Cert HE Construction Digital Computing and Engineering

INTRODUCTION

To form the organisation, system or the object in the form of the science or the art is the general term of the construction. To the gross domestic product there is the significant contribution of the construction industries in many countries. The BIM software will be detailed in the study.

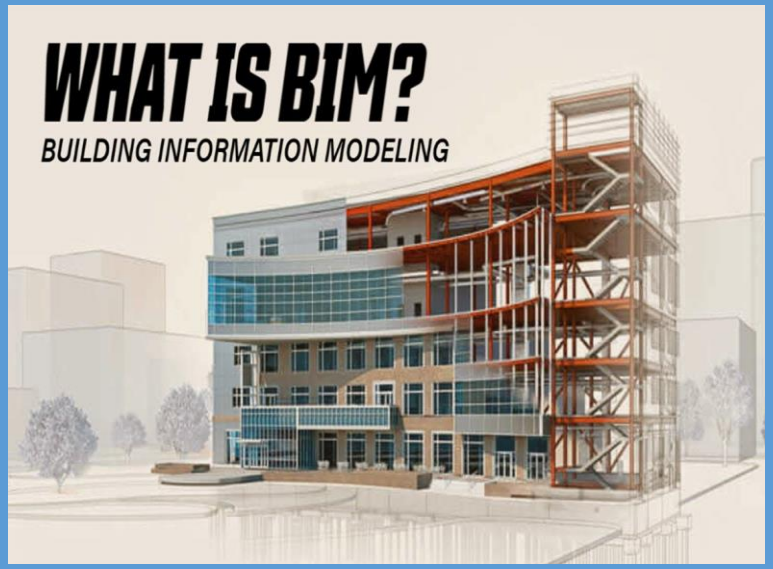
BIM SOFTWARE

The 3D designing model is used for construction is known as the BIM software. For the architecture, plant, civil, construction and MEP projects the work design can be optimised through the help of the modelling software. The BIM model stands for Building Information Modeling to the process of workflow. To the infrastructure projects, building management, designing and the planning the model was based. Through the entire lifecycle and to the completion of the concepts the projects can be virtualisation through the BIM model. The software does this by:

- Structure, process and piping construction and design managing.
- Through the handover construction information can connected and the site construction can be digitalized.
- The building performance can be improved and the better design decision can be helped.
- To the workflows the profitability, productivity and the predictability can be improved.
- With the collaboration and the design quality improved the supporting project success can be delivered.

There were included the four steps in the BIM software process. The four steps are as follows:

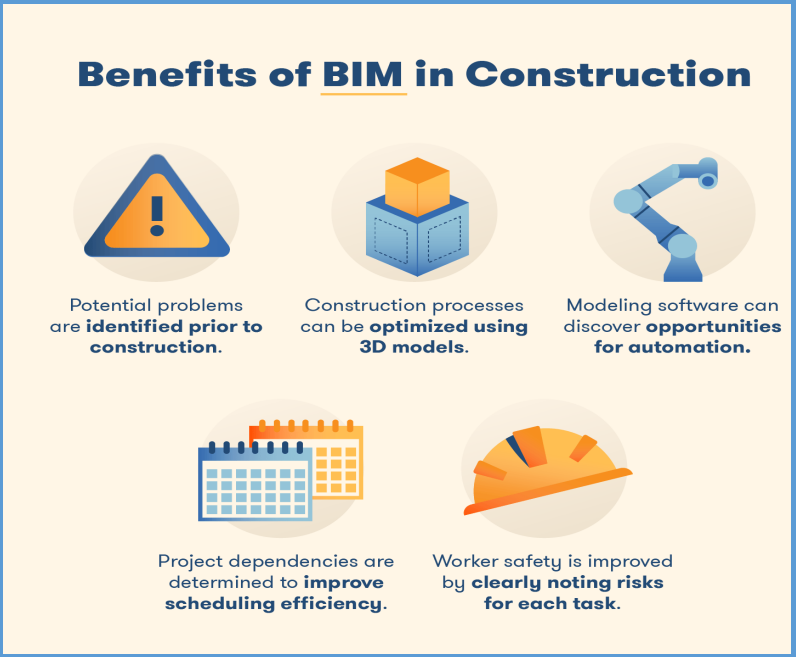
1. **Planning** – The real world data has been used and to generate the BIM models there is captured the reality together.
2. **Designing** – For schedules and the logistic informing the documentation, analysis, conceptual design and detailing performing.
3. **Building** – To increase the efficiency the contractors and the traders design and the plans were shared.
4. **Operating** – To the maintenance and the operations the BIM the data was carried out for the use of deconstruction or the renovations later.



There is not matter who is working with; through the design the software is updated. With the intelligent objects the model of BIM has been made. The design options, documentation and visualisation can be explored and designed through the use of the BIM models. Many layers of the information have been combined by the BIM software, the BIM model the computer generated has been created. Into a master model the various infrastructure system the information layer has been combined. To the project there is the virtualization of the BIM model.

The large scale project has been built from the representing it and the ground up throughout the lifecycle of the project. From the BIM there is the built of the Revit. Within a BIM model there is the interconnected of the data to the advantage of capitalisation. To the Building Information Modeling feature there is the single application of the Revit. Feature such as the MEP that is the mechanical, electrical and plumbing; architectural design, construction and the structural engineering. Information is the key word of the BIM. Made up of objects the BIM model was centered by BIM.

In the different views the data can be seen by the designer, the consist of the object created by the Revit. The views such as the 3D model, 2D drawings and the schedules. There is the disadvantage of the model that there are the legal issues, software cost and with the partners it was incompatible.



CONCLUSION

Through the current study it has been concluded that building construction is all termed to as the construction. To the process of construction there are used of many software. The BIM software helps the project to visualise at the preconstruction stage.

REFERENCES

Books and Journals

Alizadehsalehi, S., Hadavi, A. and Huang, J.C., 2020. From BIM to extended reality in AEC industry. Automation in Construction. 116. p.103254.

Olawumi, T.O. and Chan, D.W., 2019. Development of a benchmarking model for BIM implementation in developing countries. Benchmarking: An International Journal.

Oraee, M., and et.al., 2019. Collaboration barriers in BIM-based construction networks: A conceptual model. International Journal of Project Management. 37(6). pp.839-854.