

New Technology to Fast-track Gerji Road Construction

The Israeli technology affects the soil underlying the asphalt to build cheaper, more durable roads

A new road construction technology from Israel, which involves changing the soil density by treating it with an enzyme, and which costs around 650,000 Br, is to be used for the road from Imperial Hotel to Yerer through Gerji.

Clearing work of the road, which has remained damaged for a long time despite being repaired many times, started a month ago.

The road required repeated maintenance due to the absorbing nature of the soil and the imperfectly designed drainage system, Fekade Haile (Eng), manager of the Addis Abeba City Roads Authority (AACRA), said during a site visit on Thursday, December 9, 2010.

Although the enzyme Zym-tec is produced and imported by I Tec W Ltd, an Israeli company with a branch in Ethiopia, the AACRA is responsible for the overall construction of the road.

The technology allows for the use of the already existing road without having to excavate it to fill the layers under the asphalt with selected materials. The chemical, which is composed of natural materials, will be poured and mixed with already existing soil and made dense enough to handle heavy loads, according to Atoon Yosef, the sole owner of I Tec W Ltd, the company providing the solution.

"Involving three layers of 20cm, the road is to be 60cm thick" Fekade told *Fortune*. "The first and the last layers will consist of soil treated with Zym-tec and compacted to have the appropriate density while the middle layer will only be soil."

Once the layers have been compacted and readied, imported asphalt in a layer eight centimetres thick will be laid instead of the usual 12cm.

The new technology will save the authority 40pc on the total financial costs and 50pc on cement expenses, Fekade claimed.

Only 600 litres of enzyme is needed to construct 5,000sqm of road, claimed the company providing the technology. To test the technology before using it for the construction of the three-kilometre road, the authority had tested it on 350 metres in front of Imperial Hotel.

"We have tested the technology on this road for the past year and it is still in good condition," Fekade said.

Although the clearing work has been finalised, the construction of the road has not started yet, as the AACRA constructs the drainage system.

However, 1.7km of the road will be made available for cars paved with the new

By GIRUM GETACHEW

FORTUNE STAFF WRITER

technology but without the asphalt this week, according to Abreham Muse, business developer of the project.

"Even if there is no asphalt covering, the road with the treated layers can manage the traffic without being damaged," he told *Fortune*.

The roads authority seems content with the new technology and is counting on it being a solution to be used in future road projects.

"The days of excavating stones to build roads are over," Fekade said during the site visit.

The Israeli company is standing by its technology, which it says it has been tried in Brazil, Spain, and Israel.

"We have given a five-year guarantee on the new road," Abraham told *Fortune*. "If there

is any damage we will fix it right away."

The company offered a shorter guarantee than the usual 10 years for road construction projects as it did not design it itself, according to Abraham.

For concrete asphalt, which carries heavy traffic, the design period is 30 years and for liquid asphalt it is five years, according to Belay Wakgira, former traffic engineer with the authority.

"It is not advisable to test new technology on a road that carries as high traffic as this one," he told *Fortune*.

If the new technology turns out as it is touted to be, it will be a relief to residents in the area who have had to endure inconveniences due to the repeated damage of the road for a long time. The clearing of the road has left it bare, causing dusty conditions. In addition, a lack of alternate routes is still an issue of complaint.

Yohannes Getahun, 35, has lived in the neighbourhood for the past seven years and now resides with his family in one of Sunshine condominiums in front of the main road construction. He spends most of his time commuting and is unhappy that there are no proper detour signs.

"Although I understand that sacrifices need to be made for better things to come, the lack of concern and preparedness is annoying," he told *Fortune*.

Internationally recognised signs about the construction work are not utilised.

"Drivers only know there is an alternative road when they see other cars taking it," he said.

However, the worries of residents should not be long-lived, according to Fekade.

"The construction of the road will be completed within two months," he said



VOLUME 11 NO. 554, SUNDAY, DECEMBER 12, 2010

CONTENT MATTERS