



Your ref :

Our ref : 006/cfs

ACER (Africa)
PO Box 503
Mtunzini
3867

28 June 2007

Attention: Dr. R-D Heinsohn

Dear Dieter,

GAMMA GRASSRIDGE 765 KV TRANSMISSION POWER LINES (X2) AND GAMMA SUBSTATION – COMPARISON BETWEEN THE GAMMA AND KLEINFONTEIN SUBSTATION SITES

You have requested a short report to highlight the comparative impacts of the two proposed substation sites and to express an opinion as to which is the preferred site. The transportation issues are as follows:

Gamma

Access will be off the R63 and via a local gravel road. Traffic on the R63 is very light and a fairly low standard intersection should suffice. Traffic using this intersection should not have a significant impact on through traffic on the R63. (Even during construction).

The loads imposed on the R63 north of the N1 are limited (One s/station and 32 towers) and will not be significant in terms of the lifetime design of the road.

Kleinfontein

Access will probably be sought off the N1. (There is an alternative access route via a local gravel road but this is long and tedious, especially during construction.) Vehicles using this intersection could cause a serious hazard on the N1 and a substantial upgrade of the existing intersection will have to be constructed if this was to be avoided.

The loads imposed on the N1 (for the section of line north of the N1) are limited (One s/station and 37 towers) and will not be significant in terms of the lifetime design of the road. Should the s/station be built at Gamma, these loads will still be transported on this section of the N1.

N1 / R63 Intersection

Due to the very high volume of traffic (and high percentage of heavy vehicles) on the N1 it may be necessary to consider safety measures at this intersection. This will be limited to the construction period and will probably consist of speed reductions on the N1 as well as rumble strips in combination with signage (Heavy vehicles crossing / turning).

Depending on where construction materials come from (Jhb or PE) this could be relevant to Gamma only, or both.

In summary then, from a transportation point of view, Gamma is preferred to Kleinfontein.

Regards,



Freek Serton
Masise Consulting Engineers cc