

1. Benefits of BIM to reduce time and make time overrun zero:

1)The 3D aspect of the BIM makes it a very effective method of communicating between the architect, MEP consultant, contractors and the other project participants. It benefits to communicate problem, its better understanding & resolving the problem. it saves time and effort spend in traditional way of communication.

2)Communication or coordination issues between components like the building structure, MEP can be effectively managed through the Clash Detective application in Navisworks Manage.

3)BIM model is effective in Material management. A proper resource management benefit in timely procurement of material .It reduces wastage of time (Quality and Quantity control of material) .as we can extract the quantities as per our requirement. When material management is achieved effectively using BIM it can lead to saving of loading transportation costs and time which will contribute to a more sustainable construction process.

4)The 4D model visualization of the construction schedule-helps to understand the sequence of the construction. It is a very effective means of communicating the construction sequencing process which helps identifying critical activities, identification of unforeseen conditions and the resultant cost to all the stakeholders.

5)The movie clips of the construction sequence from navis work and saved viewpoints in the model helped stack holders to communicate their ideas faster by reducing the navigation time.

6)The nature of the BIM process itself is such that it eliminates uncertainties in construction processes and reduces complexity. Some unforeseen conditions could be clashes between components, time-space conflicts. The Clash detection function may reveal some unexpected clashes between components which can be modified and updated in the model. Time-space conflicts between tasks on the schedule can be observed and corrected.

7)The BIM process minimizes unforeseen conditions and resulting cost. It prepares bid packages, measure of its value against cost.

8)BIM strengthens the capability and output of each phase and stakeholder of the project. It helps each player of project in conceptual design, visualization, cost estimation, clash detection, time management, scheduling, environmental analysis, spatial analysis, fabrication, quality assessment, facility management and maintenance.

9)For faster and better execution of project accurate and comprehensive information is required. Using software like Revit, Navisworks Manage, Microsoft Project, it is possible to extract accurate and reliable data as and when required and

could be updated and modified as project progresses which results in better control and efficiency of the project.

10)Overall BIM helps in reducing labour hour in extracting data, increasing productivity,

Predicting future problems, early decision making etc. BIM is a revolutionary concept

which needs acceptance at all levels of the construction industry to utilize its full potential.

2. Benefits of BIM to reduce cost and make cost overrun zero:

1)Effective communication results in to completion of project in stipulated time. Though the project is completed in time no liquidated charges / penalty charges are charged .Also we could demand for increasing cost of star rated material such as steel, cement, sand etc.so no increased material rate is charged from your pocket

2)Effective material management reduces excessive procurement and wastage of material also reduces excessive Transportation cost.

3)Through 3D coordination model the concept of execution of project is clear to all stakeholders, and GFC (Good For Construction) drawing for execution reduces the rework and it results in reduce the over work of cost.

Hence BIM is effective project management tool. So it is getting popular day by day in construction industry. It acts as a collaborative tool for construction industry. It is helpful to complete the project in stipulated time and specified standard.

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