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Helping innovate to improve service delivery in outlying areas of South Africa

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BY: CREAMER MEDIA REPORTER

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While ageing infrastructure remains a significant challenge in rural areas, this is an opportunity for smaller municipalities and their supply-chain partners to find innovative ways of developing and maintaining the assets they need to provide services to the poor. Shaun Hadkinson, CoreSlab's sales and marketing manager, says that the need to innovate to improve infrastructured livery is also reiterated in an inclusion in the latest Municipal Infrastructure Grant (MIG) guidelines.



"They help municipalities in the B and C categories accurately estimate unit costs when applying for funding for infrastructure from national government. The addition emphasises that municipalities need to consider innovationin the full spectrum of infrastructure technologies and associated operations and maintenance solutions. These will greatly assist in bridging the growing infrastructure deficit in outlying areas and ease maintenance requirements of important service-delivery assets," Hadkinson says. CoreSlab has long been associated with high quality infrastructure projects in rural areas of the country, and it continues to work closely with various municipalities and their professional teams to pioneer new ways of accelerating the delivery of critical social development and economic service-delivery assets.



A case in point is a 10 mega-litre (Ml) reservoir that has been built with precast concrete elements to significantly fast-track a reliable supply of water to a rural area of Mpumalanga.

This area has been grappling with water shortages for many years, and its municipality will be the first to use CoreSlab's new precast concrete water-retaining wall system.

It is being used alongside the company's tried-and-and tested precast-concrete roof structure system, which has shaved months off the construction time of reservoir projects to ensure timely completion of the structures.

The reservoir wall and roof technology is based on more than 11 years of experience designing and constructing precast-

concrete systems, especially for municipal water-supply systems, including treatment works and pump-booster stations.

During the research and development phases, significant emphasis was also placed on the design of the technology that is used to connect the precast-concrete wall slabs to provide a water-tight structure.

The project has served as an important testing ground ahead of the imminent commercial launch of the system to

complement CoreSlab's precast-concrete roof offering, and Hadkinson has already introduced the technology to a number of South Africa's leading engineering firms.

While the technology will allow municipalities and waterservice authorities to further accelerate storage capacity, the high durability of all of the company's precast-concreteelements has become an equally important selling point for CoreSlab's sales team.

This is considering that funding for operation and maintenance remains a significant challenge, especially for smaller municipalities.

Budget cuts to provincial governments and municipalities earlier this year has further hindered their ability to provide services in a cost-effective and sustainable manner.

"All of the elements manufactured at our factory are at least 50 MPa, contributing towards a more robust final structure that requires minimal maintenance. Manufacturing them in a controlled environment has also ensured a consistently high quality system that has a direct bearing on precision and productivity levels our installation teams maintain on site," he says. This is also one of the main reasons why so many municipalities prefer CoreSlab's precast concrete stadia for the construction of their sports and recreational centres.

It competes against other construction materials, such as steel, which requires frequent maintenance.

The company's stadia systems have been used on the lion's share of these socio-development projects in Limpopo,

and CoreSlab continues to work closely with municipalities in the province and their professional teams to refine the technology.

Hadkinson says that he is encouraged by the ongoing focus on the roll out of this infrastructure in poor areas of the province,

considering the important role that they play in keeping youth motivated and productive members of communities.

Moreover, they are an important source of opportunity for emerging contractors and community members during the construction phases under the MIG-funded Expanded Public Works Programme.

He remains concerned that most of the focus has been on attending to the demands of increasing urbanisation, considering that government spending on infrastructure has also not kept pace with the investment demands of population growth in the major cities. This has been to the detriment of rural areas, and severely weakened their administrative structures and ability to attend to poverty, inequality and unemployment.

"The Integrated Urban Development Framework notes the need to also fast-track the development of rural areas. They coexist with their urban counterparts, in terms of production, trade, information flow and governance, while sharing structural, social, economic and cultural linkages. These connections need to be significantly strengthened to enhance national growth, and we look forward to being part of the solution," Hadkinson concludes.

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