

# REFLECTIVE ESSAY ON PRACTICAL EXPERIENCE

Reflecting on my internship experiences, I have gained invaluable insights into the construction industry and its alignment with my coursework in the BSc Construction Studies program at UCT. The internships allowed me to practically apply the theoretical knowledge gained from my university studies, helping me develop key skills such as cost management, project planning, and contract administration.

| Company                    | Description                                |
|----------------------------|--|
| MDA PROJECT MANAGERS       | Construction Project Management Consulting |
| WATERMARQUE CONSULTING     | Quantity Surveying Consulting              |
| ABLAND PROPERTY DEVELOPERS | Property Developer                         |
| CHINA JIANGSU              | Contractor                                 |

At Watermarque Consultancy, the use of software such as WinQS and Excel for cost analysis during my internship helped me appreciate the importance of efficient data handling in managing costs. One of my early tasks was creating a cost analysis for various building components such as door and window frames, which required proficiency in Excel. This directly linked to what I had learned in classes, such as Construction Costing where we were introduced to the fundamentals of cost estimation and budgeting in construction projects. The real-world experience of comparing material costs and analysing supplier quotes allowed me to better understand the nuances of these tasks beyond the classroom.

Working with contract documents such as the JBCC (Joint Building Contracts Committee) forms was another significant aspect of my internship. In my coursework, particularly in Construction Law and Contracts, we covered the different types of construction contracts and how they are managed. During my internship, I was tasked with updating and cross-referencing site instructions (SI) against the contract documents. This activity provided hands-on experience in ensuring that project changes, such as variations in the scope of work, were accurately documented and incorporated into the contract. I also participated in a dispute resolution meeting, where I observed how contract disputes are resolved on-site, giving me insights into the practical application of contract law in a construction environment.

My internships also involved site visits, which gave me a comprehensive view of project progression and quality control. I visited sites such as residential projects, commercial, shopping centres, hotels etc, where I observed various stages of construction, from door frame installations to finishing work such as painting and tiling. These visits reinforced the principles of construction technology and management, which we covered in Construction Management at UCT. During these visits, I assisted with measurements.

The ability to verify measurements on-site and compare them to contractual quantities was an essential part of ensuring that projects remained within budget.

At MDA Projects, my role expanded into more detailed project management tasks, particularly during the finishes stage of construction on the Great Oaks Retirement project. One key aspect of this phase was coordinating the activities of subcontractors to ensure that tasks such as plastering, tiling, and painting were completed without delays. The knowledge I gained in project scheduling and resource management during the construction management course was particularly helpful here. I learned how to prepare and update a project schedule to avoid overlaps between trades, which is critical to maintaining efficiency and avoiding delays on-site.

I also had the opportunity to assist with quality control during this internship, which involved inspecting work such as the installation of tiles and cabinetry, ensuring that all work met the required specifications. I found that my academic understanding of quality management was enhanced by the real-world experience of walking through the site with contractors helped me in practicing that issues were addressed promptly.

Another valuable aspect of my internship was learning about cost variation analysis, particularly at China Jiang Su. I worked on analysing and documenting cost variations due to project scope changes, unforeseen conditions, and material price fluctuations. This task reinforced the concepts of financial management and cost control, which were core elements. The ability to forecast costs based on current market trends and project changes was very challenging for me. I struggled with understanding it but with plenty of practice and the support and guidance of my supervisor I was able to make improvement, this was one of the rewarding parts of the internship and something that I will continue to practice.

Overall, my internship experience has been instrumental in bridging the gap between theoretical knowledge and practical application. The tasks I performed, from cost analysis and contract management to site inspections and project scheduling have given me a clearer understanding of the QS role in managing construction projects as well as that of a Construction Project manager or Property Developer. It has also highlighted the importance of effective communication between the professional team, contractors, and clients, a theme emphasized throughout my studies.

As a Quantity Surveying Intern, I had numerous opportunities to engage with cost management tasks, particularly during my internship with China Jiangsu in Botswana. This experience gave me a direct insight into the other aspects of Quantity Surveying concepts and introductions to aspects, such as cost estimation, contract administration, and the preparation of Bills of Quantities (BoQs). For example, I was involved in the preparation of BoQs for projects such as the Proposed Agriculture

Integrated Development Project and the Royal Aria Hotel. This task required careful attention to detail and accuracy, skills that were honed during my coursework at UCT, where we learned about Standard Methods of Measurement.

Furthermore, updating cost reports and tracking project expenditure during my internships. I contributed to creating cost reconciliation reports and was guided on the process of performing take-offs from architectural drawings, which were activities directly tied to the Measurement module. One challenge I encountered was adjusting costs based on changing site conditions a, such as when I helped prepare cost estimates for structural steel and concrete quantities at the Shopping Complex project. The ability to adapt and forecast costs is a vital skill in quantity surveying.

A significant portion of my internship involved frequent site visits, where I observed and participated in construction activities. For instance, at Abland Property Developers, I observed the installation of concrete slabs and steel columns, learning about the importance of testing concrete quality through slump tests. This hands-on experience reinforced the theoretical knowledge gained in UCT's Construction Technology module, where we studied concrete technology, structural frameworks, and site logistics. Additionally, I was introduced to construction drawings during site visits, and I learned to cross-check them with on-site work. These tasks were essential in ensuring that the project met the necessary standards and specificationsna direct application of our Civil Technology course.

My time with China Jiangsu allowed me to observe the critical interplay between site work and cost management. For example, during a site walk-through the Sports Arena, I verified the quantities of materials used and assessed the progress of wall finishes. This task not only tested my knowledge of construction technology but also tied into cost management since the quantities verified impacted the interim payments and overall project budget. Understanding the relationship between construction activities and their cost implications, my internships gave me a first-hand view of this vital connection.

Another aspect of my internship that aligned with my studies at UCT was the development of communication and professional skills. Regularly attending site meetings, drafting minutes, and preparing progress reports allowed me to practice presenting technical information clearly and concisely. At UCT, modules such as Professional Communication stressed the importance of effective communication, particularly when conveying cost-related information to clients or contractors, some of the courses also require presentations. During meetings at the Royal Aria Hotel, and MDA Project Managers for instance, I observed how senior project managers communicated complex project updates and addressed concerns a critical skill for any future project manager.

At MDA Project Managers I also learnt how to create summary construction programmes taking into account the stage of the project, working under timelines, client and project needs. This helped me with understanding how to prioritise and schedule my work streams, whilst considering the overall productivity of the site and the consultants. Attending the meeting in Botswana regarding the work streams and gaining approval to the stages highlighted the importance of thorough investigation and data handling as well as an outlook into the procedures that would be necessary to get approval, as well as how statutory bodies or public clients would look very different to a private entity clients. I also learnt how to use soft skills to work with the team and developed a strong work ethic being able to contribute while taking into consideration what I am learning.

I learnt and practiced skills that help present my data more effective manner and readable way. Breaking down complicated documents or analysis into more user-friendly documents. Such as a comparison between the PROCSA and the contracts that are used in Botswana. This also gave me a better understanding of the scope of work of each of the consultants. While involved on the fit-out project, due to the limited space and access points it was interesting to learn how that is considered within the programme and also worked around and planned for, while taking into consideration the roads and nearby building such as hotel. It was also crucial.

In conclusion, my time Practical experience has not only allowed me to apply the principles learned but has also enhanced my understanding of the construction industry's complexities. This experience has prepared me for future roles in the industry, providing a strong foundation for my continued professional development and growth.