ENV 301
Practical: Land Cover Assignment 2017

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Land Cover investigation (Practical)

Land Cover Sample Site data Sheet

Group Name: The Geotech Analysts

Members in the group:

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Site: We investigated a parking area on Groenkloof campus that was empty during our investigation.

City/ State/ Country: Groenkloof, Pretoria, Gauteng, South Africa

Measurement time: 2017, May, 19 starting measurements at 10:50 ending at 11:06

Coordinates:

	Latitude	Longitude
A	-25,767957	28,205880
B	-25,76792	28,20610
C	- 25,768135	28,206069
D	-25,76791	28,20579
E	- 25,768109	28,205704

Site description: Describe to the best as detailed (30m x 30m)

<u>Soil description</u>

Figure 1

Figure 2

Figure 3

If one looks at the photos from the soil one will notice that in all three photos the soil contains a lot of rock. In figure 1 the ground is rich enough for plant life to grow but can't because of the rock thrown on top of the soil in order to make it easier for cars to park. In figure 2 one can notice the sand that was thrown there to create a barrier for the parking spaces. Our middle point also falls on this particular piece of soil type. This is compressed sand with rock in it. This sand is not fertile as their currently no plant life growing there. Figure 3 is a picture of the same soil type as picture one this soil is looser garden like soil that is fertile, but the plant life that grows here is compressed by the cars that park here.

Vegetation at the site

As seen in the photos above, you will notice that the big tree has an impact on the vegetation covering the soil. Its big roots pushing through the soil and grass, causes bumps on the grass.

Figure 1

With the large spaces of grass that's withered, one can assume that it's partly because of the shade the tree is casting over these areas, because of the lack of sun it receives. Over all the grass isn't in very good condition, but this can because of a number of reasons.

Figure 2

Figure 3

As we were taking the coordinates, we noticed that there's no water around, telling me that the only water this area receives is when it rains, also causing it to be so withered.

Here one can see the weeds growing on the grass. This, also doesn't help with the withered state. Weeds tend to consume all the nutrients and water in the soil, leaving

very little for the grass to feed on, making it fade and weaken even more.

Bad vegetation cover means that less biodiversity will be found within this area, neither a big variety of animals, making it a less desirable area to visit. It isn't as attractive as other areas consumed by lushes' green bushes and grass.

<u>Human impact</u>

Within our allocated area few examples of human interference were found. On the surface a graveled road is present, where sediments of the gravel have shifted out of their allocated area, creating uneven borders. There are two parallel stretches of this temporary road. Upon the gravel road, influence of human activity is also present where tire treads are visible implying that humans regularly move around in this area. A lamp post is present that has been placed there by service members. It is made from concrete and steel and stretches higher than eye level. It is located in the corner labelled E. Small pieces of plastic are present on the site too. It seems that these are just left over pieces of paper that could not be picked up by hand, but could be an indicator of possible pollution problems that might occur in the future.

<u>Site Photos</u>
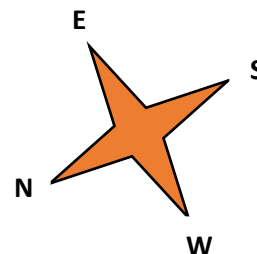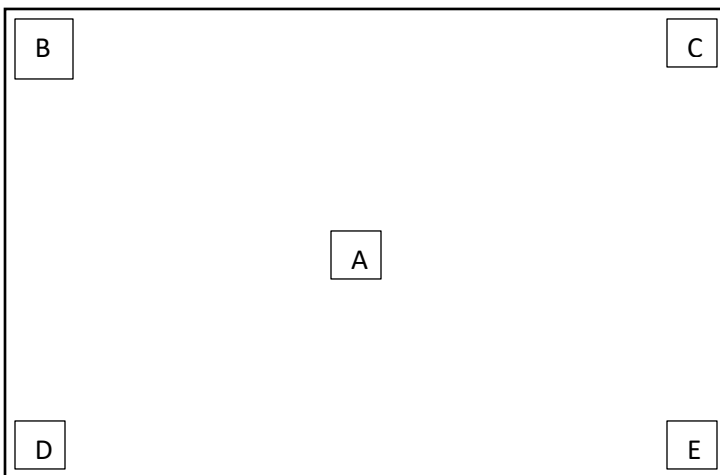
Site A (Middel):

Site B (Chantel Viljoen):

Site C (Andre Moolman):

Site D (Peet Schoeman):

Site E (Zaudi Falzone):

Comments:

The area consists of mostly compacted ground and is evenly levelled at most spatial areas whit in our parameter. Therefore, it could be used for not only parking but events or even construction of buildings as there is no signs of any instability.