AWARENESS AGAINST TOBACCO USE





## AREA OF CLASSROOMS & CLASSROOM LAY OUT

Classrooms and other facilities like different labs, library, reading room, activity centre all have a uniform area of approximate 50 square metres each. Science Block classes is of 54 square metre each. Floor plan is attached with this. [Attachment No1 -](#)

[Attachment No 2](#)

### SPECIMEN LAY OUTS ARE GIVEN BELOW



## STRENGTH OF SCHOOL & DETAILS OF STUDENTS IN EACH SECTION

DETAILS OF SECTION WISE STRENGTH & AREA OF CLASS ROOM						
STANDARD	AREA OF CLASS ROOM m <sup>2</sup>	DIVISION/ STRENGTH			TOTAL IN STANDARD	OCCUPIED BUILDING
		A	B	C		
		JUNIOR KG	50	40		
SENIOR KG	50	41	40	40	121	PRIMARY
I	50	40	41	41	122	PRIMARY
II	50	41	40	40	121	PRIMARY
III	50	40	40	41	121	PRIMARY
IV	50	41	41	40	122	PRIMARY
V	50	40	40	41	121	PRIMARY
VI	50	40	41	40	121	SECONDARY
VII	50	41	40	40	121	SECONDARY
VIII	50	41	40	41	122	SECONDARY
IX	50	40	38	38	116	SECONDARY
X	50	41	41	41	123	SECONDARY
XI COM	50	45	NIL	NIL	50	SECONDARY
XI SCI	54	50	NIL	NIL	50	SCIENCE BLOCK
XII COM	50	46	NIL	NIL	46	SECONDARY
XII SCI	54	50	NIL	NIL	50	SCIENCE BLOCK
<b>TOTAL STRENGTH OF SCHOOL</b>					<b>1648</b>	
<b>STRENGTH GIVEN AS ON 30TH JUNE 2019</b>						



A CLASSROOM IN SECONDARY BUILDING



## FRESH AIR VENTILATION & AIR QUALITY OF CLASSROOMS

Classrooms and other facilities all have more than 25% ventilation. Uniform area of approximate 50 square metres are available in each facility. Floor plan is attached with this. [Attachment No1](#) - [Attachment No 2](#)

### CALCULATIONS SHOWING OPENABLE AREA IN VARIOUS FACILITIES

NAME OF FACILITY WITH CARPET AREA IN SQ. FEET	OPENABLE AREA IN SQ. FEET
CLASS ROOMS IN PRIMARY & MAIN BUILDING 490	192
CLASS ROOMS IN SCIENCE BLOCK 536	136
LABORATORIES 536	136
FITNESS CENTRE AIRCONDITIONED 1000	260
AUDITORIUM 3440	625
COMPUTER LABS - AIRCONDITIONED 490	112

### SPECIMEN PHOTO OF A SCIENCE BLOCK CLASSROOM



# ANTHROPOMETRIC DIMENSIONS IN CLASSROOMS 7 OTHER FACILITIES

Furniture and other fixtures of classrooms and various facilities are provided taking care of anthropometric dimensions from KG sections to Senior secondary classes and laboratories. Restrooms, Library, Reading rooms, Wellness Centre all have compliance to this point. This is well documented in separate Exhibit No. Wellness of inhabitants 1-7 <http://www.crskyn.org/igbc33.html>. All new furniture made are wood free.

## PHOTOGRAPHS OF FURNITURE IN KG TO SENIOR SECONDARY SECTIONS



WHITE BOARDS KEEP OF DUST & CAPABLE OF GETTING INTERACTIVE WITH IRIS TECHNOLOGY



CLASS ROOMS WITH 100 MBPS INTERNET ACCESS FOR E-LEARNING



NEAT & CLEAN CLASSROOMS WITH MULTIMEDIA TEACHING FACILITIES



WELL MAINTAINED PRIMARY CLASS ROOMS



## DAY LIGHT OF CLASSROOMS & ILLUMINATION OF CLASSES & OTHER FACILITIES

Classrooms and other facilities like different labs, library, reading room, activity centre all well illuminated with natural light except in air conditioned & closed facilities. Campus lighting is [migrant bird compliant](http://www.crskyn.org/igbc41.html). <http://www.crskyn.org/igbc41.html> Detailed documentation is done in [Exhibit Nos. lighting and air quality 1-3](http://www.crskyn.org/igbc40.html) <http://www.crskyn.org/igbc40.html>



### WELL ILLUMINATED CLASSROOMS

LEARNING FACILITIES WITH WOOD-FREE FURNITURE



COMPUTER LAB & LIBRARY WITH ECO-FRIENDLY PLYWOOD FURNITURE



CLASS ROOMS WITH ECO-FRIENDLY PLYWOOD FURNITURE



CLASS ROOM & COMPUTER LAB WITH ECO-FRIENDLY PLYWOOD FURNITURE



KG CLASS ROOMS WITH NON-WOOD FURNITURE & LECTURE ROOM WITH ECO-FRIENDLY PLYWOOD FURNITURE

## DAY LIGHT OF CLASSROOMS & ILLUMINATION OF CLASSES & OTHER FACILITIES

Each regularly occupied area like Classrooms, different labs, library, reading room, activity centre, staff room all well illuminated with natural light except in air conditioned & closed facilities. Each area is tested with a digital Lux Meter and photos of reading exhibited. [To see Lux Meter readings click on this link.](#)

Detailed documentation is done in [Exhibit Nos. lighting and air quality 1-2](#)

<http://www.crskyn.org/igbc40.html>. **From the tested values it is seen that 100% prescribed level is achieved**

### TESTED VALUES OF FACILITIES WITH LUX METER

SPACE	CARPET AREA IN M <sup>2</sup>	ILLUMINAION LEVEL PRESCRIBED (LUX)	ILLUMINAION LEVEL MONITORED BY LUX METER (LUX)	ACHIEVED/NOT ACHIEVED
CLASS 1-A	50	300	560	ACHIEVED
CLASS 1-B	50	300	560	ACHIEVED
CLASS 2-A	50	300	567	ACHIEVED
CLASS 2-B	50	300	567	ACHIEVED
CLASS 3-A	50	300	869	ACHIEVED
CLASS 3-B	50	300	860	ACHIEVED
CLASS 4-A	50	300	850	ACHIEVED
CLASS 4-B	50	300	856	ACHIEVED
CLASS 5-A	50	300	869	ACHIEVED
CLASS 5-B	50	300	869	ACHIEVED
CLASS 6-A	50	300	988	ACHIEVED
CLASS 6-B	50	300	450	ACHIEVED
CLASS 7-A	50	300	467	ACHIEVED
CLASS 7-B	50	300	465	ACHIEVED
CLASS 8-A	50	300	469	ACHIEVED
CLASS 8-B	50	300	470	ACHIEVED
CLASS 9-A	50	300	419	ACHIEVED
CLASS 9-B	50	300	420	ACHIEVED
CLASS 10-A	50	300	425	ACHIEVED
CLASS 10-B	50	300	425	ACHIEVED
CLASS 11-S	54	300	586	ACHIEVED
CLASS 12-S	54	300	552	ACHIEVED
CLASS 11-C	50	300	450	ACHIEVED
KG CLASSES	100	300	560	ACHIEVED
CLASS 12-C	50	300	450	ACHIEVED
LIBRARY	100	300	476	ACHIEVED
LAB-PHYSICS & BIO	108	300	885	ACHIEVED
LAB- CHEMISTRY	50	300	513	ACHIEVED
FITNESS CENTRE	100	300	600	ACHIEVED
COMPUTER LABS	100	300	425	ACHIEVED
STAFF ROOMS	100	300	545	ACHIEVED
OFFICE BLOCK	90	300	560	ACHIEVED
NCC OFFICE	50	300	540	ACHIEVED
WELLNESS CENTRE	50	300	450	ACHIEVED
AUDITORIUM	320	300	350	ACHIEVED
ACTIVITY ROOM	50	300	560	ACHIEVED
TOTAL REGULARLY OCCUPIED AREA	2426	% OF REGULARLY OCCUPIED AREAS ACHIEVED PRESCRIBED ILLUMINATION LEVEL = 100%		TOTAL AREA ACHIEVED



## TOXIN FREE ENVIRONMENT

The School Management is committed to keep a toxin free environment. The school is painted last in 2018-19 both exterior and all interiors with [low VOC Asian Paints & Dulux Paints](#) confirming to Flat Top Coat and Non-Flat Top Coat applicable standard GS-11 Interiors are painted with Tractor Emulsion-Smooth wall finish & interior paint & exteriors with Apex Ultima Weather proof exterior emulsion both comply to the green standard. [Brochure of Asian Paints](#) is attached with this- Attachment No.14 The original Bills are available with the school accounts department and can be varified. The certificate issued by vendor is given below:

### CERTIFICATE ISSUED BY VENDOR OF ASIAN PAINTS



## DUST FREE ENVIRONMENT

The School Management is committed to keep a dust free environment by using KORES/DOMS brand dust less chawks on green boards. A good number of classes use only white boards with markers and no scope for dust. All the classes are digitalised classes with a smart environment that minimises the use of chawks. The classrooms are well documents in [Exhibit Nos. dust control measure 1-2 documented in <http://www.crskyn.org/igbc42.html>](http://www.crskyn.org/igbc42.html) School also has minimised dust in various facilities by total digitalisation. All classrooms are smart with 100 mbps connectivity and smart devices as documented in [Exhibit Nos. Digital compliance & paperless campus 1-2 <http://www.crskyn.org/igbc50.html>](http://www.crskyn.org/igbc50.html)

### SPECIMEN PHOTOS OF DUST FREE CLASSROOMS WITH WHITE BOARDS/DIGITALISATION



### SPECIMEN PHOTOS OF DUST FREE CHALKS USED IN CAMPUS



## EXHAUST SYSTEMS AT DIFFERENT FACILITIES

The School has adequate exhaust systems for various facilities like canteen, Exhaust Fans of different dimensions are used at various facilities like Laboratories and Washrooms. These are well documented as shown below:

### FACILITIES WITH GOOD EXHAUST SYSTEMS



WASHROOMS EQUIPPED WITH GOOD VENTILATION AND EXHAUST FANS



LADIES WASHROOMS EQUIPPED WITH GOOD VENTILATION AND EXHAUST FANS



WASHROOMS FOR SENIOR GIRLS & BOYS EQUIPPED WITH GOOD VENTILATION AND EXHAUST FANS



WASHROOMS FOR SENIOR GIRLS & BOYS EQUIPPED WITH GOOD VENTILATION AND EXHAUST FANS



## BUILDING FLUSH OUT

School maintains a routine Flush-out schedule after every painting and fogging. Generally before the re-opening after each vacation a one week flush out is observed. In case of paintings a flush out period of 10 days are observed, despite using totally eco-friendly materials [low VOC paints confirming to standards](#). All doors and windows kept open during this period and exhaust fans kept on wherever available.

### DECLARATION LETTER ON FLUSH OUT

## CENTRAL RAILWAY SEC. SCHOOL & JR. COLLEGE

(A SR. SECONDARY SCHOOL AFFILIATED TO CBSE, NEW DELHI)

Murbad Road, Kalyan (W), Dist. Thane, Maharashtra. 421 301.



Tel. & Fax :  
0251-2212888  
0251-2327347  
63230, 31 (Rly.)

Email :  
principal@crskyn.org  
crskyn1918@gmail.com



Affiliation No.: 1180013

Website : [www.crskyn.org](http://www.crskyn.org)

School Code : 06883

100 YEARS OF EDUCATIONAL EXCELLENCE

No. CRS/SCH/KYN/CERT/IGBC/19-3

Date: 21.6.2019

### DECLARATION FROM OWNER ON BUILDING FLUSH OUT

It is certified that Building flush out is carried out mandatorily after painting of the school in general or specific facility in particular after repairs or renovations. Low VOC paints complying with green standards are only used for painting school building. Flush out is routinely done during summer vacations for 10 days and during Diwali vacation for 5 days. The last Flush out was conducted during the second week to 3<sup>rd</sup> week of June 2019.

Jacob Thomas,  
Principal.





## TOILET FACILITIES , HYGIENE & SANITATION

School toilets are cleaned two to three times during working days. Each section is assigned to a designated person. [A log book is maintained](#) by the House Keeping Committee. Head of House Keeping routinely visits and check the cleanliness personally. Senior lady staff is assigned to oversee the house keeping. Principal personally inspects and conduct random surveys on the cleanliness of rest rooms from stakeholders as well. Eco friendly cleaning materials are provided to clean. At multiple points Top quality [Waterless Urinals of Hindware](#) make are installed. Hand wash is provided in all rest rooms and hangers and wash basins are provided complying to age of students. Floor plan is given as [attachment No 1-2](#) Log Sheet of Restroom maintainance is given as [Attachment No.15](#) School toilets are well maintained and documented in [Exhibit Nos. Wellness of inhabitants 4-5](#) <http://www.crskyn.org/igbc14.html> School has excellent sanitation facilities as shown in [Exhibit Nos. Hygiene & Sanitation 1-3](#) <http://www.crskyn.org/igbc45.html>

### SPECIMEN PHOTOS OF WELL MAINTAINED REST ROOMS IN SCHOOL



## DRINKING WATER FACILITIES

School maintains a [routine check up of drinking water facilities](#) and all [water purifiers](#) are well maintained through professional services. Designated staff maintains a log book on routine checks like TDS and qualified professional services are outsourced for water quality checks. Reports are given as [Attachment No.23](#)

### SPECIMEN PHOTOS OF WELL MAINTAINED DRINKING WATER & HAND WASH FACILITIES



COMMON HAND WASH & PURE DRINKING WATER FOR VISITORS AT SCHOOL ENTRANCE



PURE DRINKING WATER FOR SENIOR STUDENTS



RO-UV TREATED SAFE DRINKING WATER FACILITY IN ALL SECTIONS WITH SAVE WATER SIGNAGES



HAND WASH AT PRIMARY & PURE DRINKING WATER & HAND WASH AT PLAY GROUND



SENIORS' HAND WASH & HAND WASH FOR SMALL KIDS WITH SIGNAGES IN KG SECTION





## ACCESS TO HEALTHY FOOD

School maintains a good and spacious Canteen for providing quality food at subsidised rates to students. A certified Vendor is engaged to maintain the school canteen. Food quality inspections are done by Municipal authorities and also by qualified Medical Professionals from Railway's Medical Department. List of food items served are given below. Declaration form owner is attached as [Attachment No.20](#)

### LIST OF FOOD ITEMS SERVED IN CANTEEN

1. IDLI & SAMBAR/CHUTNY
2. DOSA
3. UPMA
4. USAL PAV
6. POHA
7. POORI BHAJI
8. VEG PULAV
9. TEA & COFEE & MINERAL WATER
10. BUTTER MILK

### PHOTO OF WELL MAINTAINED SCHOOL CANTEEN



## SPORTS AMENITIES

School the best of sports facilities in campus through professionally qualified personnel and the best of amenities. We conducts special camps for **coaching and daily morning training sessions** other than the routine physical education activities. As a result shcool children **have become champions in district, state and national level sporting events**. Recreational facilities are shown in **Exhibit Nos. Wellness of inhabitants 1- 7** <http://www.crskyn.org/igbc33.html>

### DETAILS OF INDOOR & OUT DOOR GAME FACILITIES

#### INDOOR GAMES

1. CHESS
2. CARROM
3. SHUTTLE BADMINTON
4. **WEIGHT LIFTING**
5. **BOXING**
6. **KARATE**

#### OUT DOOR GAMES

1. **FOOT BALL**
2. VOLLEY BALL
3. THROW BALL
4. CRICKET
5. **KABBADI**
6. KHO KHO
7. **TRACK EVENTS**

### PHOTOS OF SCHOOL HEALTH & FITNESS CENTRE





## SPORTS AMENITIES : DEDICATED PLAYGROUND

School Playground is 125 metres X 45 metres (5625 square metre) area. It has a professional standard Box cricket pitch for net practice, Kabbadi Pitch, Kho=Kho pitch, athletic pitch & running taracks that are well maintained. Recreational facilities are shown in Exhibit Nos. Wellness of inhabitants 1- 7.

School is also tied up with Central Railway's Mumbai Division Sports Association, whose sports complex with a playground size of 200mX 80m (16,000 square metre) is made available to school as the need arises.

Documented in <http://www.crskyn.org/igbc39a.html>

There are other arrangements also to give 7 Acres of railway land near school -Attachment No.28 for enhancing sports amenities. Letter confirming tie-up for bigger play ground is shown in Attachment No. 29. Arrangement for additional land is noted in Inspection Note of General Manager-Attachment No.28, who is the Apex Officer of Central Railways.



SCHOOL PLAYGROUND



NET PRACTICE PITCH

## ORGANIC FERTILISERS & PESTICIDES

School is committed to [Natural Farming](#), a famous method based on native cow's dung and urine as developed by Dr. Subhash Palekar, the founding father of Natural Farming/Zero Budget Farming. Under this method a manure called '[Jeevamrut](#)' is made in school and applied to various plants keeping the virginity of soil intact. Besides this dry leaves from campus is collected and processed for [leaf moulding](#) which is also a patently known manure for good health of plants. Few organic manure are also bought from vendors like Abtech who are reputed for organic manures. Liquid manure from bio-digester of the campus is also used as a manure. Pesticides are not used in campus, we make inhouse organic liquids based on tobacco,Neem, Garlic etc for spraying on plants as per requirement. [Manufacturers brochure of Abtech for their organic](#) manures is shown as [Attachment No. 17](#)

### JEEVAMRUT PRODUCTION UNIT OF SCHOOL FOR NATURAL FARMING



### ORGANIC FERTILISERS USED IN CAMPUS MANUFACTURED BY ABTECH





## GREEN HOUSE KEEPING

As an eco-friendly school we use only organic and eco-friendly cleaners for all house keeping work. Bio degradable bags are only used in compost bins/dust bins. All types of cleaners are eco-friendly. Waste is segregated into **Green, Blue & Red category** in campus itself and disposed accordingly. Students are also trained to follow green house keeping. At multiple locations high quality **waterless urinals** of Hindware make are installed. This not only saves water but also helps in better housekeeping management.

### SPECIMEN OF THE CLEANING MATERIALS USED IN SCHOOL



### SPECIMEN OF WATERLESS URINALS USED IN SCHOOL



## GREEN EDUCATION

Committee : The school has well defined committee called “Environmental Club” with a Co-ordinator, six teachers and one assisting staff:

Teachers are assisted by a group of senior students who guide their juniors in regular monitoring and implementation of green activities of school.

### TEACHERS

Ms. Jyoti Shrivastava( Co-ordinator)  
Ms. Pradnya Wankhede  
Ms. Charu Tailang  
Mr. R.P Pradhan  
Mr. P.S Sonawane  
Mr. J.L Bhangre  
Mr. Suresh Patil  
Mr. Pramod Saha

### STUDENTS

1. Dipesh Bhadane  
2. Pratima Prajapati  
3. Rohan Gupta  
4. Dhriti Markam  
5. Archana Tripathi  
6. Mansi Yadav  
7. Wahid Salmani  
8. Sumit Panjal

1. We have well maintained extensive garden patches covering about 57% of total area i.e about 5342 m<sup>2</sup> of the School including [Herbal garden](#), [Butterfly garden](#), [Botanical garden](#) and [Rose garden](#).  
Entire boundary wall of school is adjoined by linear patches of gardens with more than 300 species of trees, shrubs and herbs.
2. Functional [Biogas plant](#) with two digesters each fed with green waste of 7 kg per day and the biogas generated is utilised in chemistry laboratory and school canteen.
3. 50% of roof surface area of school has [water Harvesting system](#) in about 895 m<sup>2</sup> that harvest 17,52,000 litres of water per year. After covering the entire campus more than 80% of the total roof top of the school buildings will be utilised for water harvesting.
4. [Sewage Treatment Plant](#):-Treats 5000 litres of sewage per day, the treated water is supplied to gardens by [drip irrigation](#), ground moistening and selective washing of agricultural instruments, door mats etc.
5. All the garden of schools are drip irrigated.
6. Innovative Zone of [Hydroponics](#) and Wick irrigation are developed in school with about 10 species of vegetables and ornamental plants are growing successfully .The Zone has about 100 grow bagged plants.
7. [Solar Panel installed](#) on Science Block generates 50 KiloWatt of electricity.
8. No Plastic Zone:- Entire school campus is plastic free zone.
9. [Project Cotton Bags](#): Cotton bags stitched by teachers and students as part of skill development are distributed to every students and have reached every home of school family to avoid use of plastic bags. 2000 cotton bags have been distributed.
10. Turfs: About 30 m<sup>2</sup> area is turfed which prevents soil erosion.
11. All the Electrical gadgets used in school building are [energy saving](#).
12. [Decomposition pit](#) – All the green waste generated in school campus is decomposed in decomposition pit and the compost formed is used in gardens. Vermicomposting is also successfully done.

### Strategies adopted for implementation:

1. All the gardens are maintained and updated by teachers, group D staff and students with no full time gardening professional engaged.
2. Feeding of Biogas plant done by the green waste generated in school canteen ,brought by teachers and students from their homes and from near by vegetable shop.
3. Water [Harvesting System](#), Sewage treatment plant , [Drip irrigation network](#), Zones of [hydroponics](#) and [wick irrigation](#), Solar Panel , Turfs , Electrical gadgets are properly functional and regularly maintained .



## GREEN EDUCATION

### Guidelines and Examples

Objective: To develop a feeling of concern for nature and eco friendliness among students and best utilization of existing assets in natural style.

Guidelines followed at operational level:-

- A) Energy saving measures: 1. Solar Panel 2. Biogas plant.
- B) **Water Conservation: Rain water harvesting system.**  
Leaking taps and broken pipelines are immediately repaired.
- C) Waste Management: Separate disposal of bio-degradable, non bio-degradable and e-waste with separate sets of dustbins fitted in the campus. Utilization of biodegradable waste in biogas plant and STP.
- D) Eco friendly commuting practices-
  1. Distribution and use of cotton bags made in school to every student and formal guests.
  2. Reuse of one sided papers for writing and printing.
  3. For informal get-togethers of school family only reusable metallic/glass/fibre crockery is used avoiding thermocol and plastic.

### MONITORING OF GREEN FEATURE IMPLEMENTED:

Regular maintenance and update of all the eco-friendly assets of school, gardens by teachers and students.

Gardens watered regularly everyday, weeded, supplied with manure and organic fertilizers as and when required for the nourishment of plants and soil.

### Guideline-2

1. **Gardening by teachers and students** in zero periods, physical education periods and by teachers in their free periods, after school hours and during holidays.
2. **e-waste collection** is done in government authorised e-waste bins and sent to Kalyan Dombivali Municipality Corporation.
3. Awareness campaigns to nearby communities on importance of health, nutritious food and hygiene;
  - Regular health check up of all the students is done in the month of August every year and that for the teachers in the month of February every year.
  - **Vaccination programme for Measles and Rubella** for all students in the month of November 2018 was done successfully covering more than 90% students.
4. **Biodiversity conservation :-**
  - I. **Plantation programme at Budha Vihar, Ashok Nagar**, Railway Colony, Kalyan by 136 students and 15 teachers of school on 28/7/2018 where more than 1000 saplings of tree species were planted.
  - II. There are more than 300 species of plants surviving successfully in school campus.
  - III. The artificially developed flora has been an obvious generative source of attraction for successful survival of fauna too covering about 60 species of butterflies.
  - IV. **Artificial nests** have rejuvenated species of **pigeons, sparrows**, cuckoos, parrots, humming birds and other nectar sucking birds. This has promoted their natural nest building on growing trees also.
  - V. A large number of natural Bee-hives are also observed in the campus.
  - VI. Five to six varieties of frogs are often seen.
  - VII. **Reptilian diversity** has also increased covering lizards, **chameleons** and snakes which seem to be very human friendly.
  - VIII. The gardens have artificially made lotus ponds with six species of lotus where tortoises and turtles are also successfully flourishing with mosquito larva eater guppy fishes.
  - IX. More than 150 earthen pots are kept in all the gardens for meeting the water requirement of birds throughout the year. They are regularly cleaned and filled everyday.
  - X. The School has an **aquarium of capacity of 1000 litres** with five varieties of fishes.

## GREEN EDUCATION

### 5. Reduction in environmental pollution:–

- I. Clean and green environment of school has no plastic pollution, segregated waste disposal facility , utilization of biodegradable waste , trees growing near school boundary safeguard the campus from air pollution and noise pollution. The plants like [Saptaparni](#), Peace- lily, Song of India, [Areca palm](#), [Peepal](#), Money plant and Sanseveria known for their high efficiency of oxygen production have improved oxygen concentration in school environment.
- II. Zero soil pollution because only manure and organic products are used for soil enrichment and pest control. Weeding is done either manually or mechanically, no chemical weedicides are used.
- III. The formal guests invited in school are given [green welcome](#) by gifting the potted [plants by little angels of the school](#) along with the cotton bags made by students for skill development.
- IV. For informal get togethers of school family only reusable metallic/glass/fibre crockery is used avoiding thermocol and plastic.

### AWARENESS PROGRAMS ON GREEN EDUCATION

1. Visit of senior scientists of ICMR from National Institute Virology, Mumbai unit on 24/4/2018.
  - i. Dr. Shailesh D Pawar
  - ii. Dr. Shyam Sunder Nandi
  - iii. Dr.V. K. Saxena
  - iv. Dr. M.C. Mohanty

The scientists had an interactive program with students on health and sanitation, water conservation and Eco- friendliness.

2. Interactive programme for senior students on ecotourism in india and save environment on 25/9/2018 by Mr.Abhinav Gupta of Indian Railways Catering and Tourism Corporation Limited (IRCTC).
3. Interactive Program for parents of students on “Health Awareness & Vaccination” on 29/10/2018 by Ms. Priyanka from KDMC, Dr. Samruddhi Paediatrician, Divisional Railway Hospital Kalyan and Dr. Neelam Padwal-Dietician,DRH,Kalyan.

### 2. Educational Tour:

- i. Visit to Matheran on 20/12/2018 by all the students class-X A & B along with their teachers.
- ii. Visit of 84 students of class VII to IX to an Exhibition” World of Plastic” at Regency Anantam ,Golivli, Dombivali organised by Mr. Santosh Davakhar and team.
- iii. Visit and Participation in “ Photography and Painting Exhibition of Cultural Heritage of Railways” on 23/2/2019 with 25 students and three teachers, the school team bagged a cash award of Rs.15,000/-(Fifteen Thousand only).



School uses bio-degradable garbage bags in place of plastic bags to keep the campus a zero plastic zone in all respects. These bags are mainly used for inserting in trash bins wherever required. The pictures of the bags used are given above.



## GREEN EDUCATION

### ENVIRONMENT RELATED ACTIVITIES CONDUCTED:-

1. Swachhata hi seva fortnight – organised in school from 15/9/2018 to 2/10/2018 covering :
  - a) Administration of Swachhata Shapath to all teachers and students.
  - b) Shramdaan by teachers and students for cleaning of all the classroom, cupboards, corridors and gardens covering entire school campus.
2. Drawing and Essay writing competition organised by Women Social Service Committee and Divisional Cultural Academy of Central Railway on the topic “Gandhiji's life and work” on 9/9/2018 and 16/9/2018 respectively in which more than 70 students actively took part.
3. Competition organised in school by Indian Railways Catering and Tourism Corporation Limited, on 25/9/2018 for Paryatan Parv.
  - Debate ,Extempore and quiz on topic “ Ecotourism in India”.
  - Drawing competition on 27/9/2018 on topics - Think Green, Swachha Bharat, Eco tourism, Incredible India and Save Environment.
1. A)Participation of 25 scouts and 25 guides with four incharge teachers in Swachhata Abhiyan at CSMT, Mumbai on 2/10/2018- 150<sup>th</sup> Birth Anniversary of Bapu.  
B) Cleaning of auto stand of Kalyan Railway Station by 18 boys of school with two incharge teachers.
2. **Painting project of 12 car Local train:** 20 students and two teachers with Principal painted and decorated a 12 car local train at Kalwa Car Shed within 9 days from 22/9/2018 to 30/9/2018 that was inaugurally run on 150<sup>th</sup> Birth Anniversary of Bapu as “Swachhata Local”.
3. **Painting on inner and outer side of School boundary wall, Kalyan Railway station and CSMT Railway station.**  
**The paintings of boundary wall were judged by DRM, Mumbai** and students were awarded.
4. Painting competition of Energy Conservation 2018 organised on 17/10/2018 by BEE-Bureau of Energy Efficiency with participation of 57 students.
5. Poster Making Competition on 29/10/2018 on “ Awareness and Vaccination program of Measles and Rubella” that was followed by the **Vaccination program of all the students** of school in November 2018 with success rate of 92%.
6. Inter school Drawing Competition- “Art Mela” organised on 6/12/2018 at National Urdu High School, Kalyan on Swachha Bharat where 25 students participated with two incharged teachers.
7. Health and Hygiene Program for girls of class-VI and VII and their mothers on 2/2/2019.
8. Preparation of “ Flora of Railway School” by 11 students class-XII Science covering all the plant species growing on school campus as investigatory project .

### **THE GREEN ACTIVITIES ARE DOCUMENTED IN EXHIBIT No. GREEN ACTIVITIES 1**



**Brinjals grown in Hydroponic set up in School Office Frontage to promote soil less farming**

## SAFETY & SECURITY OF INHABITANTS

Central Railway School campus is a [totally safe and secure campus](#) for all. While providing excellent educational services, the management is committed towards the safety of students in all respects.

Bio-metric attendance system is implemented in the school. The presence of the student in class is [marked through School App](#) by class teachers and a real time message is sent to parents on entry to school and exit from school.

Good two way communication is ensured through a digital platform which is provided free of cost to parents.

The safety and [Security features are documented through Exhibit Safety of inhabitants1-2](#)  
<http://www.crskyn.org/igbc48.html>



BIOMETRIC ATTENDANCE & MESSAGING SYSTEM TO HELP PARENTS



BIO-METRIC ATTENDANCE AT MULTIPLE LOCATIONS



## EXEMPLARY PERFORMANCE & INNOVATIVE PRACTICES

Central Railway School Kalyan is reputed for its [environment](#), which is published by United Nation's Bio-Diversity Convention in 2018. The [bio-diversities](#) are well documented in [school website](#) as well. The School was adjudged at par with the Best Private School in India by NDTV through a survey conducted on parameters of Health, Hygiene and Sanitation in year 2018.

Ministry of HRD, Government of India in its survey on Swachhata in school has awarded Five Star status to the school with 93% marks on a 100 point scale in 2018.

In IT enabled education School has bagged the [First prize for Excellence in ICT education](#) from Honourable President of India among all schools in India with Tropies and a cash award of Rupees Nine Lakhs thus set a trail blazing model for any school in India to follow.

The [Farming methods used in campus is one of its kind like Natural Farming that keeps the virginity](#) of soil free from all toxins. A cow dung based liquid called Jeevamrut is prepared in campus facility and served to all plants which keeps plants healthy and capable to survive in the worst heat of summer and give maximum yield. [A normal plantain on this type of farming has given a yield of more than 50 kilograms per plantain](#), which is a record in this suburban area.

The Irrigation system devised through innovation for [Wick irrigation is](#) one of its kind and a model for water saving initiatives.

The Holistic approach of campus is a model for anyone. [Animals, birds, fish, tortoise, snakes, honey bees, butterflies, dogs, cats](#) all have its place in campus and live in harmony with one another, perhaps a rare scene in any school campus. This practice has shown a wonderful result in promoting peace and tranquility in the minds of students and shown a sharp decline in aggressive and destructive behaviour prevailed among them earlier.

To promote love for nature students are gifted with seed filled eco-friendly pencils attached with a bulb of seeds so as to help them grow it at home.

Children are encouraged to bring a plant rarely found in this locality while coming back from their native places after vacation.

The revolution against use of plastic has found a unique way in this campus where children have made more than [2000 cotton bags in our skill development centre and distributed free of cost to each parent](#) in motivating them to restrain from the use of plastic at homes.

The visitors to campus have always attested that the [micro-environment in campus](#) is 3 to 5 degree cooler than outside.

BEHTAR INDIA CAMPAIGN: SCHOOL REPORT CARD					
How the behtar india campaign's point system works and what winners get when they win? Click here to know					
CENTRAL RAILWAY SCHOOL					
SCHOOL NAME	STATE	CTY	STATE	REGIONAL RANK	ALL INDIA RANK
CENTRAL RAILWAY SCHOOL	KALYAN	KALYAN	MHARASHTRA	11	43
STAGE 1: BEHTAR SWACHHATA	TOTAL MONEY COLLECTED: ₹ 500			POINTS: 38	
STAGE 2: BEHTAR WACHHATA				POINTS: 78	
STAGE 3: BEHTAR VATAWARAN	TOTAL SAPLINGS PLANTED: 4000			POINTS: 76	
				TOTAL POINTS: 378	

# EXEMPLARY PERFORMANCE & INNOVATIVE PRACTICES



MHRD | Swachh Vidyalaya  
Puraskar 2017-18



## Final Submission

U-DISE : 272060109

School Name : CENTRAL RAILWAY CBSE BOARD

Final Submission Date : 30/10/2017

Thank you for participating in the Survey

Score	Percentage	Rating	Remarks
63 / 100	93%	★★★★★	Excellent Keep it up!!

### Section Wise Score

Categories	Score	Percentage	Rating	Remarks
Water :	11 / 22	95.45%	★★★★★	Excellent Keep it up!!
Toilet :	27 / 28	96.43%	★★★★★	Excellent Keep it up!!
Handwashing With Soap :	18 / 20	90%	★★★★★	Excellent Keep it up!!
Operations And Maintenance :	15 / 15	100%	★★★★★	Excellent Keep it up!!
Behavior Change And Capacity Building :	12 / 15	80%	★★★★	Very Good !!

## SCORE CARD BY MHRD, GOVT OF INDIA FOR EXEMPLARY PERFORMANCE



## WORKING MODELS OF HYDROPONICS AND SOILLESS FARMING IN SCHOOL



## WICK IRRIGATION MODEL IN SCHOOL

## PENCILS WITH SEED BULBS DISTRIBUTED TO STUDENTS IN SCHOOL

School uses bio-degradable garbage bags in place of plastic bags to keep the campus a zero plastic zone in all respects. These bags are mainly used for inserting in trash bins wherever required. The specimen picture is given aside.





## EXEMPLARY PERFORMANCE & INNOVATIVE PRACTICES

On several parameters our performance and achieved targets are above the threshold specified in IGBC guidelines. The school is an ideal example of Team Work.

1. Campus has 52% vegetated greenery which is above the benchmark and plantation is done in such a manner that soon this will cross 85%
2. Minimum exposure to sun Non-roof area is 57% where as roof area is **100% white coloured roof** this is above benchmark.
3. Rain water harvesting done is above benchmark and in near future it will be 100%. It is also worth mentioning that two main toilet blocks of school work straight on harvested rain water for nearly 80 days in an year.
4. Water efficient plumbing is **100% and plumbing fixtures** are compliant to water saving norms.
5. Turf design and landscaping are exemplary and water efficient. There are three water bodies in campus other than **pits made for water harvesting. These are lotus ponds** designed in a way to percolate so that root irrigation is possible through these in monsoon times. Hardly 8% of the rooftop water flow to municipal drains rest of the monsoon water is harvested in campus itself.
6. Grey water treated is used 100%. Calculations show that Total requirement of water per annum for flushing and landscaping is 39,59,200 liter per annum, where as our present availability of harvested rainwater and treated grey water is 33,92,000 litre per annum excluding rainwater storage above main toilet blocks, adding that our water dependency on potable municipal water is zero for such uses and this is an exemplary performance in the current Indian scenario.
7. On energy front we are much ahead of the threshold. 100% lighting fixtures including airconditioners and fans are energy efficient. **A comparison of the energy bills before replacement of lighting fixtures and after replacement** show this telling impact. In 2017 July the energy bill was Rs. 193,920 whereas after switching over to energy saving fixtures the energy bill of May 2017 is only Rs. 40,260 which shows a saving of 80% in energy.
8. Onsite energy generation also is much above the threshold as we have **50 KW onsite energy** generation, which is much above our own consumption, resulting surplus power sent to grid and school is thus totally on green energy.
9. Organic and other **waste management** is also exemplary and above benchmark.
10. **Day lighting is excellent** and above benchmark.
11. **Each plant in the campus is named** and web pages are created for students' information. All bio-diversities are archived like this for training and education purpose.
12. School gardens have a collection of more than 200 medicinal plants, we have rare plants like **Rudraksha, Camphor, Loban, Deva Mahakota, Peanut Butter tree, Passion Fruits**, nearly 15 varieties of bananas, 20 varieties of Mangoes and different varieties of Jack fruits including the high yield **Vietnam Early that fruits in 18 months of age**. The School campus is a magnificent sight for any aspiring student and students do projects on the rich **bio-diversities of the school**.
13. The water saving project of the campus which is almost totally **drip irrigated** and **wick irrigated** to inspire students about the value of water.
14. **Natural farming** techniques adopted are exemplary and keeps the virginity of the soil and make it high yielding. Modern methods of farming like hydroponics shows high yield and inspire the students to try these at homes without soil. The just taken two pictures of the Red Banana of natural farming in campus and a blooming brinjal on hydroponics are live examples of these more than successful methods of community farming in school.



BLOOMING BRINJAL ON HYDROPONICS



RED BANANA aka RAKT KADALI HARVESTED ON NATURAL FARMING

## EXEMPLARY PERFORMANCE & INNOVATIVE PRACTICES

Many things we do in the campus of Central Railway School Kalyan are walking an extra mile than the mandatory requirements. These are ideated and implemented voluntarily to make the campus a sought after destination for learning.

A dignified and safe environment for learning is thus achieved. The demand for admissions increased though it's a campus basically catering the wards of railway employees. This culminated in Railway Board (Ministry of Railways) sanctioning two more sections to school in 2019, which is a rare achievement pan India in recent past.

### SCHOOL HEALTH PROGRAMME:-

Under this every year School Management conducts a comprehensive Health Check Up programme covering the entire students under the supervision of qualified medical professionals from Railways Medical Department. A report in individual child is created and in cases of follow-up of advance medical care, the same is provided through well equipped Railway Hospitals. A school Health Register is maintained by a team of Class Teachers. [Details of which is given in Attachment No. 18](#)

### DISASTER MANAGEMENT & ASSISTANCE:

School's Alumni have been actively involved in re-building Kerala after the previous years' flood, they have built houses for many in association with other NGOs. The school children and teachers contributed a sum of Rs. One Lakh Fifty Thousand towards Chief Minister's Relief Fund.

The Best Practices are documented in [Exhibits: Best Practices 1-11 http://www.crskyn.org/igbc52.html](http://www.crskyn.org/igbc52.html) The performance of on parameters of environment, energy saving, micro-environment, etc are far ahead of benchmarks. [The Bicycle movement](#) of the school is also unique in empowering girls and making an environment conscious community. The United Nations appreciated Bio-diversities of the school is a role model for Indian schools. The water saving initiatives like [wick irrigation](#), [soil-less farming](#) of the school are also above bench mark.

[School children beautifying their own campus using own ideas](#) and imagination is also a best practice that makes the educational ambience better and send positive messages to community. See Best Practices as given in <http://www.crskyn.org/igbc52.html>

The well maintained School Health Check up programme followed by monitoring and follow-up is also normally not found in school scenario.

[Making Best out of Waste](#) and condemned materials is one thing any one can follow to save money and environment. The [well balanced Flora and Fauna of campus](#) is a quintessential example of holistic approach in education. Last but not the least, the entire documentation of this project is done in a totally digitalised way that it does not cause any harm to environment.



**SCHOOL TEAM WITH HON. CHIEF MINISTER OF KERALA SHRI PINARAYI VIJAYAN ON THEIR VISIT TO HELP THE FLOOD AFFECTED**



## ANNEXURES/ATTACHMENTS

1. BUILDING PLAN PRIMARY & SCIENCE BLOCK
2. BUILDING PLAN SECONDARY SECTION BUILDING
3. LIST OF PLANTS & TREES AVAILABLE IN CAMPUS
4. CAMPUS LAY OUT
5. RAIN WATER HARVESTING PROJECT REPORT
6. BROCHURE OF REST ROOMS FITTINGS- HINDWARE
7. VENDOR CERTIFICATE ON WATER SAVING PLUMBING FITTINGS
8. STP BROCHURE
- 9.ENERGY SAVING FANS' BROCHURE
- 10.AIRCONDITIONERS' BROCHURE- VESTAR & HITTACHI
- 11.ENERGY BILLS FORE LIGHTING FIXTURES REPLACEMENT & AFTER REPLACEMENT
12. CERTIFICATE ON HALON FREE FIRE SUPPRESSING SYSTEM
13. E-WASTE COLLECTION CERTIFICATE
14. LOW VOC PAINTS CERTIFICATE/ BROCHURE OF ASIAN PAINTS
15. REST ROOM CLEANING LOG SHEET
16. AREA STATEMENT OF INTERIOR SPACES
17. BROCHURE ON ORGANIC MANURE/PESTICIDES OF ABTECH
18. SCHOOL HEALTH REGISTER & HEALTH CARD
19. ONSITE RENEWABLE ENERGY PRODUCTION CERTIFICTE
20. DECLARATION ON FOOD SERVED IN SCHOOL CANTEEN
21. STATEMENT SHOWING NUMBER OF LIGHTING FIXTURES WITH WATTAGE
22. DECLARATION OF OWNER ON REFRIGERANTS AND FIRE SUPPRESSORS
23. WATER QUALITY TEST REPORT
24. WATER BALANCE SHEET
25. SINGLE LINE DRAWING SHOWING THE INSTALLED ENERGY METERING SYSTEM
26. FIT FOR OCCUPANCY CERTIFICATE
27. CERTIFICATE ON ECO-FRIENDLY FURNITURE MATERIALS
28. GENERAL MANAGER'S INSPECTION NOTE
31. PROJECTOR BROCHURE
29. LETTER ON TIE UP FOR PLAY GROUND
30. GREEN POLICY DECLARATION



## DETAILS OF WEB PAGE EXHIBITS AS LINKS

1. SOIL CONSERVATION 6 PAGES <http://www.crskyn.org/igbc3.html>
2. MICRO ENVIRONMENT 6 PAGES <http://www.crskyn.org/igbc8.html>
3. WELLNESS OF INHABITANTS 7 PAGES <http://www.crskyn.org/igbc14.html>
4. INCLUSIVE EDUCATION <http://www.crskyn.org/igbc46.html>
5. WATER CONSERVATION 7 PAGES <http://www.crskyn.org/igbc14.html>
6. ENERGY CONSERVATION 4 PAGES <http://www.crskyn.org/igbc21.html>
7. EFFECTIVE WASTE MANAGEMENT 2 PAGES <http://www.crskyn.org/igbc25.html>
8. HERITAGE & RETROFIT INITIATIVES 6 PAGES <http://www.crskyn.org/igbc27.html>
9. AIR QUALITY & LIGHTING 2 PAGES <http://www.crskyn.org/igbc40.html>
10. DUST CONTROL 2 PAGES <http://www.crskyn.org/igbc42.html>
11. DIGITAL COMPLIANCE & PAPERLESS CAMPUS 2 PAGES <http://www.crskyn.org/igbc50.html>
12. HYGIENE & SANITATION 3 PAGES <http://www.crskyn.org/igbc45.html>
13. GREEN ACTIVITIES <http://www.crskyn.org/igbc63.html>
14. SAFETY OF INHABITANTS <http://www.crskyn.org/igbc47.html>
15. BEST PRACTICES 11 PAGES <http://www.crskyn.org/igbc52.html>
16. PARKING FACILITIES <http://www.crskyn.org/igbc46a.html>
17. DEDICATED ADDITIONAL PLAY GROUND 3 PAGES <http://www.crskyn.org/igbc39a.html>
18. RAIN WATER HARVESTING 2 PAGES <http://www.crskyn.org/igbc17a.html>
19. WATER USE MONITORING <http://www.crskyn.org/igbc17b.html>
20. ECO FRIENDLY WOOD BASED MATERIALS <http://www.crskyn.org/igbc38a.html>
21. DAY LIGHTING- LUX METER READINGS <http://www.crskyn.org/igbc40a.html>

To see all pages in one section please click the next page button on the bottom of that web page section. There are 82 web pages on go green section of school web site

<http://www.crskyn.org/igbctitle.html>

These web pages are specially created for paperless documentation purpose of IGBC green school certification for effortless access to all stakeholders.

Thank you for browsing.

Best Regards

Jacob Thomas,  
Principal,

Central Railway School & Jr. College, Murbad Road, Kalyan West, Thane Dist., Maharashtra-421301