

VISHVESVARAYA TECHNOLOGICAL UNIVERSITY
"JNANA SANGAMA", MACHE, BELAGAVI-590018



A Project Report

On

" EXTENSIVE SURVEY PROJECT "

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

**BACHELOR OF ENGINEERING
IN
CIVIL ENGINEERING**

Submitted By

BATCH- 02

| | |
|-----------------------|------------|
| ADARSH SINGH OKRAM | 1SV20CV001 |
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| SIDDARTHA K R | 1SV20CV011 |
| YAMUNA M | 1SV20CV014 |

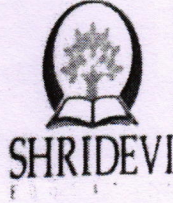
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2022-23

SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY

(An ISO 9001:2008 Certified Institution)

Sira Road, Tumakuru – 572 106.Karnataka.



DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

Certified that the project work entitled “ Extensive Survey Project (18CVEP68) carried out by **Batch No 02 (ISV20CV)** bonafide student’s of Shridevi Institute of Engineering and Technology, Tumakuru-572106. in partial fulfillment for the award of Bachelor of Engineering in Civil Engineering of the Visveswaraya Technological University, Jnana Sangama, Belagavi-590018, during the academic year 2022-2023. It is certified that all corrections/suggestion indicated for Internal Assessment have been incorporated in the report. The Project report has been approved as it satisfies the academic requirements in respect of Extensive Survey Project work prescribed for the said Degree.

Signature of the Camp Officer
Mr. Prakash J
Asst. Professor

Signature of the HOD
Dr. Mahesh Kumar G
Professor & HOD
Dept. of Civil Engg

PRINCIPAL
SIET.TUMKUR.

Signature of the Principal
Dr. Narendra Viswanath
Principal
SIET, Tumkur

EXTERNAL VIVA VO

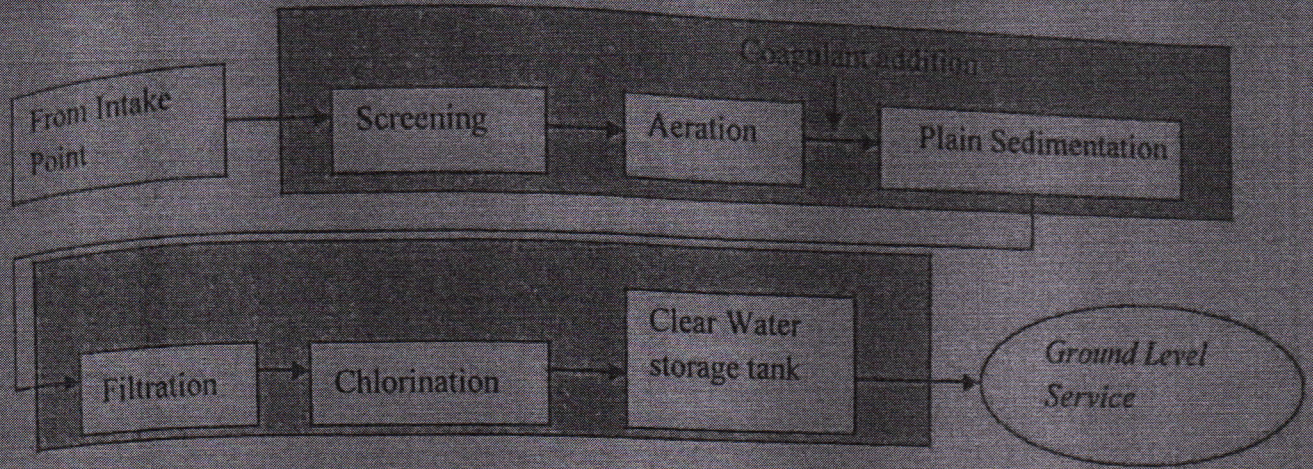
Name of Examiners

- 1.....
- 2.....

PRINCIPAL
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Signature with Date :

Water Treatment Plant:



4) Service Reservoir:

Service reservoir also called 'Distribution reservoir's are the storage reservoirs, which supply water to the whole area for which the scheme is planned. Depending on their elevation with respect to the ground, they may be classified as:

- Surface Reservoir:

These are circular or rectangular tanks, constructed at ground level or below the ground level. They are generally constructed at high elevation points in the city. In a gravitational type of distribution system, water is stored in the 'Ground Level Service Reservoir' (GLSR) and then directly sent from there to the distribution system.

- Elevated Reservoirs:

These are overhead tanks erected at a certain suitable elevation above the ground level and supported on towers. They are constructed where the pressure requirements necessitate considerable elevation above the ground level, and where the use of standpipes becomes impracticable. These tanks may be made up of Reinforced cement concrete, steel or Pre-stressed cement concrete.

5) Distribution System:

The process of carrying the water from the GLSR point to the individual homes is done through a well-planned distribution system. The distribution system may include pipes, valves, hydrants, pumps etc.

A good distribution system should be:

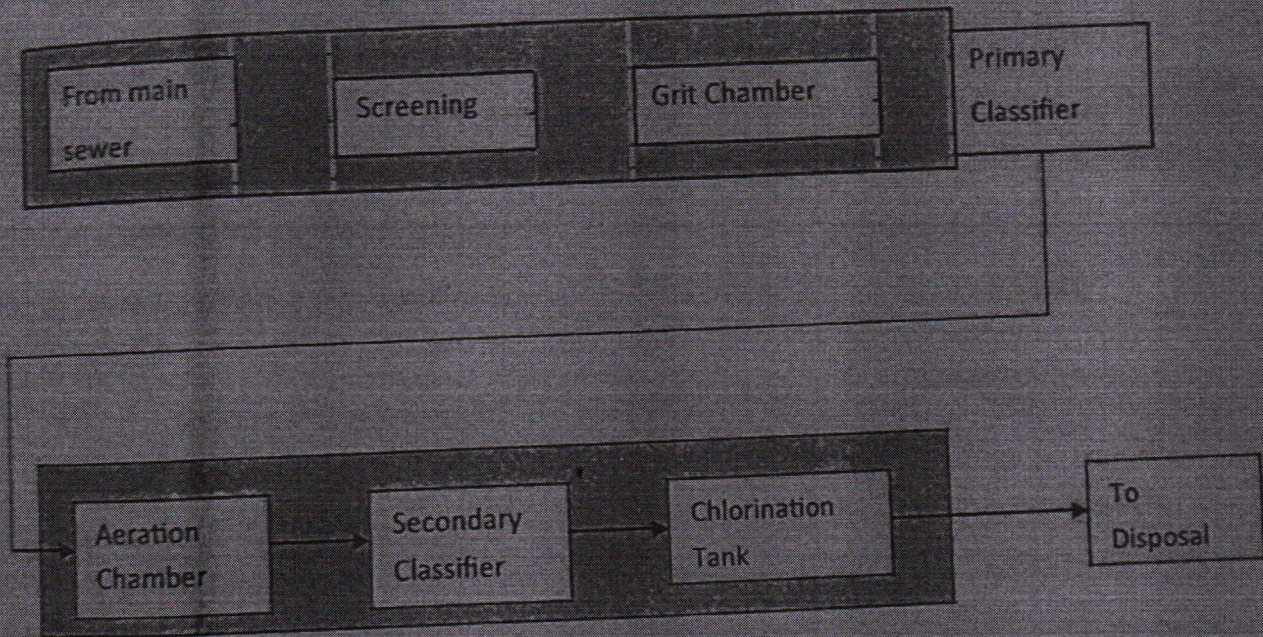
- ✓ Capable of supplying water at all the intended places within the city with a reasonable sufficient pressure head.
- ✓ Cheap with least capital construction cost.
- ✓ Simple and easy to operate.

M. Srinivas Kumar
 PRINCIPAL
 SIET, TUMAKUR.

Sanitation Works:

In a town or city with a planned water supply system, having good sanitation is a must. A sewerage system to carry the wastewater from the houses, industries etc., should be provided in every town or city. The sewage carried away from the residences, business buildings, institutions etc., is known as sanitary sewage. The wastewater from these buildings will be carried through pipes and will be connected to the manholes, provided along the roadside at about 180 m intervals. A manhole should also be provided at every change in direction and at every intersection. A drop manhole should be provided when there is a steep gradient. The sewage from these manholes should be treated properly before disposing it. The various units in the treatment plant are shown below.

Waste Water Treatment Plant:



Equipment Required:

1. Levelling with stand.
2. Compass with stand.
3. Levelling staff.
4. Tape.
5. Chain with arrows.

Ranging rods.

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