

ANNEXURE C3.2: SCOPE OF WORK

GRADING AND MAINTENANCE OF GRAVEL ACCESS ROAD.

PURPOSE

Rand Water - Environmental Management Services maintains the gravel access road through Rand Water Farm and currently requires quotations from Service Providers with previous experience of road grading and construction to safely undertake the maintenance and grading of the gravel access road.

BACKGROUND

The entire gravel road linking the two tar roads is to be graded. Portions of the gravel road need to be closed off during construction and this is to be undertaken in accordance with legislation providing both the necessary warning signage, barricading and staff to control and direct motorists safely through the construction area for the duration of the work. The existing surface drain on the southern portion of the gravel access road that channels water currently surfacing adjacent to the road is not to be removed as this prohibits the water crossing the gravel road and creating wet areas.

Sixty cubic meters of G5 material is to be supplied and delivered to site and used as filling in areas as indicated on the site sketch plan. No solids more than 100mm X 100mm within the G5 material will be accepted. A sample of the G5 material to be supplied and must first be approved before being delivered to site. Soil / gravel currently on the verges of the gravel road is to be graded onto the road and used as fill to level the road and create the desired road camber in order to remove storm water off the road and reduce any pooling of water. Where surrounding soil levels are higher than the road and water is likely to cross the road these soil verges can be used to channel water down the side of the road to the next water off shoot. Care must be taken so as not to grade deeper than what is required to create the desired road camber, causing disturbance to the existing compacted road base.

The existing water off shoots are to be graded to aid water in flowing off the gravel road and not returning to cross the road again at a different point. The water off shoots is to be opened a minimum of 20m in length and must gradually get deeper to allow for some silting and should be approximately 500mm deep / lower than the road surface at its furthest point from the road. The mouths of the water off shoots are to be neatly raked to ensure that water running down the verges of the road exit the road at the next available water off shoot and do not continue to run down the verge of the road or cross the road again.

Once the road has been graded, the road is to be watered with a water cart or water truck and then compacted with a minimum of a 3-tonne compactor to bind the materials graded onto the road.

The existing concrete deflection berms should not be damaged with the grading and compaction of the road and the level changes approaching and leaving the berms is to be gentle so as not to pose a danger to motorists using this access road.

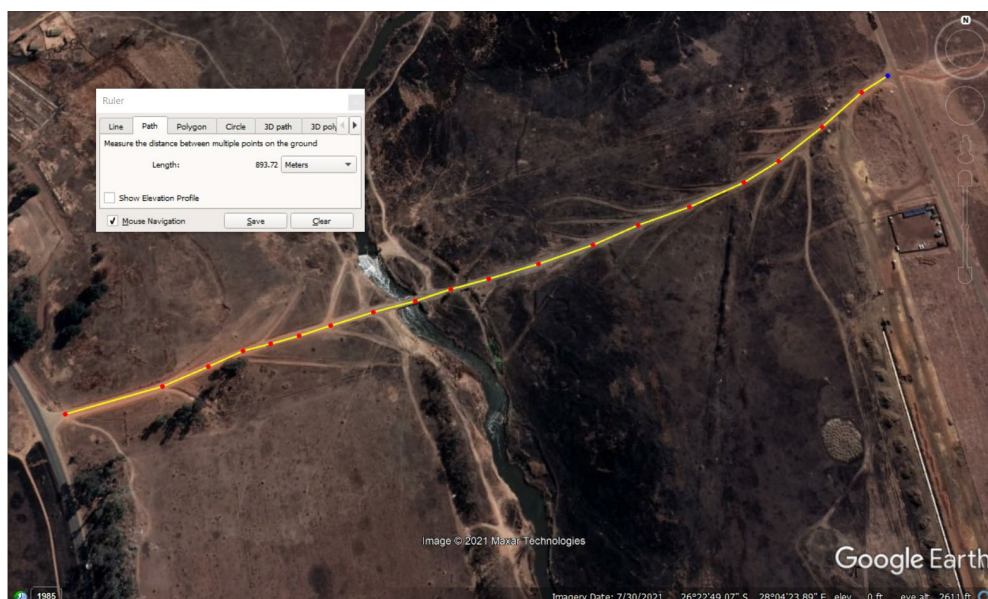
All concrete, tar and paved areas along the gravel access road are to be swept clear of any surface soils once grading and compaction is completed, and all concrete bollards are to be returned and securely compacted into position adjacent to the deflection berms if removed for grading purposes. The appointed Service Provider will be required to provide Rand Water - Environmental Management Services with their SHE file complete with all appointments and copies of staff Identity, drivers licences and operator certificates. Once the SHE file has been approved all staff undertaking work on site will be required to attend a safety induction prior to commencing on site.

OBJECTIVES OF THE WORK.

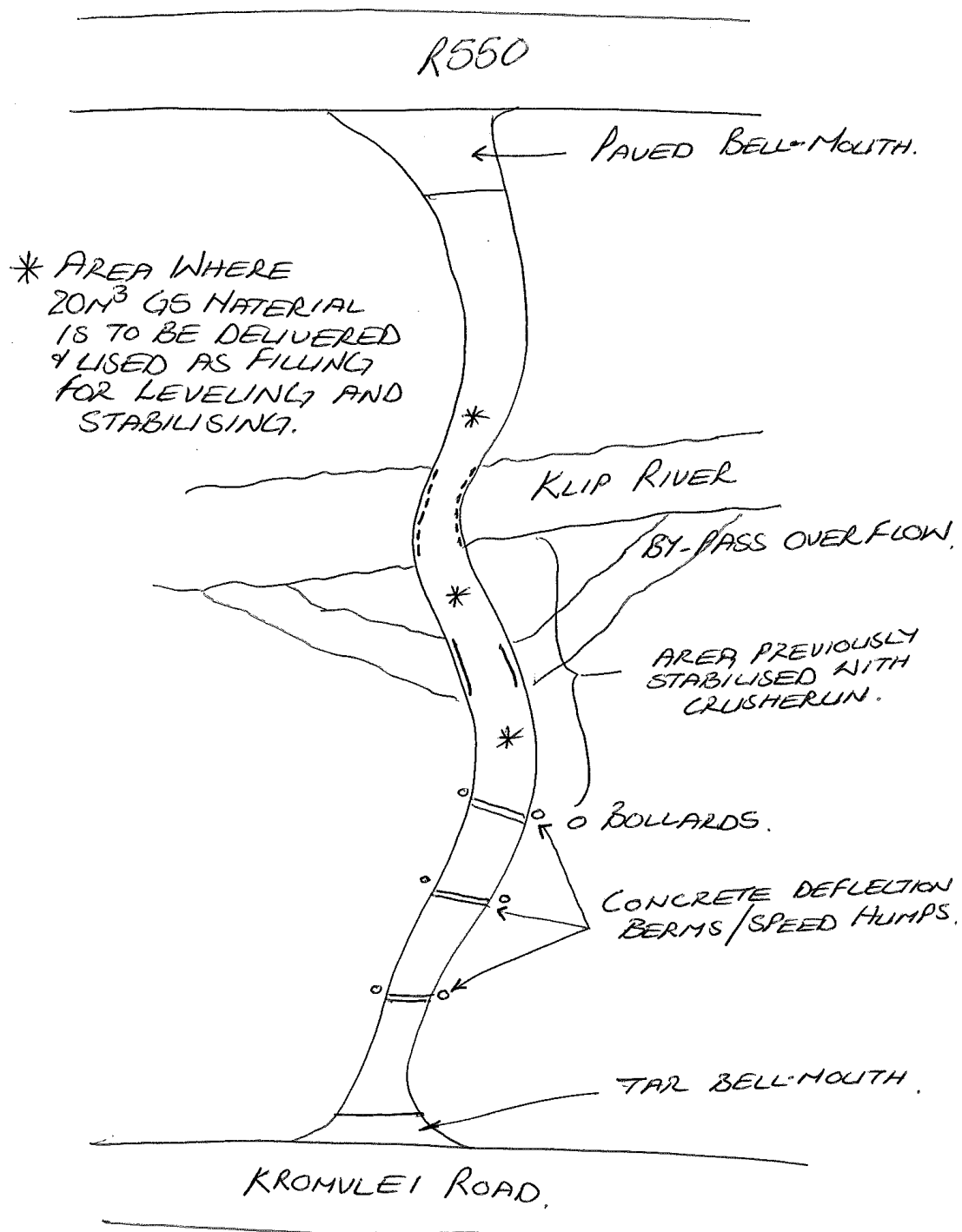
- a) To safely grade and maintain the gravel access road through Rand Water farm.
- b) To reduce the need for Rand Water staff travelling between Vereeniging or Zuikerbosh to either Central Depot or Zwartkopjes and vice versa from taking alternative longer routes to avoid the gravel access road.
- c) To reduce the risks of vehicles being damaged or getting stuck on the gravel access road.

GRADING AND MAINTENANCE OF GRAVEL ACCESS ROAD.

Google earth measurement of the length of the gravel access road through Rand Water Farm.



GRADING OF GRAVEL ACCESS ROAD @ RW FARM.
SITE SKETCH.



Surface drain on the South of the gravel access road not to be removed.



No.	Operational Area	Delivery Location
1.	Environmental Management Services - Nursery	EMS Corporate offices - 143 IR Kromvlei Road, Johannesburg. 26°22'40.49"S 28°04'33.39"E