

Overview of Discipline

Main Contractor

Building contractors do some or all of the following tasks, each of which is being made easier with the assistance and utilisation of the 3D model as all the relevant information is generally contained within this model:

- examine and interpret the client's plans or arrange the creation of plans to meet building regulations
- submit tenders, quotes or prices for the project to clients and organise details of contracts
- arrange submission of plans to local authorities for approval
- arrange inspections of building work
- arrange subcontractors to carry out all stages of building work and negotiate rates of pay
- calculate quantities of materials required and order from building suppliers
- arrange delivery times of materials to coincide with various stages of the building process
- supervise the work of subcontractors
- coordinate the activities of office staff involved in the preparation and payment of accounts
- talk to lawyers and financial institutions on matters relating to loans and contracts
- discuss building plans or changes with architects, clients and other tradespeople
- ensure building standards and correct health and safety practices are adhered to.

Contractors frequently participate in the design team effort by providing pre-design services where they can help in providing more accurate estimation of budget and scheduling during design to improve the overall economy of the project. Otherwise the contractor is appointed just to build the structure at the close of the design phase.

The contractor is responsible for the means and methods to be used in the construction execution of the project in accordance with the contract documents. These contract documents usually include the contract agreement, budget, and the general and special conditions along with the 3D model. The plans and specification of the project are generated from this model, which has been created by the design team or the architect.

SUSTAINABILITY

In the past, the sustainability arena was regulatory driven, whereas now, some construction companies have taken a much broader, holistic and integrated approach to the situation and are using innovation within the sustainability field to differentiate themselves from their competitors.

This trend will no doubt develop further in the future, as businesses are financially challenged by environment-related threats such as increasing energy costs, landfill taxation and the impact of climate change.

The utilisation of the project's 3D model by many companies has been paramount in establishing their carbon-negative policies and zero-waste practices, similar to those listed below:

- Pollution minimisation
- Resource and waste management
- Ecologically sustainable development
- Efficient appliances and plant, natural ventilation, passive solar design
- Water quality management/recovery and re-use of waste water, storm/grey water
- Maintenance of natural ground water levels, clean discharge of excess recovered water
- Design and construct for ease and efficiency of waste recovery and recycle during construction