



Mega Arch, Various locations

Client Total Solutions

SWH provided structural and civil engineering design services for a new retail park located within a flood plain.

In conjunction with Total Solutions, the 'Mega Arch' was developed by SWH - a large span aluminium arched roofing system for outdoor events.

We undertook analysis to confirm the viability of the system in a variety of span and height configurations.

Extensive three - dimensional analysis and code check of all elements of the structure included:

- Temporary load cases considered to account for the sequence of erection.
- Different payload and wind load scenarios considered.
- Checks for wind speed of 25 m/s with the structure clad.
- Development of span capacity tables for new Mega Arch ladder beams.
- Analysis and capacity checks on new bespoke extruded aluminium profiles.

This new system has been used successfully for New Year celebrations in Singapore and Creamfields, UK amongst other well-known events and locations.

