A.Y.DADABHAI TECHNICAL INSTITUTE, KOSAMBA
DEPARTMENT OF CIVIL ENGINEERING

A

Report on Industrial Visit at
MONARCH-BUSINESS HUB, Surat on 10/02/22

For

Diploma 6th Semester

Organized by

DEPARTMENT OF CIVIL ENGINEEIRNG

A.Y.DADABHAI TECHNICAL INSTITUTE, KOSAMBA.

(Batch-2019)

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Site visit is considered as one of the tactical methods of teaching. The main reason behind this: it lets students to know things practically through interaction, working methods and employment practices. Moreover, it gives exposure from academic point of view. Main aim of industrial visit is to acquaint the students about practical working environment. Through industrial visit students are acquainted about new technologies and knowledge.

Department of Civil Engineering, A.Y.Dadabhai Technical Institute, Kosamba organized industrial visit on Green Building at Monarch-pal, Surat on 10th February, 2022 for Diploma Civil engineering students. This visit was planned as part of curriculum requirement of the subject of Construction quality control & Monitoring & Building Services. It was organized with the prior permission and guidance of honorable Director Mr. M.M.Dalchawal sir. Further, it would not been possible without sincere efforts of Mr. B.J.Mahida, I/C Head of Civil Engineering Department. Ms. Dharti Master & Mr. Bharat Shinde, Subject Teacher coordinated and guided the students during the visit. Faculty members and students of Diploma Civil Engineering took great interest and made this visit a grand success.

Schedule of Visit:

TIME		LOCATION
-	10:15	At Monarch Gaurav Path, Pal Gam , Surat
10:30	11:00	Give a presentation of Monarch Project in detail by Mr. Binod Patel (Project Manager)
11:00	12:30	Monarch Building Site visit
12:30	12:45	Group photo

Total no. of students: 40 (Diploma 6th Semester)

Faculty Organizer: Mr. B.V.Shinde, Ms.Dharti Master

BUILDING SERVICES

Building services are the systems installed in buildings to make them comfortable, functional, efficient and safe. Everything inside a building which makes it safe and comfortable comes under the title of "Building Services".

Building services might include:

- Energy supply – gas, electricity and renewable sources such as solar, wind, geothermal and biomass
- Heating and air conditioning
- Water supply, drainage and plumbing
- Natural and artificial lighting
- Ventilation and refrigeration
- Escalators and lifts
- Communication lines, telephones and It networks
- Fire safety, detection and protection
- Security and alarm services
- Anti-termite treatment
- Damp proofing treatment
- Water proofing treatment

Objectives of building services:

1. To provide comfortable living to its occupants.
2. To improve efficiency of the user.
3. To improve functioning of building.
4. To preserve sustainability of a building.
5. To increase life of a building, e.g. anti-termite treatment.
6. To make vertical movement easy and comfortable in a building
7. To maintain health of occupants
8. To establish communication services in a building
9. To preserve air quality in a building

10. To provide protection against weather changes
11. To provide water supply and sanitary services in a building

THE BUILDING COMPANY PROJECT:

A GREEN HOME IS ONE which uses less water, optimizes energy efficiency, conserves natural resources, generates less water and provides healthier spaces for residents, as compared to a conventional building.

Green Facts	
Project Title	**: MONAARCH**
Building Use	**: COMMERCIAL**
Location	**: SURAT**
Size	**: 12123 sq.mtr.**
Rating System	**: IGBC NB**
Certification Level	**: CERTIFIED**
Project Team Profile	
Owner: Monarch Corporation / Jatin Viradiya	
Architect	**: Array Design**
HVAC Consultants	**: -**
Structural Consultants	**: Technocrat Consultant**
Landscape Consultants	**: Pavan Infratech**
Contractor	**: Shyam Constructions**
Plumbing Consultants	**: -**
Electrical Consultants	**: Ketan Soni**
IGBC Green Consultant	**: Godrej & Boyce**

GREEN BUILDING CONCEPT

Green building also known as green construction or sustainable building. It is a way of enhancing the environment. It benefits humans, the community, and the environment in order to reduce resource consumption while enhancing quality of life. This ultimately results in reduction of greenhouse gases which will help to reduce greenhouse effect. This paper presents an overview of application of modern green infrastructure construction technology which makes a significant impact on conservation/proper utilization of resources like land, water, energy, air, material thereby reducing the overall cost of construction as well as adverse impacts of climate change.

What is a “green” building? Green buildings are designed, constructed and operated to boost environmental, economic, health and productivity performance over that of conventional buildings. As reflected in the USGBC’s voluntary LEED rating system, widely accepted as the national standard for green buildings, an integrated design approach addresses the potential of the site itself, water conservation, energy-efficiency and renewable energy, selection of materials and indoor environmental quality. Projects that meet higher levels of LEED certification can include a wide array of features such as storm water retention through landscaping, innovative wastewater technologies, reflective roofs, energy generating sources and personal comfort controls. And, of course, energy-saving technologies such as Water Furnace geothermal and water source heating and cooling. Monarch is setting standards in Commercial sector, with the development and maintenance of ecological standards, hence accolade with an IGBC ranking of SILVER RATED BUILDING. It is the 1st Silver rated Green Commercial Building in Gujarat. The structure design is focused on energy efficiency and sensitive to the industry's dependence upon sunlight, thus letting ample daylight in all office spaces.

All Entrance Foyers, Spine Corridor, Lift Lobbies at Ground Floor are Air Conditioned, and Spine corridors at the upper floors have radiant cooling system to maintain the pleasant environment, during transit.

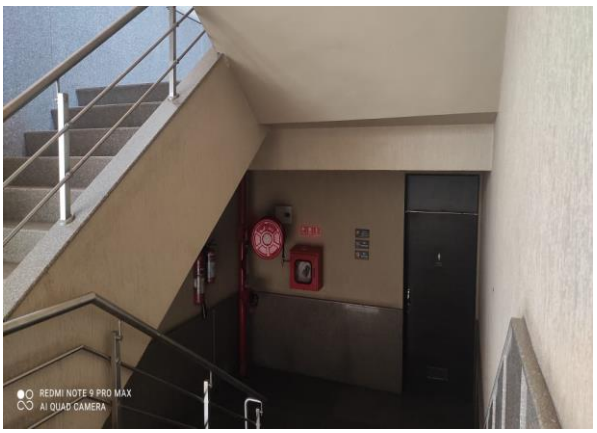
Further, building will have G+ 4 Building. All the offices are centrally air conditioned, through chilled water-cooling system, with each

sighting onto the exquisitely designed landscape courts, which are designed on the concept of "Panchtatva" (5 Elements of Nature: Air, Water, Fire, Earth, Sky) spanning almost 200 ft wide and 300 ft long. It will also have 100% power back up, for common areas and offices. SUSTAINABILITY is one of the most important aspects apart from the astonishing aesthetics & landscaping, contemplated to design this facility. Aspects, considered, for the same are MICROCLIMATE – to maintain the temperature within the confined spaces, SOLAR CONTROL – to reduce the direct heating due to sun light, WIND ANALYSIS – to evaluate and maximize natural ventilation, Orientation according to Sun and Wind direction, ENERGY PERFORMANCE – for energy efficiency and WWR.

Summary

This visit helped students to enhance their collective theoretical and practical knowledge of Building services. They can identify their prospective study areas of future work in the overall organizational function. Students can also understand detailed design of services which will be covered in the subject. Physical observation of various services will definitely be enhanced the skill and understanding of students in the CQCM & Building Services.

PHOTO GALLERY:



FIRE SAFETY ARRANGEMENT LAYOUT

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Brief detail given by Mr.Binod Patel about Water Efficiency

Explain about different building services which installed in Monarch

Solar panel system (66KW Panel)