

HND: Quantity Surveying and Commercial Management

Work Based Project

University of Wales Trinity Saint David



Work Based Project: An investigation into how the construction methods of Zone 4 Old College Project can be implemented and achieved in comparison to the design.

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This study has been completed as part of the HND in Quantity Surveying and Commercial Management at the University of Wales Trinity Saint David. This work is my own and where the work of others has been used or drawn upon to gain knowledge in this field of research it is referenced accordingly.

Abstract

It is well known within the construction industry that the design team often design sections of the building which can be very unrealistic/difficult for the Contractor to implement on-site. With this in mind I'll be carrying out an investigation as to whether Zone 4 of the New Life for Old College project in Aberystwyth is possible to build within the giving timeframe as detailed by the Principal Designer. I'll aim to analyse the intended design, the advantages and disadvantages of different systems as well as the skilled labour available in the surrounding areas to carry out the work.

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Research Context

As this site is a Grade 1 & 2 Listed Building the literature will also look to provide an understanding of what these are and how it can limit the construction techniques used on the project and what approval processes the Main Contractor and Design Team will need to comply with prior to carrying out these works.

The primary research will aim to gather an understanding from those working in the industry and further working on this project. The primary research also aims to analyse the particular trades where skilled labour resource is particularly difficult to acquire on the project.

Research Questions

Naoum (2019) suggests that it is important to breakdown my aim into sub aims and/or objectives, so it is possible to establish certain issues while achieving the overall aim. These objectives will then later provide subsequent questions to be researched during the primary research section of the dissertation.

Aim

To investigate how the construction methods can be implemented and achieved in comparison to the intended design.

Objectives

My intended approach for answering these aims and objectives will largely be carried out via empirical research as I'll be gaining research from construction individuals working on the New Life for Old College project as well as working on the project myself, thus, gaining valuable and direct experiences and knowledge. I will also use doctrinal research methodology when discussing listed buildings, the consents surrounding this and the laws and regulations for such buildings.

Objective 1: Analyse & compare the intended design with the As-Built information post completion

The purpose of this objective is to analyse the intended design prior to the construction process, submit any relevant Technical Queries and/or Request for Information to query the design and potentially change the process. After that, we'll provide a summary of the intended design and further evaluate the process once we've received the As-Built information from the designers post completion of the project. Furthermore, the analysis will confirm whether the changes in design increased the overall cost of the project.

Objective 2: Advantages and disadvantages of construction work methods

The purpose of weighing up the advantages and disadvantages of different construction work methods is to evaluate whether the contractor is able to use a different work method which is safer, less labour intensive while also accelerating programme and being more cost effective.

Objective 3: Ease of acquiring skilled labour in the surrounding area to carry out specialist works

The purpose of this objective is to provide a study of how difficult it proved to find skilled labour to carry out such specialist works such as stonemasonry, timber window refurbishment and slate roofing to name a few. This will largely be down to the scale of the project as well as the complexity and location (Aberystwyth, Mid Wales). I'll provide statistical data of our findings and where these trades travelled from.

Research Methods

Whilst working on this project I will gather my own primary knowledge as well as aiming to interview numerous people who have various roles and responsibilities across the project. We will also have monthly progress meetings as well as weekly internal meetings held with the project team so we will continually be discussing the works throughout the construction phase. I'll use relevant conservation sources to help enhance my knowledge on this topic and reference to my findings accordingly. My aim when interviewing members of the project will be to ask concise questions that will be useful to my research in this field, and I'll also ask the same questions to the various different people I'll be interviewing to ensure that I can analyse and produce a report on my findings.

Significance of Research

The significance of my research into this topic will be important to myself, my company (Andrew Scott Ltd) and the wider construction industry as it will demonstrate how much change is incorporated from the initial Architectural Design to how the contractor will actually construct the build of the project. In addition, I'll be exploring into whether this will incur additional costs over and above the original contract value due to design changes. However, on this particular contract it will not affect the contractor due to it being a Prime Cost Contract and so they'll be reimbursed for all costs incurred. This information will still be beneficial to us because it can demonstrate whether we should include a contingency within the contract sum for design development, and if so, what value should be included in relation to the size and complexity of the project. Furthermore, my research will provide me with the opportunity to give a greater context into the Listed Building conditions and the work required to these complex buildings.

Bibliography

Within the Bibliography, I shall be using documentation and information which supports the Listed Building process such as CADW who are the Welsh Government Historic Environment service. In addition, I'll be using a lot of primary research which I'll gather through my own knowledge on the project to provide a greater insight into how the collaboration between the intended design and how the contractor constructs the works differ.

1. Farrell, P. (2017) *Writing built environment dissertations and projects: practical guidance and examples* [Online]. Second Edition. London. Wiley Blackwell.
2. Naoum, S. G. (2012) *Dissertation Research and Writing for Construction Students*. Third Edition. London. Routledge.
3. Naoum, S. G. (2019) *Dissertation Research and Writing for Built Environment Students*. Fourth Edition. London: Routledge.

List of References

1. Naoum, S. G. (2019) *Dissertation Research and Writing for Built Environment Students*. Fourth Edition. London: Routledge.