*Project Specific Set of Restrictions*

It is possible to define the essential CM requirements of a project by establishing similarities in previous CM projects and deriving a set of fundamental requirements based on previous project constraints. To define a projects constraints a classification method has been developed to represent both a planned project and a completed project. To offer a greater understanding of project similarities a 4D BIM professional will offer opinions established from the ability of each 4D BIM attribute to enhance the improvement of CM, established through the use of the 4D BIM software application defined by a set of CM constraints. Both the user looking for a recommendation and the 4D professional offering a knowledge based recommendation are presented with a series of choices to define their requirements of a 4D BIM software application. The choices are structured from an established project management tool known as ‘the iron triangle’, which states that a series of three project management constraints are common to all construction projects and can be categorised into three groups.

Construction projects are similar in that they all use and adapt stage planning procedures but each project is unique with its own set of problems and solutions. Project success can be measured upon the ability to classify, coordinate and intuitively manage three constraints known as “the iron triangle”, which includes time, cost and quality. The purpose of this analysis is to provide a structured approach with all the relevant and comparable information used to increase the reliability of decisions, which are based on similar decision criteria.

Research project’s defined restrictions via the due consideration guide:

Time

The fictional project used for the purpose of this research is a Local Authority project, therefore:

* Sector Type - Public

The site logistics of the project are based within a built up suburban area of Dublin city, therefore:

* Site logistics - Restricted

The scheduled project construction is within a two year time frame, therefore:

* Project Duration - 2 + Years

Cost

The chosen procurement method for the project is Design & Build, therefore:

* Procurement Method - Design & Build

The projects budget is within €10 million, therefore:

* Project Budget-US$ 5 + million

The project is a local authority project and is open to public scrutiny, therefore:

* Resource Control- Total

Quality

The proposed project is straightforward in its design and is not seen to propose any technical difficulties in construction, therefore:

* Technical Complexity- Average Level

As this is a public sector project the stakeholders involved could be said to be acting for all those with potential access to the facilities that are planned to be made available to the public and as such could be seen as a voice for the local community etc., therefore:

* Stakeholder involvement - Very Influential

The Irish government has legal obligations to reduce the states carbon omissions, this project could be seen to facilitate this requirement over the assets lifecycle, therefore:

* Carbon Footprint- Balanced