

CONSTRUCTION PROJECT MANAGEMENT BY USING M. S PROJECT FOR ATULA ELEGANCE AT VAVOL

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Abstract - Construction Industry in India has multiplied by using leaps and bounds in the latest decade. Construction is a complicated interest that contains right making plans and control of assets and capital. The nature of seasoned projects these days is becoming complex. The opposition on this industry is becoming elevated every day and additionally because of protection issues want as get up to cognizance on pleasant and workmanship. The achievement of any project lies in the green management of time, QUALITY and COST. By experiencing realistic knowledge of management on website we had concluded that Resource SCHEDULING of the assignment is the maximum critical thing of mission management. Our venture consists of SCHEDULING of task with the information of activities and lowering the losing of TIME, RESOURCES and MONEY

Key Words: MSP Software, Gantt chart, Cost, Materials, Quantity and Management, Planning, Scheduling, Organizing.

1. INTRODUCTION

Project Management is the Application of understanding, competencies and Techniques to venture sports to satisfy venture requirements. It is a strategic capacity to do something effectively for businesses, permitting them to patch the undertaking effects to Organizational goals and for that reason, higher compete in their markets. It can be additionally defined as the manner and interest of planning, organizing, inspiring, and controlling resources, procedures and protocols to acquire particular goals in clinical or day by day issues. A assignment is a brief aim designed to produce a unique product, carrier or end result with a defined starting and cease, undertaken to satisfy eccentric dreams and targets, typically to result in useful change or introduced value. The transient nature of initiatives stands in evaluation with commercial enterprise as normal, which might be ordinary, permanent or semi-everlasting functional activities to supply services or products.

1.1 Objectives of Study

- To study total project management and key elements of project management
- To reduce the total duration.
- To ease of work for the Labour
- Planning and scheduling of residential building.
- To prepare a realistic schedule and set baseline.
- To prepare the graph of the planning and scheduling.
- To study construction of FLAT in GANDHINAGAR Region

1.2 About Microsoft project

Microsoft Project is a challenge management software advanced and sold with the aid of Microsoft, that's designed to assist a assignment manager in growing a plan, assigning assets to duties, monitoring development, dealing with the price range, and analyzing workloads. Project creates budgets based on mission work and aid fee. As assets are assigned to the venture and this system calculates the fee equal to the work times the charge, which rolls up to the venture level and then to any summary tasks stage and sooner or later to the task degree.

1.3 Scope

Project scope is the part of project planning that includes figuring out and documenting a list of specific assignment dreams, deliverable, obligations, charges and deadlines. These deliverables are derived from a undertaking's requirements. In construction, put off could be described as the time over run both past of entirety. Date specified in a agreement, or beyond the date that the events agreed upon for shipping of a assignment

2. Literature review

Vittal Anantamula, Planning Techniques for Academic Advising and Learning, (2010), Journal of Engineering Research and Applications www.ijera.com ISSN: 2248-9622, Vol. 4, Issue 6 (Version 5) Description: - Found out that Similar to a traditional project, managing an academic degree is related to the triple constraints of time, cost, and scope. It is concluded that by applying project management concepts, tools, and techniques, undergraduate degree program advising and planning can be improved after comparing the planning aspects of a conventional business project with the planning of an academic degree

R. Prabhakar and G. Ravichandran, Optimal planning and scheduling in multi-storied building, (2014), Journal of Mechanical and Civil Engineering (IOSR) Description: - Analysed that; Construction planning is an important part of the overall management process. The planning and management include organizing the work, executing the work, correlating plan and progress information and controlling the work, the three inter-related factors of time, money and quality need to be managed in a proper way. Completion of many of the projects nowadays is not in estimated duration.

Hoang, Nhat Minh Shrestha, Swastik, Project management software and its utilities (2014), Lahti University of Applied Sciences Degree Programme in Business Information Technology Description: - Hinted that the main function of a software is to offer help, and enhance the quality of output with less effort than manual ways. A project has disparate requirements and the aim of the adopted software is to fulfil those requirements effectively in terms of time and cost. In addition, the issues of scheduling, tracking and physical element must be considered while adopting the project management software.

3. Methodology

This thesis is finished for the making plans and scheduling of the construction site. The site name is ATULYA ELEGANCE it's miles multistory constructing undertaking of 4 blocks of 8 storey. The mission is constructed by using ATULYA DEVELOPER. In this thesis A-block is chosen for the research of making plans and scheduling in Microsoft Project. From excavation to completing paintings time table ought to be generated in Microsoft project and notify the crucial path.

Resource allocation of ever paintings and material need to be provided. Cost of the paintings and fabric should be calculated in M.S challenge.

3.1.1 Data collection

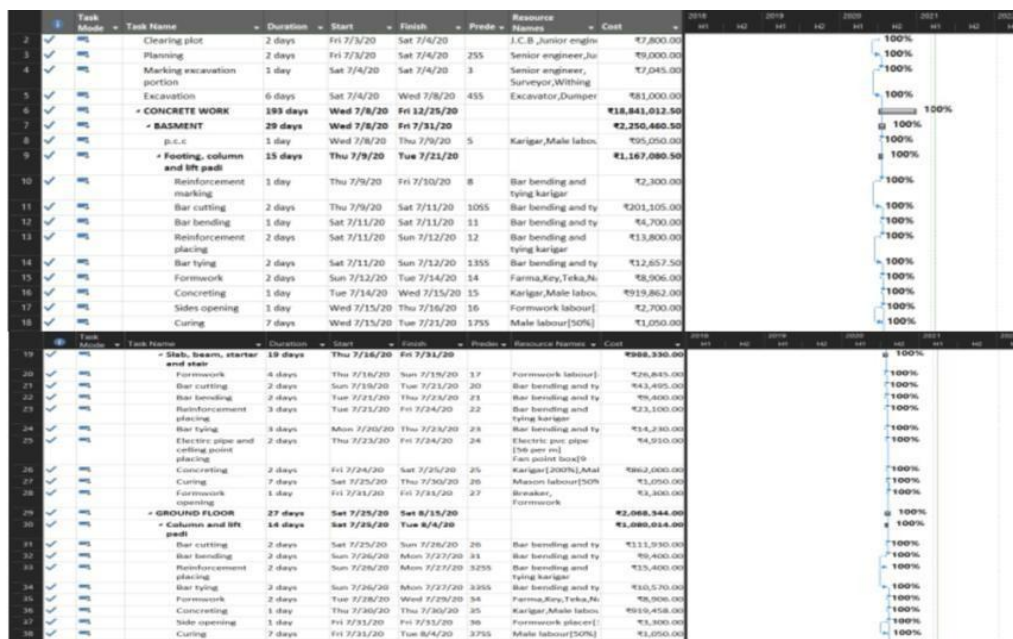
3.1.1 Date Collection		
Activity name	Start date	End date
Block-A		
Clearing of plot	3/7/2020	4/7/2020
Planning	3/7/2020	4/7/2020
Marking of excavation	4/7/2020	4/7/2020
Excavation	4/7/2020	8/7/2020
Concrete work		
Basement		
p.c.c	8/7/2020	9/7/2020
Footing, column and lift padi	9/7/2020	21/7/2020
Slab, beam, starter and stair	16/7/2020	31/7/2020
Ground floor		
column and lift padi	25/7/2020	4/8/2020
Slab, beam, starter and stair	1/8/2020	15/8/2020
1st floor		
column and lift padi	8/8/2020	20/8/2020
Slab, beam, starter and stair	15/8/2020	29/8/2020
2nd floor		
column and lift padi	23/8/2020	3/9/2020
Slab, beam, starter and stai	29/8/2020	13/9/2020
3rd floor		
column and lift padi	6/9/2020	19/9/2020
Slab, beam, starter and stai	13/9/2020	27/9/2020
4th floor		
column and lift padi	22/9/2020	3/10/2020
Slab, beam, starter and stai	27/9/2020	12/10/2020

3.2 Data analysis

Activity name	Start date	End date
A- Block		
Clearing of plot	3/7/2022	04/7/2020
Planning	3/7/2022	04/7/2020
Marking of excavation	4/7/2020	4/7/2020
Excavation	4/7/2020	4/7/2020
Concrete work		
Basement		
p.c.c	8/7/2020	10/7/2020
Footing , colummand lift padi		
Reinforcementmarking	10/7/2020	10/7/2020
Bar cutting	11/7/2020	11/7/2020
Bar bending	11/7/2020	12/7/2020
Reinforcementplacing	12/7/2020	12/7/2020
Bar tyoing	12/7/2020	12/7/2020
formwork	12/7/2020	14/7/2020
Concreting	15/7/2020	16/7/2020
Side opening	17/7/2020	18/7/2020

4. RESULT AND DISCUSSION

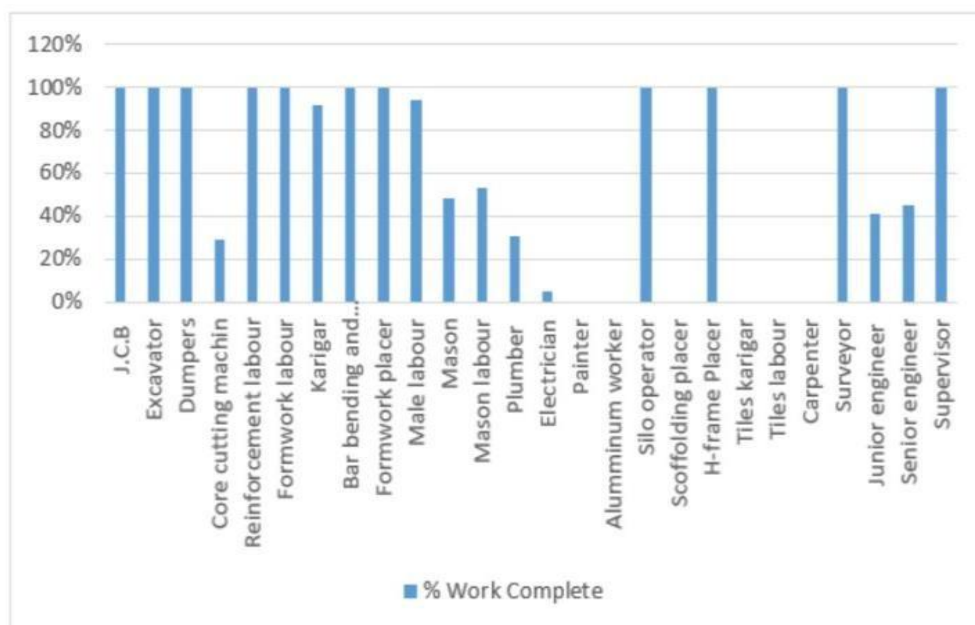
4.1 Planning and scheduling of ATULY ELEGANCE using M.S project



4.3.3 Resource allocation and cost calculation

i	Resource Name	Type	Initials	Std. Rate	Work	Cost
1	J.C.B	Work	J	₹300.00/hr	16 hrs	₹4,800.00
2	Excavator	Work	E	₹500.00/hr	48 hrs	₹24,000.00
3	Dumpers	Work	D	₹200.00/hr	240 hrs	₹48,000.00
4	Compactor	Cost	C			₹0.00
5	Bar cutter	Cost	B			₹0.00
6	Bar bending machine	Cost	B			₹0.00
7	Mixer	Cost	M			₹0.00
8	Silo	Cost	S			₹0.00
9	Concrete pump	Cost	C			₹0.00
10	Material lift	Cost	M			₹0.00
11	Vibrator	Cost	V			₹0.00
12	Breaker	Cost	B			₹0.00
13	Cutter	Cost	C			₹0.00
14	Core cutting machin	Work	C	₹200.00/hr	112 hrs	₹22,400.00
15	Drill machine	Cost	D			₹0.00
16	Reinforcement labour	Work	R	₹800.00/day	4,240 hrs	₹424,000.00
17	Formwork labour	Work	F	₹600.00/day	1,864 hrs	₹139,800.00
18	Karigar	Work	K	₹800.00/day	384 hrs	₹38,400.00
19	Bar bending and tying karigar	Work	B	₹800.00/day	2,184 hrs	₹218,400.00
20	Formwork placer	Work	F	₹600.00/day	1,760 hrs	₹132,000.00
21	Male labour	Work	M	₹300.00/day	2,140 hrs	₹80,250.00
22	Mason	Work	M	₹800.00/day	12,224 hrs	₹1,222,400.00
23	Mason labour	Work	M	₹300.00/day	16,724 hrs	₹627,150.00
24	Plumber	Work	P	₹1,000.00/day	2,072 hrs	₹259,000.00
25	Electrician	Work	E	₹1,200.00/day	3,144 hrs	₹471,600.00
26	Painter	Work	P	₹600.00/day	2,864 hrs	₹214,800.00
27	Alumminum worker	Work	A	₹1,200.00/day	288 hrs	₹43,200.00

4.4 Resources overview



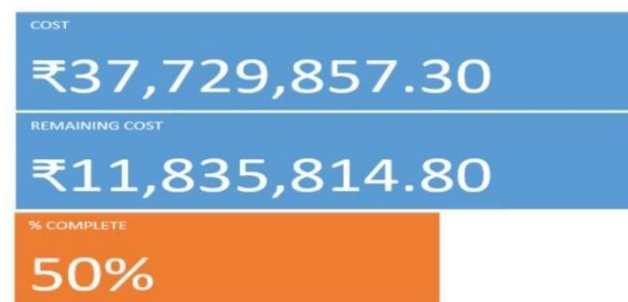
4.5 Work hour remaining table

Name	Start	Finish	Remaining Work
J.C.B	Fri 7/3/20	Sat 7/4/20	0 hrs
Excavator	Sat 7/4/20	Wed 7/8/20	0 hrs
Dumpers	Sat 7/4/20	Wed 7/8/20	0 hrs
Core cutting machin	Sun 3/14/21	Sat 5/1/21	80 hrs
Reinforcement labour	Thu 7/9/20	Thu 2/25/21	0 hrs
Formwork labour	Sun 7/12/20	Wed 2/24/21	0 hrs
Karigar	Wed 7/8/20	Thu 7/8/21	32 hrs
Bar bending and tying karigar	Thu 7/9/20	Thu 2/25/21	0 hrs
Formwork placer	Sun 7/12/20	Wed 2/24/21	0 hrs
Male labour	Wed 7/8/20	Thu 7/8/21	120 hrs
Mason	Sat 12/5/20	Tue 7/6/21	6,336 hrs
Mason labour	Sat 7/25/20	Tue 7/6/21	7,928 hrs
Plumber	Mon 3/8/21	Thu 12/23/21	1,440 hrs
Electrician	Thu 7/23/20	Sun 12/26/21	3,000 hrs
Painter	Sat 4/10/21	Sat 12/18/21	2,864 hrs
Alumminum worker	Sun 12/12/21	Sun 12/19/21	288 hrs
Silo operator	Tue 7/14/20	Fri 2/26/21	0 hrs
Scaffolding placer	Thu 4/8/21	Mon 5/3/21	256 hrs
H-frame Placer	Mon 3/1/21	Wed 4/7/21	0 hrs
Tiles karigar	Thu 7/8/21	Thu 11/18/21	3,096 hrs
Tiles labour	Thu 7/8/21	Thu 11/18/21	4,200 hrs
Carpenter	Sun 12/12/21	Wed 1/12/22	1,200 hrs
Surveyor	Sat 7/4/20	Sat 7/4/20	0 hrs
Junior engineer	Fri 7/3/20	Wed 1/12/22	4,960 hrs
Senior engineer	Fri 7/3/20	Sun 12/26/21	1,504 hrs

4.6 Cost overview

COST OVERVIEW

FRI 7/3/20 - WED 1/12/22



5. Conclusion

Based at the mission paintings, “MS PROJECT SOFTWARE AND ITS APPLICATION IN CONSTRUCTION PROJECT AND CASE STUDY AT GANDHINAGAR” the following conclusions are drawn out Practice and Understanding of general task control provides higher end result, product, and carrier to the undertaking /company. Effective undertaking control provides balance among Scope, Time, Cost, Quality, Resource and Communication. Project control Software MS Project presents higher making plans, scheduling, tracking and controlling of small as well as large initiatives. During the execution of a mission, software is useful for promoting powerful coordination. Research and Study nation that implementation of MS Project software for Time and Cost Management is proven method. Implementation of MS Project software program for production

of Buildings such as flat, for Time and Cost Management presents effective display and manage. For infrastructure venture like production of Buildings, implementation of MS Project software program gives higher time table to manipulate the venture. Time management which gives correct planning and scheduling of assignment and Cost management which gives earned fee management of undertaking. Earned Value Management gives higher economic manipulate of typical cost of the undertaking. It can be used for measuring undertaking performance and development in an goal manner. Software provides effective Monitoring and Controlling through various Reports.

6. ACKNOWLEDGEMENT

We specific in care and heartfelt thanks to Prof. A. N. Bhavsar Sir, asst. Prof. Birla Vishvakarma Mahavidyalaya Engineering College, Vallabh Vidyanagar for giving us an possibility to adopt this challenge for study. We specific a deep feel of gratitude to Prof. A. N. Bhavsar Sir, Civil Engineering Department, Birla Vishvakarma Mahavidyalaya Engineering College, Vallabh Vidyanagar & Svayam Symphony Group, Sir Pramodkumar Singh, Director General Manager and Sir Nirav Modi, Project Co-ordinator, who helped us for his or her excessive constructive help, consistent encouragement, steering and channelizing our efforts in the proper direction without which this project might no longer have attained the prevailing shape. We might also like respect and thank to our loving PARENTS, CLASSMATES and FRIENDS for all their help and encouragement, given in the course of the assignment period.

7. REFERENCES

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[6] Minh Shrestha, hinted that the main function of a software is help, and develop the quality of output with less effort than manual ways.