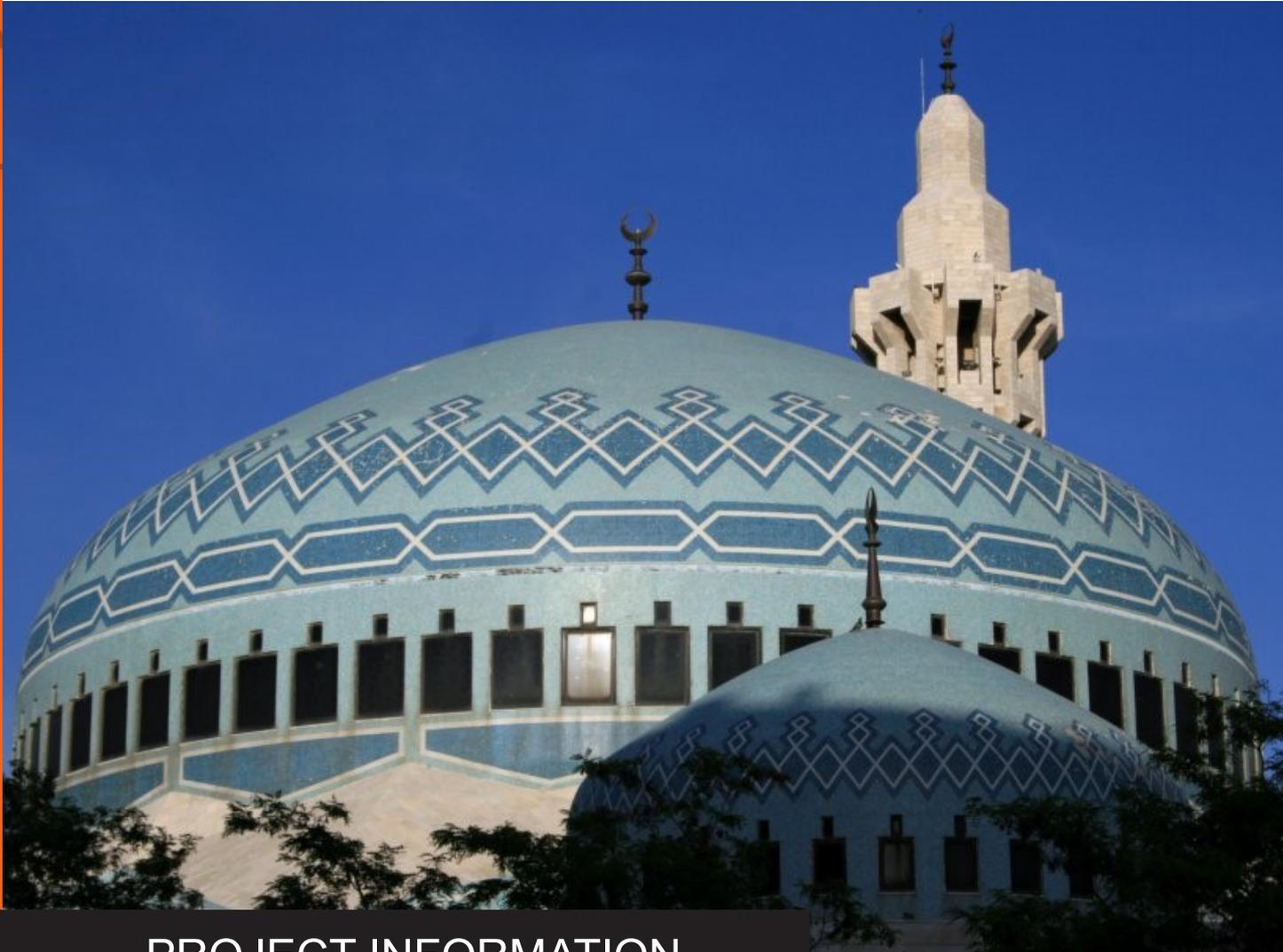


Case Study



PROJECT INFORMATION

Project name: King Abdullah I Mosque - Dome Maintenance

Client: Ministry Of Awqaf and Islamic Affairs

Consultant: The Roots Consulting Company

Contractor: Al Taleah Contracting Co.

Location: Amman, Jordan

www.dcp-int.com



expertise



quality



full range



PROJECT REQUIREMENT

Task at Hand

Considered one of the most significant mosques in the Kingdom, King Abdullah I Mosque or as known as “**The blue-domed mosque**” was built in the 1980s in the heart of downtown Amman by the late King Hussein as a memorial to his grandfather.

The signature blue dome mosaic, in this beautiful piece of contemporary architecture, required some maintenance after signs of corrosion and deterioration emerged on the surface of the dome, caused by years of environmental stress. The mosaic tiles were severely damaged, and needed to be replaced with new blue tiles.

The project specifications required providing a high-performance tile adhesive and tile grout system, with exceptional mechanical strength to provide the desired protection for the dome’s surface. Since the dome is constantly exposed to external weather conditions such as rain, wind, snow, temperature and climate change, durability was the key focus of the project.



www.dcp-int.com

DCP SOLUTION

Tile Adhesive

To overcome the potentially problematic weather conditions, and given that single component cementitious tile adhesives do not adhere well to glass mosaic tiles; **Cemfix 2CS**; a high performance two-part cementitious tile adhesive was selected. It has far better adhesion when compared to the single-component cementitious tile adhesives and can be used for the adhesion of interior and exterior tiles, stone materials, as well as some special tiles such as the glass mosaic tiles in this case.

Cemfix 2CS offers exceptional mechanical and bond strength, extended open time, excellent slip resistance, good workability, resistance to the variations in temperature as well as non-sag ability, making it the ideal tile adhesive for fixing the tiles over the dome-shaped substrate.



Tile Grout

In most cases, epoxy tile grout is used with glass mosaic tiles. However, when used externally under sunlight, epoxy based tile grouts have the disadvantage of becoming extremely brittle, they are also susceptible to yellowing under the sun compared to cementitious tile grout. Therefore, **Cemafill 2CS**, a two-part cementitious tile grout, was selected for grouting the dome glass mosaic tiles.

Cemafill 2CS provides the optimal abrasion resistance for higher durability, uniform colour for aesthetic purposes, exceptional mechanical and bond strength to glass mosaic and low shrinkage rate which ensures minimal risk of cracking.



www.dcp-int.com

DCP SOLUTION

To prep the dome, all old tiles were removed, the surface was prepped and all necessary repairs to the concrete substrate were done. Then, the new blue glass mosaic tiles were laid over **Cemfix 2CS** tile adhesive that was applied to the dome of the mosque. Once the tiles were set, **Cemafill 2CS** tile grout was used to grout the joints between the blue glass mosaic tiles.



Products and Quantities Supplied

Cemfix 2CS	11,825 kg
Cemafill 2CS	4,280 kg