



AL BAYT STADIUM QATAR, UNITED ARAB EMIRATES

Following a high level analysis of the value engineering proposal, BuroHappold Engineering's Smart Space team were appointed by gmp Architekten von Gerkan, Marg und Partner to provide a FIFA compliance review and a detailed crowd flow simulation to assess the Al Bayt Stadium project in Qatar. The Al Bayt stadium will be able to receive approx. 70,000 spectators and will host some of the main matches of the 2022 FIFA World Cup™.

Our goal was to inform the architects about the tournament's requirements regarding people flow and make sure that the design provided a world class experience for the spectators. For this, it was essential to understand the characteristics of a World Cup event and the particular impacts on people flow inside a venue adapted for the tournament.

The study took into consideration the operational requirements for fan segregation and showed how this

could be achieved according to the stadium operational plan. Our people flow assessment analysed the stadium performance during a World Cup match considering separate accesses and flows for the different audiences (General Admission, Hospitality, VIP, VVIP and Media spectators), according to the requirements from FIFA and the Supreme Committee, as well as International Standards.

Using static analysis and detailed models of the match day for all critical scenarios, we helped optimise the queuing system, maximising the use of the available space for toilet and concession waiting areas. The study also helped optimise the number of required turnstiles by analysing different access configurations for tournament and legacy matches. In addition, we have provided advice on other factors influencing crowd control such as desire lines and visibility.

CLIENT

gmp Architekten von Gerkan, Marg und Partner

ARCHITECT

gmp Architekten von Gerkan, Marg und Partner

DURATION

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SERVICES PROVIDED BY BUROHAPPOLD

Smart Space – People Flow & Space Analysis and Inclusive Design