

Project:

Cairo University - Saft El Labn Viaduct

**Repair Cairo University - Saft El Labn Viaduct
 Mbrace FRP system**

Location:

Cairo

Project completion:

2010

Owner/s:

Greater Cairo Urban Authority

Main Contractor:

Arab Contractor – Bridge Sector

Repair Applicator:

El Galy (Adel Galy)

FRP Consultant:

GS CONSULTANT (Dr. Mashoor)

Products used:

MBRACE FIBRE CF 120 (600m2)

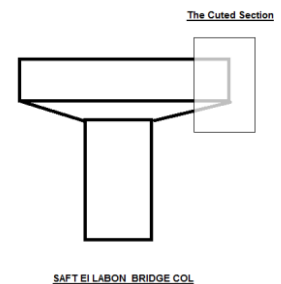


The Background

The scope of work of Saft El Labn viaduct is to serve the western entrances of greater Cairo, the new viaduct linking Tharwat Bridge and Sudan Street with the Ring Road through 4.5km concrete bridge one level. the bridge in some areas have two levels to reduce traffic density on 26 July viaduct, The project total value about EGP 435 million.

The Challenge

The New Project has been modified after construction and before final usage according to the designer modification, the Concrete and steel section have been cut, so we have a problem in shear, torsion and moment.





Mbrace Features and Benefits:

- An increase in load-bearing capacity (e.g. in structural conversion, following a change in load capacity)
- A reduced deflection due to serviceability/ working loads (increase in rigidity/stiffness)
- An increase in structure fatigue strength
- An ability to limit or assist in crack control (increase in durability from chlorides and freeze/thaw)
- Less and faster maintenance, thereby reducing long-term, ongoing costs

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Master Builders Solutions is built on the experience gained from more than a century in the construction industry. At the core of the Master Builders Solutions brand is the combined know-how and experience of a global community of MBCC construction experts, who connect with you to solve all of your construction challenges.

Further information is available at:

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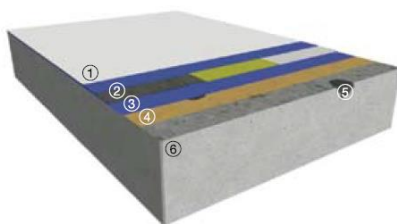
More Information

The Extreme Technical issue in repairing such a project is by applying 10 layer of Mbrace Fiber CF120 to overcome the huge reduction in moment, shear & torsion stresses

The Solution

The MBrace FRP composite strengthening system is the ideal solution for this case as it's provide a high tensile strength and excellent for supplemental flexural and shear reinforcement of concrete slabs and beams.

MBrace[®] Fibre



1. Topcoat
2. MBrace[®] Fibre Saturant
3. MBrace[®] Fibre
4. MBrace[®] Fibre Saturant
5. Concrete 2100
6. Substrate

