



# INFRASTRUCTURE SOLUTIONS



## OCIS 60GPA FIBERGLAS™ REBAR ZAYED ROAD NETWORK SECANT PILE APPLICATION

MINA ZAYED AREA 01 – ABU DHABI, UAE – 2020

### Project Type

Construction of Zayed Road Network in Mina Zayed Area 01 Main Tunnel, Abu Dhabi UAE

### Owner

Department of Transport (Musanada)

### Consultant

Tebodin/Parsons

### Contractor

Itinera- Agility JV

### Sub-contractor:

Bauer International FZE

### Application:

Secant Pile

### Project Overview

The circular design needed to provide a design requiring a combination of moment and shear loads. Design safety and performance under combined loads were checked and approved. The use of fiberglass rebar (also known as FRP, GFRP or composite rebar) allowed for an economic and safe design.

Owens Corning Infrastructure Solutions (OCIS) 60GPa Fiberglass™ Rebar was used in an area of the main tunnel where the structure will be subjected to heavy loads. The high tensile strength and high modulus of elasticity were ideal plus it allowed for good splice lengths. With the high values of OCIS 60GPa Fiberglass™ Rebar the weight was a lot less compared to other suppliers.

### Why is fiberglass rebar ideal for secant pile applications?

Overall, fiberglass rebar provides a lightweight and corrosion-free material for secant pile applications. It's quicker to work with, easier to cut, and provides a 100-year service life.

