



# SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY

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Approved by AICTE, New Delhi. Recognised by Govt. of Karnataka and Affiliated to Visvesvaraya Technological University, Belagavi



Ref: SI/DCV/INT/2022-2023/19

Date: 25/08/2022

To:

Mr. N V Ramamurthy  
Chief Executive  
TEKNA-KON  
Tumkur 572102

Subject: Permission to carry out internship reg...

Dear sir,

At the consent, we express our heartfelt thanks for permitting the following student to complete the internship at your esteemed organization.

| Sl. No | Name of the Student | USN        | Mobile No. | Email                  |
|--------|---------------------|------------|------------|------------------------|
| 1      | Govindaraju N       | 1SV19CV009 | 8978541583 | rajuonline06@gmail.com |

In this regard, I am happy to permit the above student to carry out his internship from 22/08/2022 to 10/09/2022 in your esteemed organization & seek your co operation in completing his/her internship successfully.

Thanking you & looking forward to your continuous support.

Yours

PRINCIPAL

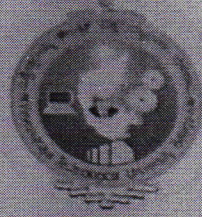
*M. S. Srinivas*  
PRINCIPAL  
SIET, TUMKUR.



VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"JNANA SANGAMA", BELAGAVI-590018.

KARNATAKA



2022-23

A Internship Seminar Report on

"HABITAT EDEN HEIGHTS"

Submitted in partial fulfillment of the requirement for the award of degree

BACHELOR OF ENGINEERING IN CIVIL ENGINEERING

Submitted By –

GOVINDARAJU N

USN-1SV19CV009

SIET, TUMAKURU

Under The Guidance Of-

Ms . NIRANJANI B, B.E., M.Tech.

Assistant Professor

Department of civil engineering

SIET, TUMAKURU



SHRIDEVI  
EDUCATION

*Niranjani B.*  
PRINCIPAL  
SIET, TUMKUR

DEPARTMENT OF CIVIL ENGINEERING

SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Affiliated to Visvesvaraya Technological University Belagavi)

Sira Road, Tumakuru- 572106 KARNATAKA

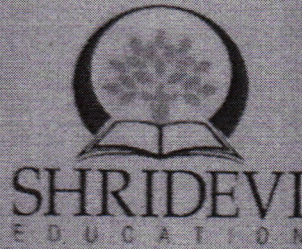


SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY

(AN ISO 9001: 2015 Certified Institution)


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DEPARTMENT OF CIVIL ENGINEERING

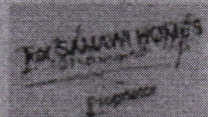


CERTIFICATE

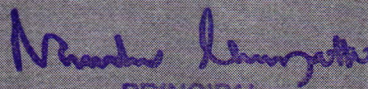
This is to certify that this internship report of on topic entitle "HABITAT EDEN HEIGHTS" has been successfully carried out by GOVINDARAJU N bearing USN : ISV19CV009 in partial fulfillment of the requirements for the award of Bachelor of Engineering in Civil Engineering from Visvesvaraya Technological University, Belagavi during the academic year 2022- 2023. It is certified that all corrections and suggestions indicated for internal assessment have been incorporated in the report. The internship report has been approved as it satisfies the academic requirements in respect of technical topic prescribed for the Bachelor of Engineering.

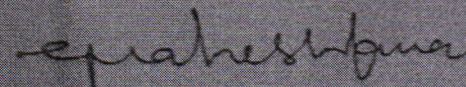
  
Signature of the Internal Guide

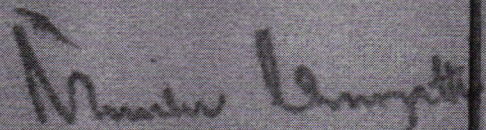
Ms. NIRANJANI B, B.E., M.Tech.  
Assistant Professor  
Dept. of Civil Engineering.

  
Signature of the External Guide

Mr. MOHAMMED RAFI  
Chief Executive Engineer  
Residential Building,  
Bangalore.

  
PRINCIPAL  
SIET, TUMKUR.

  
Signature of the HOD

  
Signature of the Principal

Dr. GMAHESH KUMAR  
Professor & HOD  
Dept. of Civil Engineering.

External viva-voce

Dr. NARENDRA VISHWANATH  
Principal, SIET  
Tumkur.

NAME of the EXAMINERS

Signature with Date

- 1) S.C. Narayan
- 2) S.N. Pattabirama

- 1) C. Narayan 22/5/23
- 2) M. 22/5/23



## ABSTRACT

As a part of academic requirement of university, we have to carry out internship programme in an industry set up related to the construction/materials testing laboratories/project management consulting firms or other avenues related to civil engineering domain in consultation, for about one month. The main intention of this programme is to get industrial exposure in terms of structural as well as in construction work. This document represents a set of work done as a part of internship.

We found RESIDENTIAL BUILDINGS as one of the good project which offered us for internship. Hence, I am thankful for the CHIEF EXECUTIVE ENGINEER, Mr. MOHAMMED RAFI

*Mohammed Hussain*  
PRINCIPAL  
Sri J. TUMKUR.



TO WHOM SO EVER IT MAY CONCERN

It is to certify that Mr. Govindaraju (18V19CV009) a B.E Civil Engineering student of ShriDevi Institute of Engineering and Technology has successfully completed his internship from our organisation Samawi Homes, from 01<sup>st</sup> September 2022 to 01<sup>st</sup> October 2022 at our Ashiyana villa project in Bangalore under the guidance of Mr. Raju- Project Manager.

During the period of his internship, we found him punctual, hardworking, and acquisitive.

We wish him every success in life.

For Samawi Homes.  
For SAMAWI HOMES

*Mohammed Rafi*  
Mohammed Rafi

Proprietor

Date: 05-05-2023

*Murthy Lemayya*  
PRINCIPAL  
SIET, TUMKUR.

Samawi Homes

153, 1st floor, 1st main Sulthan palya,  
Bhawaneshwari nagar, P.T. Bagal  
Bangalore-560022, Karnataka  
Ph: 9846718126



## CHAPTER-5

### CONSTRUCTION WORKS

#### Earth work

Earthworks are engineering works created through the processing of parts of the earth's surface involving quantities of soil or unformed rock. Excavation is the process of moving earth, rock or other material with tools, equipment or explosives. It includes earthwork, trenching, wall shafts, tunnelling and underground.

#### Types of excavation

- Top soil excavation
- Earth excavation
- Rock excavation
- Muck excavation- this usually contains excess water and unsuitable soil
- Unclassified excavation- this is any combination of material types.



FIG 5.1(m) EXCAVATOR

- Typically earthworks include roads, railway beds, causeways, dams, canals. Other common earthworks are land grading to reconfigure the topography of a site, or to stabilize slopes.
- Heavy construction equipment is usually used due to the amounts of material to be moved- up to millions of cubic meters. Earthwork construction was revolutionized by the development of the scraper and other earth moving machine such as the loader, the dump truck, the grader, the bulldozer, the backhoe, and the dragline excavator.

#### Design brief

- Structural system

The structural system is of RCC beam-columns with rigid joint. Lift walls are considered as RCC shear walls. Foundation system is isolated footings and combined footings.

*N. Srinivas Kumar*  
PRINCIPAL  
S.I.T. TUMKUR.



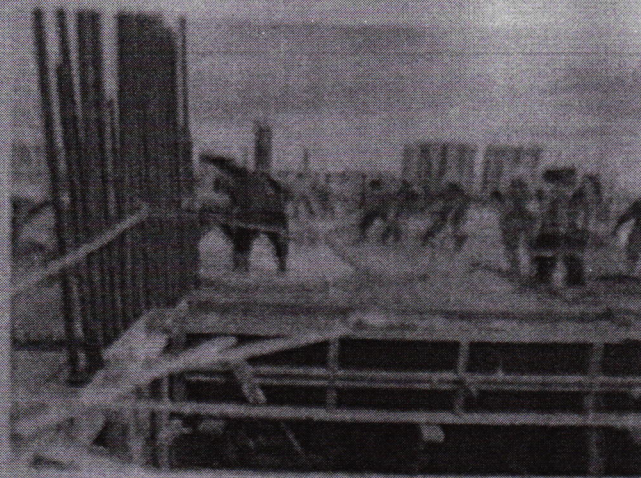


FIG 5.5(a) PUMPING OF CONCRETE

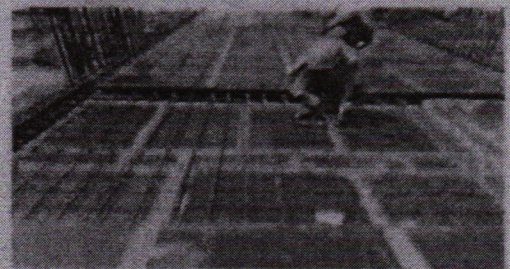
### Reinforcement

Reinforcing means the action of strengthening or encouraging something.

Reinforcement should be provided at designed spacing.

Steel bars of designed grade should be used.

Slab thickness-150mm, sunken area- 125mm.



### Reinforcing of beams, columns, slabs. FIG 5.6(a) REINFORCEMENT

- The lapping length for columns and beams 37d and 50d are considered.
- Stirrups are provided c/c distance as per design and binded by binding wires (mild steel).
- The first step is location of columns and beams in field as per drawing

### COVER TO REINFORCEMENT

Cover blocks used of PVC type in site.

The nominal cover to main reinforcement shall be as follows:

- Raft footing -50mm
- Columns-40mm
- Retaining wall-30mm
- Lift shear wall-25mm
- Beams-30mm
- Slabs-25mm.

*M. S. Srinivasan*  
 PRINCIPAL  
 SIET, TUMKUR.

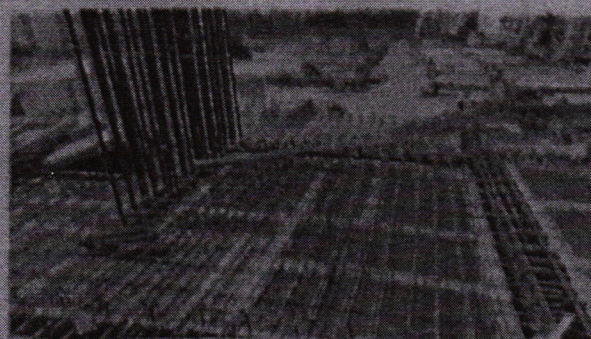


FIG 5.6(b) REINFORCING OF SLABS