

# **Practical Training Report for**

# **Con2013X**

**Prepared for:**

Karen Le Jeune

**Prepared by:**

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Date of submission: 31 March 2023

## **TERMS OF REFERENCE**

Construction studies undergraduate students are required to submit a written report in accordance with the guidelines set out by the Department of Construction Economics and Management , which is endorsed by their employer/s, on the nature and duration of the experience obtained in the workplace . This must be submitted either on 31 March or 30 September each year.

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# 1. INTRODUCTION

## 1.1. Subject of and Motivation for Report

The purpose of this report is to reflect upon my practical training experience in the construction industry. This report serves as a record for my practical experience during the year of 2022. It must entail descriptions, diaries and essays on how I did my work.

## 1.2. Background to Investigation

This report came because of the request sent by Karen Le Jeune , who is the course convenor , stating that she requires construction studies to produce a report relative to their practical training.

## 1.3. Objectives of Report

- State and discuss duration of practical training done.
- State activities done during practical training.
- Reflect on what was done during the practical experience at and draw conclusions on what was learnt and also challenges faced.

## 1.4. Limitations and Scope of Investigation

This report is only based on the experience gained during the year of 2022 for the completion of Con2013X.

## 1.5. Plan of Development

The report will first describe activities that took place in the Spring community build. Then it will focus on the practical training at WNA Consulting Engineers.

## 2. Submission Declaration



Faculty of Engineering and the Built Environment  
Department of Construction Economics and Management  
Practical Training  
CON1007X, CON2013X and CON3023X

### ANNEXURE C

#### CON1007X, CON2013X, CON3023X SUBMISSION DECLARATION

##### Summary of Submission

I hereby declare that I have checked on PeopleSoft that I am **correctly registered** for the appropriate practical training courses for 2023.

Herewith the summary of the hours/days/weeks worked as part of my 2023 practical training submission:

(indicate whether hours/days/weeks)		
CON1007X	110	Hrs/dys/wks
CON2013X	237.5	Hrs/dys/wks
CON3023X		Hrs/dys/wks
<b>TOTAL</b>	<b>347.5</b>	

I further declare that I have read the 2023 course handout for the practical training requirements for the Department of Construction Economics and Management, understand the contents and acknowledge what my obligations are. By ticking the checklist, I confirm that I have adhered to the minimum submission requirements applicable for 2023.

<input checked="" type="checkbox"/>	Report	<input checked="" type="checkbox"/>	Employer letter(s)	<input checked="" type="checkbox"/>	e-portfolio
<input checked="" type="checkbox"/>	URL submission (working order)	<input checked="" type="checkbox"/>	Submission declaration		

##### Plagiarism Declaration

1. I know that plagiarism is wrong. Plagiarism is to use another's work and pretend that it is one's own.
2. Where I have made use of referencing, I have used the prescribed UCT convention for citation and referencing. Each contribution to, and quotation in, this report from the work(s) of other people has been attributed, and has been cited and referenced.
3. This report is my own work.
4. I have not allowed, and will not allow, anyone to copy my work with the intention of passing it off as his or her own work.
5. I acknowledge that copying someone else's report or part of it, is wrong and declare that this submission comprises my own work.

Signature:..... *L Shezi*

Date 31./.03./2023

Full Name of Student Luthando Shezi.....

Student Number SHZLUT001.....

### 3. Spring Community Build 2022

#### 3.1. Reflective Essay

This year's practical training was in Paarl. Compared to my previous one, this one was very different because in the last one we focused more on brickwork and ceilings , but on this one we focused more on trenches, excavations , and removing screed in the rooms allocated for us .

For the first half of the week , my group focused on removing screed from the various buildings and also plaster. At first we struggled as a group because we couldn't use the breaker properly, but as time went by, we became better and more efficient. The bad thing about removing screed was the dust created from effects of breaking and also sweeping , putting and taking it out by wheelbarrows , however we were given masks to use while working . Unfortunately, I didn't have safety boots when I started the community build , so I was restricted from using the breaker due to safety regulations , so I couldn't gain any experience on how to use the breaker .

For the second half of the week , we were told to move to another site where we focused on site clearance , setting up and digging up excavations . It was really educational to actually doing the practical side of site clearance , setting up and digging up excavations because it now made me understand MDA 2 more clearly when we measure and speak about site clearance and excavations . Site clearance , setting up was much easier than excavating with spades and pick axes , but I still enjoyed them both . I learnt a lot in this com build especially working in teams to achieve a goal , as a result , my team was awarded as one of the best teams in executing the work given to them .

In conclusion , this community build was very educational and I found it successful . I would also like to appreciate Karen for getting myself and many other students safety boots so that when we're working, we are much safer.

## 4. WNA Consulting Engineers

### 4.1. Daily Diary 1

I did my second-year training with WNA Consulting Engineers from the 27 June 2022 to 15 July 2022 completing a total of 125 hrs. Below is my daily diary of my time with WNA Consulting Engineers.

#### **Daily Diary: WNA Consulting Engineers**

<b>Total Hours Completed</b>		125 hrs
<b>Date</b>	<b>Hours of work</b>	<b>Activities</b>
<b>WEEK 1</b>		
Monday (27/06/2022)	8am-4:30pm 8.5hrs	<ul style="list-style-type: none"><li>• Went to the WNA office and got introduced to the whole team by Nkosi Malishe, one of the co-owners of WNA.</li><li>• Thereafter Nkosi explained to me the different duties each member of the team did and explained what I was assigned to do for the period of my practical training work.</li><li>• Finished off the day by analysing site plans of the different infrastructure work in which WNA was assigned to do.</li></ul>
Tuesday (28/06/2022)	8am-4:30pm 8.5hrs	<ul style="list-style-type: none"><li>• The engineer's representative explained and showed me how to prepare a monthly report for submission to the client and a weekly progress report for submission to the engineer.</li><li>• Then I prepared a weekly progress report for the engineer with the assistance and guidance of the engineer's representative.</li></ul>
Wednesday (29/06/2022)	8am-4:30pm 8.5hrs	<ul style="list-style-type: none"><li>• We went the Mabheleni site where the company was performing the construction of pipes, boreholes, and SABS tanks in the area.</li><li>• After that I attended the site meeting at Mabheleni.</li></ul>
Thursday (30/06/2022)	8am-4:30pm 8.5hrs	<ul style="list-style-type: none"><li>• I prepared the site meeting minutes that was held the day before with the assistance of the engineer's representative.</li><li>• The engineer's representative explained and taught me how to issue site instructions to clarify construction drawings.</li></ul>

Friday (1/07/2022)	8am-4pm 8hrs	<ul style="list-style-type: none"> <li>The engineer's representative showed me how to measure the work done and materials used on site.</li> <li>Then for the rest of the day, I measured the work done and materials used on site.</li> </ul>
<b>WEEK 2</b>		
Monday (4/07/2022)	8am-4:30pm 8.5hrs	<ul style="list-style-type: none"> <li>This week I spent most of my time with the technician.</li> <li>She showed me how to apply for funding using websites like MIG MIS and how to apply for a tender, how to fill in the necessary fields within the tender document.</li> <li>Thereafter we started with the filling of a new tender document, but because of time decided that we would continue the next day.</li> </ul>
Tuesday (5/07/2022)	8am-4:30pm 8.5hrs	<ul style="list-style-type: none"> <li>We carried on with the filling of the tender document.</li> <li>Therefore, we organised, printed, attached the required documents to complete the tender application document.</li> </ul>
Wednesday (6/07/2022)	8am-4:30pm 8.5hrs	<ul style="list-style-type: none"> <li>We prepared a monthly progress report for a client.</li> <li>We got an invoice from the contractor and then complied a payment certificate that is to be sent to the client.</li> </ul>
Thursday (7/07/2022)	8am-4:30pm 8.5hrs	<ul style="list-style-type: none"> <li>I was told to prepare a BOQ and a cost estimation for a particular project.</li> <li>After that, the technician evaluated my work and helped me fix the various errors I had made when doing the BOQ and cost estimation.</li> </ul>
Friday (8/07/2022)	8am-4pm 8hrs	<ul style="list-style-type: none"> <li>We went to the UGU Municipality to prepare tender evaluation reports.</li> <li>The technician explained to me how to do these tender evaluation reports.</li> <li>After that, I watched and analysed how the technician did the tender evaluation report. And thereafter we went back to the office, and I continued with some small paperwork.</li> </ul>
<b>WEEK 3</b>		
Monday (11/07/2022)	8am-4:30pm 8.5hrs	<ul style="list-style-type: none"> <li>I was told to locate boreholes in the UGU District Jurisdiction using Google Earth and then type them on Microsoft Word by indicating their ID and co-ordinates.</li> <li>Unfortunately at the end, I discovered that I'd made a mistake with recording of co-ordinates so I had to restart some of the work I had already done.</li> </ul>

Tuesday (12/07/2022)	8am-4:30pm 8.5hrs	<ul style="list-style-type: none"> <li>• I continued with the locating of boreholes, but this time I had to convert them to an Excel spreadsheet .</li> <li>• After I finished that, the technician requested me to help her with some admin work .</li> </ul>
Wednesday (13/07/2022)	8am-4:30pm 8.5hrs	<ul style="list-style-type: none"> <li>• Spent the day with the Langa (manager) . We looked at the various quotations provided by material suppliers.</li> <li>• He then explained to me the difficulty of choosing a supplier because some quote small, yet material quality is poor and some quote big, yet overstating most of the time .</li> </ul>
Thursday (14/07/2022)	8am-4:30pm 8.5hrs	<ul style="list-style-type: none"> <li>• Spent my day with the technician, we worked on processing complaints by customers regarding boreholes.</li> <li>• We then carried on filling in tender documents.</li> <li>• We also had to go to the municipality office to deliver documents that were needed.</li> </ul>
Friday (15/07/2022)	8am-3pm 8hrs	<ul style="list-style-type: none"> <li>• Today was my final day at WNA, I was assisting the engineer's representative with documentation regarding boreholes in the various districts in South Coast. As tradition, WNA takes the interns out for lunch on their last day of work, so the team took me out for dinner , and there I expressed my gratitude towards all of them .</li> </ul>

#### 4.2. Daily Diary 2

I did my second-year training with WNA Consulting Engineers from the 01 December 2022 to 15 December 2022 completing a total of 72.5 hrs. Below is my daily diary of my time with WNA Consulting Engineers.

Daily Diary: WNA Consulting Engineers

<b>Total Hours Completed</b>		72.5 hrs
<b>Date</b>	<b>Hours of work</b>	<b>Activities</b>
<b>WEEK 1</b>		
Thursday (01/12/2022)	8am-4:30pm 8.5hrs	<ul style="list-style-type: none"> <li>• Went to the WNA office, the whole team welcomed me with great joy because it had been a while since we had seen each other.</li> <li>• Spent the rest of the day doing office admin with the engineer's representative and technician.</li> </ul>

## WEEK 2

Monday (05/12/2022)	8am-2pm 6hrs	<ul style="list-style-type: none"> <li>I was doing cost calculations today, however due to bad weather, I had to go home early because of roads, bridges leading home were getting flooded.</li> </ul>
Tuesday (06/12/2022)	8am-4:30pm 8.5hrs	<ul style="list-style-type: none"> <li>Spent the day with Langa. We went to the UGU Municipality Office to submit various documents, then afterwards, we spent the rest of the day analysing information and compiling documentation about the next number of boreholes the company was expected to install and the locations at which they were expected to be installed.</li> </ul>
Wednesday (07/12/2022)	8am-4:30pm 8.5hrs	<ul style="list-style-type: none"> <li>I went to site today. Before we went to locate boreholes, we first had to meet with the various councillors in Umzinto who needed boreholes in their areas.</li> <li>Thereafter we were told to meet a lady that will take us to where the boreholes need to be installed.</li> <li>We spent the whole day locating but didn't finish locating all boreholes.</li> </ul>
Thursday (08/12/2022)	8am-4:30pm 8.5hrs	<ul style="list-style-type: none"> <li>We went back to Umzinto to locate the boreholes that we didn't do the day before.</li> <li>After that we had to attend a customer complaint in Mtwalume.</li> <li>After that we went back to the office.</li> </ul>

## WEEK 3

Monday (12/12/2022)	8am-4:30pm 8.5hrs	<ul style="list-style-type: none"> <li>We went to the UGU Municipality to submit documents again.</li> <li>The technician then showed me a project which WNA was going to build which was a bridge. We then analysed the drawings of the bridges, and then she explained how the project was going to be done and the processes involved withing the project.</li> </ul>
Tuesday (13/12/2022)	8am-4:30pm 8.5hrs	<ul style="list-style-type: none"> <li>Spent most of the day doing cost estimations on tender documents.</li> <li>After that, the technician asked if I could assist her with some work that she was doing.</li> </ul>
Wednesday (14/12/2022)	8am-4:30pm 8.5hrs	<ul style="list-style-type: none"> <li>The technician showed me again how to use MIGMIS because I had forgotten how to use it.</li> <li>Then afterwards, I spent the day helping the technician apply for tenders with MIGMIS and getting the required documentation needed for applying.</li> </ul>
Thursday (15/12/2022)	8am-3pm 7hrs	<ul style="list-style-type: none"> <li>This was my last day at WNA and also the teams' closing day for the year.</li> <li>So, I was helping all around because they were trying to finalise applications , documentations and etc , before the end of the day .</li> <li>At the end, I said my final goodbyes and met with Nkosi and thanked him and team for the opportunity they gave me to</li> </ul>

		work besides them.
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### **4.3. Reflective Essay**

In my period of working with WNA, I was exposed to the civil sector of the construction industry, compared to the last company, which was focused mainly on the building side of the construction industry. WNA is a young multidisciplinary engineering consulting firm offering engineering services in the fields of water and civil engineering. The firm was established in 2013 by young, passionate, experienced professionals who saw the need to use their extensive experience to help bridge the gap between basic service delivery in the country, caused by infrastructure backlog. I worked in WNA Consulting Engineers for a period of 5 weeks.

#### Lessons Learnt

At WNA, I got to experience how the civil sector and also how consulting companies work. There, they showed me how they select the best suppliers for materials. I also got to spend a lot of time learning how to fill in tender documents and how to use websites like MIGMIS. I really enjoyed it when we went to locate the different boreholes in Umzinto and when I went to the Mabheleni site.

It was great to see other places of KZN. I got to see how different areas got their water supply, and figured out that for many areas, they still used rivers or dams to get their water supply. This made me realise that KZN is in dire need of another source of water, because the municipality water is not coming in at all. In some areas in South Coast, the last time they had running water was 3 months ago. Also as this trend of water shortages continued, the price of water tanks also significantly increased, therefore making it harder for the ordinary person to buy one. In one of the areas that we went to (Umbhungulu), to locate boreholes, we spoke to another resident and he told us that they had never had running water / tap water in the community and that they had to fetch water from the rivers, which is dangerous water because most of the time it's contaminated, dangerous and this could lead to people in the community getting cholera. He further stated that his community only got electricity in 2021. I was seriously shocked that they were still communities that still didn't have water and electricity. This further emphasised that South Africa still has problems in supply electricity and water in all communities. So, after all of that, I realised how much WNA is beneficial towards the community, with its task of constructing and installing boreholes.

I also got to see how the company interacted with its customers who are the communities. What I discovered was that many boreholes located in South Coast / KZN, were mostly in tightly spaced areas / inside the property of many residents. Another issue I saw was that especially in the case where a borehole was to be built inside the boundaries of a resident, initially they would be agreement with the company when the company approached them and asked if they could install a borehole that would benefit the whole community, however as time continued, the resident would now complain that they didn't want the borehole in their property mainly due to many people going in and out of their property and also

complained about the safety of their property because criminals would now take advantage of the situation and act like they going to collect , but in fact they're going to rob them . For example, one of the property owners started complaining that one of the boreholes was going to be built on his site and he didn't want that because of the people going in and out factor, so they had long meeting with him, luckily he agreed that the borehole must be built.

Another thing the company told me, was that when people discover that a borehole is going to be built on their site, and that the company is willing to buying that portion of land, they would start to demand ridiculous amounts of money for a small portion of land and then that would create more complexity within the project.

In conclusion, I really enjoyed my time at WNA Consulting because the part about boreholes helped me to understand the content covering boreholes in Construction Technology 2, Construction Technology 3 especially the part about water services and supplies and just to understand the civil sector .

### Challenges Faced

Since the company is wired mostly to technology, we had a tough time with loadshedding, because when it occurred, we couldn't continue with work so we had to wait for the power to come back .