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EVALUATION OF L.O.B. IN MIVAN TECHNOLOGY USING SOFTWARE

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Abstract - *The research task is to evaluate Line of Balance (LOB) on Mivan technology, and to use Microsoft Management Management Software as an equally important tool, designed to assist project manager design, program resources, track progress, budget management, and job analysis. Every one of us is a project manager for our lives. From housewife to employee to financial analyst, from bank to doctor, from engineer to manager, from lecturer to student, we all work with different tasks on set dates. No matter where we work, the norms, or the place in the organization, we all work in hazardous jobs and involve people who rarely work together. A project can have a simple, low-cost goal or a lot of money or it can be complex, costing a variety of skills and a lot of resources. But the fact is that all of us manage projects. Building in many countries, acting in a traditional way, this sometimes proves to be Uneconomical & Tedious. The traditional method also proves that Time is used, high risk and mixing. The presented work will provide opportunities to recognize the differences between Microsoft Project (MSP) and Traditional Planning Techniques that accelerate Construction projects, disaster risk management plans and also make Project Cost Successful Proper Planning with the help of recent form in addition to traditional design and project management skills.The purpose of this project is to apply to Microsoft Project Software to evaluate the use of LOB in Mivan. It will also help reduce the risks associated with Mivan Formwork work, reduce construction costs, save time, and manage work efficiently.*

Key Words: MIVAN Formwork, Line of Balance, Time Reduction MSP

1. INTRODUCTION

Mivan is basically an Aluminum formwork system. The Mivan program was developed by a European Construction Company. In 1990, the Mivan Company of Malaysia started making forms, and then after naming MIVAN. This technology is widely used in Europe, the Gulf and Asia. The format is defined as a temporary structure whose purpose is to support the structure. Advances in equidistant formwork and advances in concrete construction in the 20th century. Modern technology must be needed at this time because of increasing population and building houses to the limit. To get a great housing project, it is important to know the new project completion technology at high speed, stand in good quality and be able to withstand wear. Mivan technology is capable of building a huge no. housing in the short term. The Mivan form is easily removed. All work can be organized more easily and get a more accurate, efficient and economically productive production in less time

The aluminum formwork system (MIVAN) has been widely used in the construction of residential units and many housing projects. It's fast, it's easy, it's flexible and it's expensive - it works. It produces the essence of quality work that needs to be maintained at least once again when durability is the main consideration. This system is well suited to the Indian state as an aluminum format made of steel for concrete formations. In this form of form construction, cast - in - Arr concrete and monolithic floor slabs provide a systematic approach to a single continuous demolition. Large room and floor building forms These forms are made to be sturdy and durable, fitted with precision and easy to carry. They can be used over and over again about 250 times. Concrete is produced from RMC plants under strict quality control and is transferred to the site by mobility mixers. The frame of the windows and the door and the arrows of the services are set in order before the assembly. Pedestrian planes, height panels, chajaas and prisons etc. and other installed features are included in the structure.

1.1 SCOPE OF PROJECT

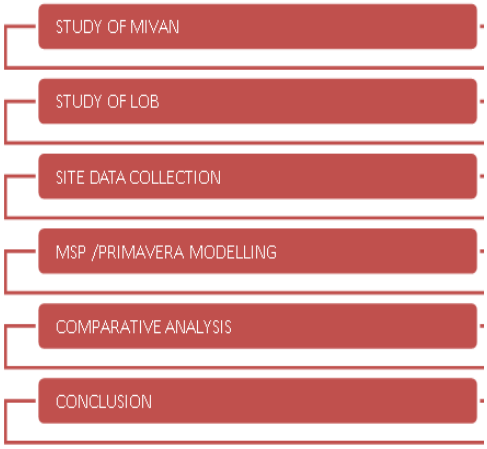
- The purpose of this project is to apply the Microsoft Project Software for evaluating the LOB in Mivan formwork use.
- The purpose of this project is to apply to Microsoft Project Software to evaluate the LOB in the use of the Mivan form.
- Performance evaluation of the Mivan process order in addition to traditional woodworking.
- Theoretical work will help to compare software testing with software itself and to investigate similarities and differences.
- Learning the Microsoft project software will also help with other construction management strategies.

• It will help reduce the risks associated with Mivan Formwork work, reduce construction costs, save time, manage work efficiently.

1.2 OBJECTIVES

• To learn the concept of LOB and MIVAN Technology.
• Understand the relationship between LOB and MIVAN Technology.
• LOB testing on MIVAN technology using software.
• Provide discussion and suggestions for the effective use of the balance line in mivan technology for high-altitude construction

2. METHODOLOGY



3. CONCLUSIONS

• The time duration of Mivan construction and conventional construction, its

Table 6.2 Quantity of material in PCC

Cement	19.04531
Kg/m3	27425.24
No. of bag	548.5048
Cost	175521.5
sand	38.09061
Kg/m3	59040.45
Brass	13.45958
Cost	40378.74
Agg.	76.18123
Kg/m3	129508.1
Brass	26.91916
Cost	40378.74

Calculation of Material in Tile work

Sr.No.	Description	Quantity	unit
1	Thk. Of flooring	150	mm
2	Area of room of flooring	11.55	sq.m
3	proportion of mortor	1	4
4	wet volume of mortor	2	Cu.m
5	Dry volume of mortor	2	Cu.m
6	Cement	0.433125	Cu.m
7	Cement Bag	13	Numbers
8	Sand	2	Cu.m
		1	Brass
9	No. of Tiles For 1 Shop	30	Numbers

4. Estimation results of MIVAN & Conventional formwork building

This study is based on the details of a live single building project by the following:

A. Pride Purple Square (MIVAN type)

1. Affordable area (total) - 35000Sq.ft

2. None of the 7 floors

3. Ground floor height- 3.2 m

B. Pride Purple Square (built in standard)

1. Accessible area (total) - 35000 Sq.ft

2. None of the 7 floors

3. Ground floor height- 3.2 m

A detailed measure of compliance with Building and Superstructure work items includes:

a R.C.C job

b- Sewing work c- Iron

d- Block-work (200mm, 150mm, 100mm) in Fly Ash (200mm, 150mm, 100mm)

f- Molding work (Gypsum, single coat, outer work) for painting (Inside, outside)

Evaluation results for the construction of the MIVAN formwork

Time Limit for one floor area 5000 Sq.ft

• Period of Mivan construction and general construction

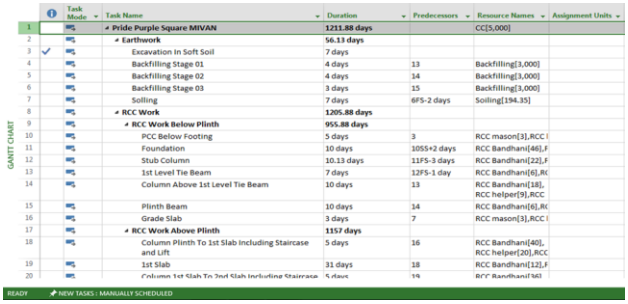
5. CONCLUSIONS

• The time duration of Mivan construction and conventional construction, its

ACTIVITY	NO OF DAYS
All Shuttering	35
Steel Reinforcement	24
Conceal electrification & plumbing	24
Alignment checking	8
Concrete placing	10
Removal of Vertical formwork	15
Removal of Other formwork	15
Lifting of wall panels	19
Gypsum plastering & painting etc	23
TOTAL	**173**

Note: In the above table, Vertical formwork refers to walls, columns & vertical sides of beams and, other formwork refers to Slabs, beam soffits & props to slabs etc.
Concluding results

TOTAL COST= RS 38,328,811.00 COST PER SQ, FT= RS. 1095.10 DURATION PER FLOOR= 173 DAYS TOTAL DURATION = 1211 DAYS



Duration with Mivan

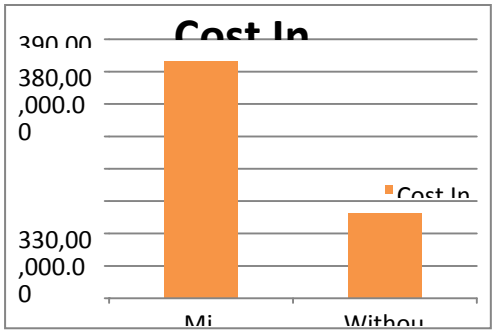
Cost With conventional formwork

Pride Purple Square	Time In Days
Mivan	1211
Without Mivan	1313

Graph 6.1 Duration in Days

Above graph shows the time duration of Mivan construction and conventional construction, its observe that conventional construction takes more time than Mivan construction, it‟s almost take 14-15 days delay for the each floor

Pride Purple Square	Cost In Rupees
Mivan	38,328,811.00
Without Mivan	33633062.09



Graph 6.2 Costs in Rupees

The graph above shows the cost of Mivan construction and standard construction, seeing that Mivan construction costs more construction than conventional construction

6. CONCLUSIONS

- Mivan construction time and normal construction, realizing that conventional construction takes longer to build Mivan, approximately 14 to 15 days delay on each floor
- Mivan construction costs and standard construction, see that Mivan construction costs more construction than conventional construction
- Project time can be reduced by adopting Mivan technology. And as a result it concludes that Mivan technology is not suitable for small projects
- The general installation system is accepted internationally but is more time consuming and more expensive to build. The standard format is not suitable for large populations, available land area and urgently needed construction work. This whole situation is satisfactory in the form of the MIVAN form.
- Mivan technology provides the best cost-effectiveness, speed of construction with the highest durability of the building structure.
- In Mivan formwork, construction speed can be achieved in a 4-day cycle on each floor. Removing the slab floor forms without removing the prop is possible, while generally not possible. The standard system deduction is 86% higher than that of the standard Mivan system.
- The measurement line applies to determining the production rate for each job using the size of the staff.

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