



**Master Level - Civil Engineer - Marius Nel**



**Intermediate Level - Civil Supervisor - Alan Henderson**



**Beginner Level - Civil Operator - Ben Verberg**



My name is Ben Verberg, I started a trainee truck driver with Rusca Brothers Mining company and slowly progressed onto a Moxy, which they have taught me to drive and use correctly. I really enjoyed learning to drive such big machinery.



My name is Alan Henderson, current role is Site Supervisor out at the Woodcutter's Mine Site.

Current site responsibilities are:

- meeting our daily targets,
- providing a safe workplace for our employees,
- allocating personnel on machinery and
- monitoring the workplace, workplace inspections, just pretty much making sure the site runs smoothly and efficiently.



I am Marius Nel, I am working on the rehabilitation of the Woodcutters Mine Site that ceased to operate in 2002.

I am the Project Manager on the job, overseeing all the aspects from:

- planning to the
- execution and to the
- closing after the Project.



Typical working day would be to drive a dump truck throughout the day, put the tray up to dump dirt and all that sort of thing. The Supervisors of course, these are the most important people on site, so you are gonna make sure to interact with them.



As an Engineer we have limited interaction with the Operators, we tend to be office based where we process the:

- quality control,
- the budget requirements and the
- commercial aspects of the contract.



People on the floor answer to the Site Supervisor who then takes instruction and workplace needs of the Project Manager.

I report to my Project Manager:

- a daily production report,
- any safety stats also do a
- weekly report that goes back to the head office that we all review and read over.





As the Project Manager I report to the General Manager and I have to provide him with:

- weekly reports,
- a monthly report and
- reports as required at his request.



Some of the interaction I have with the Site Engineer, Marius, is just checking our final designs, our quality of our work and also our quantity, how much has moved. Very important that we stick to our designs, our plans and try to meet all our targets.



The interaction I have with my Supervisor daily is discussing the previous day's production, the plan for the current day, the production required to maintain the planned program and any challenges that we have for that day.



Some of the bigger challenges for new entrants is definitely the longer hours, getting used to focusing on the site on their given task for days and weeks at a time. I have definitely regular chats with the more junior personnel seeing how they are going, making sure they are coping with the longer hours or the conditions.



I work 11.5 hours a day, seven days a week, the way the roster works is 2 weeks on, 1 week off and breaks, you know, in between shifts to make our own lunch.



My average working day and rostered cycle is I work 12-13 hours a day, day shift only on a 2 weeks on, 1 week off roster.



My average working day would depend on the project that I am on. Cycles in the project would require us to work more hours towards the month end periods of the job. When we are looking at starting off the project it's planning, planning, planning and that would require us to spend more time to ensure that we don't miss anything and are ready to start the project on time and deliver it within budget and planned project program.



The way I adjust to hours of work is just making sure you have had good, adequate rest, you are good to go once you are rostered on. So fatigue management is very important.



Fly in, fly out is very common in the industry. I am on a 3 in 1 roster, I work 3 weeks in Darwin and I have a week off in Perth.

At work, I prepare the information that's required that I can delegate to the supervisor to enter the data necessary to keep up with the cost tracking and the planning and the forecasting. I leave my engineering work until I get back.



When I first started, I did rock up late. The Supervisors will let you know where you are going wrong and if you can pick up the slack the next day.



Punctuality is very important for our mining roles. Some of the impacts when people do not show up for shift, is sometimes machines get parked up and not utilized due to not having enough numbers. Some worksites or plans are thrown out due to not having access and the right skilled operators to get into those workplaces.





Good work ethics in construction, boils down to good team work. When projects aren't running well, it's expected from everybody to go the extra mile, do the extra hour, just have a go to deliver the project safely and in time.



Behaviours that's not acceptable to me as the Project Manager is not being a team member, not being reliable and not being committed to the project.



Essential behaviours I expect from our site team is to be on work on time every day on their rostered allocated shift, doing the best to their ability. A good work quality, excellent time management. Definitely listen to your fellow workers, your more experienced operators, take all the information on board.



The Site Supervisor will tell you, other Operators will let you know what you need to do and how to go about it. It's really pretty much a team effort.



Previous experience, being on the tools and the machines all those years, definitely assists in running my day to day role. I originally started off as a labourer, then onto the machines, along the way I have picked up a couple of tickets.

The preparation that's critical in this industry is planning, planning and planning. Three important skills with regards to being an engineer is:

- attention to detail
- cost awareness, and
- thorough planning.



Some of the preparation on the work site that I am responsible for is a day to day dig plan where the actual machines are going to be digging today, where the dump trucks are hauling, whether it's a waste dump or different dump locations and allocating people on machinery, planning the day to day activities to try and meet our planned targets.



One of the routine tasks we have to do is what we call a prestart check where we check the vehicle make sure that it is going to be working correctly, check the oil levels, tyres.



We do a daily inspection to make sure all workplaces are safe, all machines got access to different locations that we must go to and definitely the end of shift report of all our dirt moved, statistics, any hazards. They must be reviewed daily and reported on.





Safety in the Civil Construction Industry is very important. We as Project Managers drive safety above production. As Project Manager I am responsible for the implementation of our safety policies and procedures.

The challenge that I have in the process is for individual employees to accept their role in the safety process and accept safety starts with them.



My most important responsibility is to ensure safety not only for myself but for my work colleagues around me. One of the safety rules I have to follow is the communication between operators, because driving a dump truck they have many blind spots where you cannot see. I had to learn those skills because it's a big machine so a lot can go wrong. First of all, driving a dump truck with a load and without and being able to back under an excavator safely.



My responsibility for safety on the mine site is developing, reviewing, implementing JSEAs, job safety environmental analysis, so work through those with the workers, running site safety meetings, procedures also a few policies.

One of the most important skills that I have learnt is definitely communication, you got to be able to get messages and work instructions across the workers and communicate in the right manner.



In this industry we have a lot of involvement with changes in procedures and policies that we need to keep on top of and ensure that all our policies are in line with that.



It's very important that everyone has read and understood and signed off new procedures and regulations as well as different site rules, state rules and we take that practice to the workplace.



Three site rules would be two way communication, driving to conditions, which is a big one during the wet season, and just making sure you got the right PPE.



Taking up a career in engineering, you start specialising into a specific engineering category and that will determine your path in the construction industry.

In addition to specialising, civil engineering covers a broad range of fields. Rail construction, bridge construction, earth works, road construction. Each project offers its own skillsets and requirements and challenges.



Sometimes I am involved in managing new tasks, sitting down with the engineer, making sure we have got the right machines as well as the skilled personnel to man up those machines.





My studies, my education gave me the tools necessary to analyse and adapt and process what's required for each specific job that we are doing. I share my skills and knowledge with the supervisor based on positive communications, explanations on specific issues, spreadsheets and templates that have been developed over years of involvement with the construction industry to streamline and simplify the construction process.



Sometimes I sit down with the Engineer and discuss our designs, sometimes conditions change due to maybe the weather, digging material, sometimes we must modify our designs or change our work plan to suit.



My role as the Engineer on site is to review the design for the specific project, to look at any discrepancies that could be conflicting with the design and raise that in a request for information to the client to get clarification or changing the design to make it more practical.



What I find most challenging, is that this industry is ever changing, you are not always doing the same thing over and over, you know each day comes with its own challenges.



The career path in construction and mining is not as straightforward as in other industries, there is various ways of getting involved. For a Civil Engineer you do a university degree that would then allow us to go into the entry level as a Grad Engineer work our way up to become a Site Engineer, then become a Project Engineer, and Senior Project Engineer, eventually a Project Manager.

The other venue is a operator getting involved with plant operating, with further coaching and mentoring from Supervisors, becomes a Supervisor, working his way up, eventually finding himself in a leading role.



I see my future in the industry as a Project Manager, there is a few courses available for project management that I definitely like to get into and set that pathway for my future roles.



At the moment I am at the end of my Cert III. Hopefully after I complete that, I can go into my Cert IV, try out for a position like Site Supervisor.



Construction projects by definition has a start and finish and that's what keeps me interested because it finishes and you get another project to go and work with. With that experience that you gain by working on various projects, it opens up doors internationally and you'll be able to work across the world in different fields.

