

“OPTIMIZATION OF COST BY ALLOCATION OF RESOURCES USING PRIMAVERA P6”

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1. Abstract:

completion of building project wants a correct setting up and preparation is of very important meaning for the scheme to be execute and jog easily. A best timetable have to be set in such a means that meet the main objectives of the whole scheme. persons necessary destination are to create a excellence business enterprise, ended on occasion, surrounded by expenditure plan, and in a protected place of work. as a result in this examination a moving ahead growth business enterprise is in use and the implementation of the responsibility is contrast and the chart with the help of Primavera. An ongoing project of Government school at Lalghati, Bhopal M.P

KEYWORDS: primavera p6., Gantt chart, time-cost contrast, cpm network, reserve allocation, scheme scheduling.

2. INTRODUCTION

The progress business assume striking part in the wealth of create nation. For case in point, in frequent create nation, noteworthy progress workout correspond to about 80% of the cumulative funds possessions, 10 % of their GDP, and larger than half of the reserves put possessions into established possessions. what is more, the commerce gives high selling chance, most to be expected next before agribusiness. In bad feeling of the advance selling mammoth assurance to the nation of creating nation and the indispensable part it the stage in persons nations spread, the putting to death of the big business still vestiges by and hefty squat. As noted, copious venture in create nations know-how broad time and asking price invade, disregard to be aware of their anticipated improvement or even absolutely ended and surrender in the past or after their terminate. Also, the advance of the enlargement commerce in create nations by and big falls a extended ways at the back from dissimilar venture in persons nation and their associates in shaped country. The growth commerce in create nations deserted to assemble needs for government, clientele and civilization in general.

3 Project Planning:

3.1 Introduction

By and large Primavera P6 do deals with the system of dynamic booking. Which surely furnishes the Project Management office with an unmistakable course outline, is expected to set up the most ideal advanced arrangement of the undertaking by utilizing 'imagine a scenario where' situations hazard extenuation strategies. In spite of, the way that it show the Project Manager's capacity to create administration change potential outcomes for the Project Management group to choose from the when differences by the proposed venture Baseline are being taken note. The technique for dynamic planning outlines the base or the stages for the undertaking booking which is intended to help the group of Project Management with certain official rationalities, strategy, rules, phrasing, formats and strategies which could incorporate the instructing and preparing apparatus or stage through which a specific course of events of occasions, steps, and the venture turning points are refined. Dynamic planning approach depends on the beneath specified some backhanded exercises which are executed by the different Project Management group and its partners.



Fig:1 school Plan.

Table -1: school data

Name of work	Government higher secondary school, lalghati, Bhopal M.P.
Salient Features	Rain waterharvesting, earthquake resistant structure, toilets, playground.
Name of Agency	Nagar Nigam ward 08, bhopal
LAND	5300 sq. ft.
Amount of contract	96 lakh
Date of start	11-01-2016
Date of completion	10-01-2018

4. METHODOLOGY & PROBLEM FORMULATION

4.1 INTRODUCTION.

Arranging can be characterized as drawing up technique or plan of acting, doing, continuing, making, and so on., created before the beginning of undertaking. It is the way toward thinking about choices and strategies to finish assignment. Arranging makes a deliberate succession of occasions, characterizes the standards to be followed in conveying forward the arrangement, and depicts a definitive air of the outcomes. It serves the supervisor by indicating out the things be done, their grouping, to what extent each undertaking should take, and who is in charge of which assignments or activities.

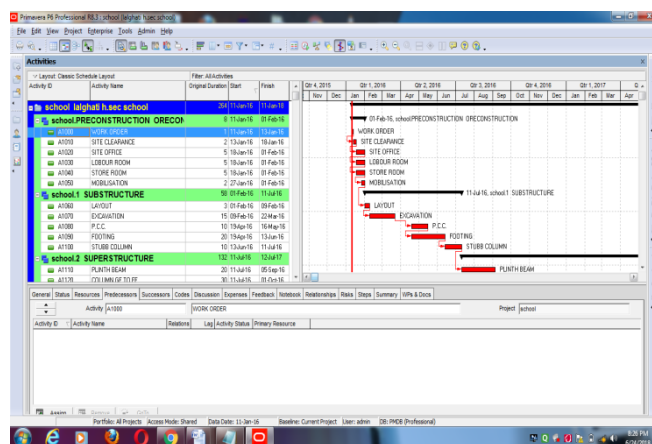


Fig. 2 Project Planning



Fig.3 – Column Casting.

case study



5 RESULT & DISCUSSION

5.1. OVERALL COST

Overall Cost (In Lakh)		
S.no	Type	Cost
1	New scheduling	89.6
2	Old scheduling	96

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The principal contribute of a contractor’s costs and expenses result from the use of labors, materials, gear, and subcontractors. Extra broad overhead cost segments incorporate duties, premiums on securities and protection, and enthusiasm on advances. The aggregate of an undertaking's immediate expenses and its distributed aberrant expenses is named the Overall cost.

5.2. COLUMN CASTING FROM GROUND FLOOR TO FIRST FLOOR

Table 1 Column Casting G.F. to F.F.

Column G.F. To F.F.		
S.No	Type	Labour Units
1	New Scheduling	78
2	Old Scheduling	63

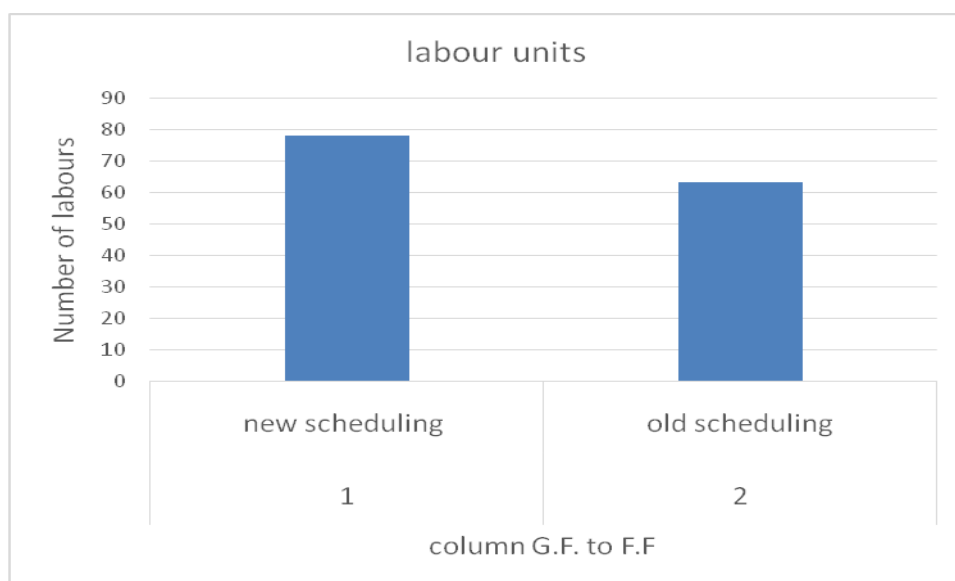


Fig 4. column casting

5.3 INFERENCES:

As per above figure it shows that for fast progress of an activity, we require to increase the labour resource to increase work progress. Here for proper management and scheduling of a project in new scheduling we require to increase labours to enhance working

5.3.1 SLAB AND BEAM WORK

Table 2. slab & beam work

Beam & Slab F.F.		
S.No	Type	Labour Units
1	New Scheduling	48
2	Old Scheduling	32

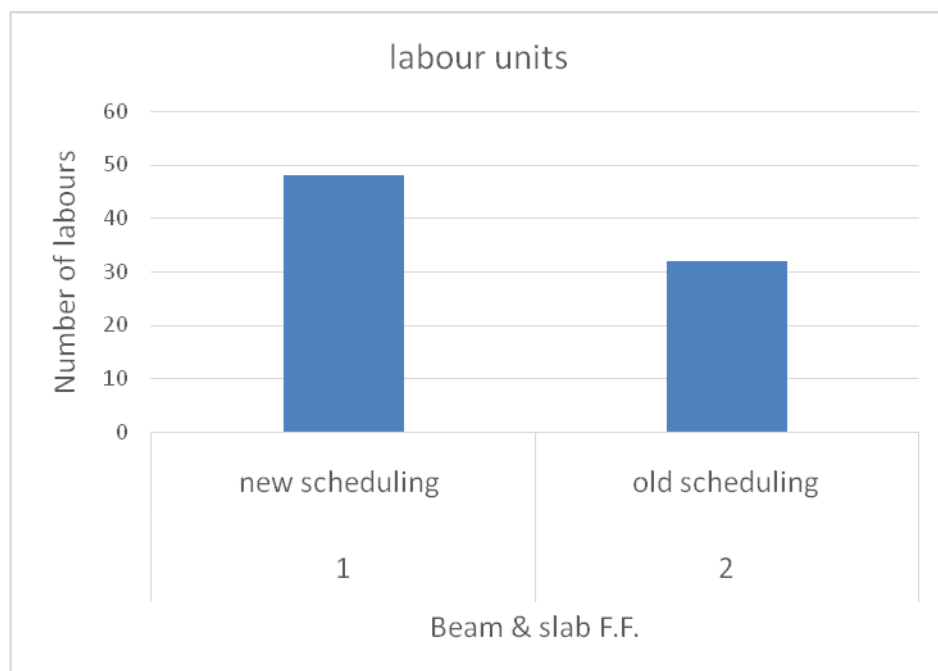


Fig 5. beam and slab work

6. CONCLUSIONS

In this dissertation work, planning and scheduling of an ongoing project is prepared using management tool primavera P6 and it is compared with the scheduling adopted by the government bodies in this project in terms of duration, resources and cost.

The requirement of manpower for every activity of the project selected for this study i.e. Construction of government higher secondary school located at lalghati Bhopal M.P.is obtained using I.S. 7272 –I in which labour constants are selected according to activity and quantity of work.

The logical sequence of activities with constraints were determined and assigned on the basis of work involved and past experience. Based on data obtained, Gantt chart and network diagram is prepared and relations are assigned to activities. The duration of project were defined at different level like sub project level, work package level, activity level, operations level.

In construction project, the time duration is generally related to the quantum of resource employed. The software also help us to calculate the duration required to complete the project according to the planned schedule and actual performance of activity at any time and it gives the idea about project is on schedule, ahead of schedule, behind the schedule. The manpower & resources schedule is prepared which gives a clear picture of labour & materials requirement in exact number during the execution period of the project.

6.1 FUTURE SCOPE OF STUDY

- This study aims for manpower & resource planning and scheduling of a project. One can develop it for equipment and further outrages of the constructions fact and during execution process as outrages due to climatic conditions, accidents, price and scalation in fuel, labour wages and material cost.
- In this study government's other than residential projects has been targeted. The study can also be elaborate to residential townships/ integrated projects, industrial and infrastructure projects.
- In this study cost optimization and time management is done by resource allocation and critical both for project is obtained using primavera P6 software. One can develop it using any other software and optimize the cost at high precision by comparing results obtained by different one.

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