



Middleton Arena, Leisure Development

Type of System: Gas Barrier and Ventilation

Date of Installation: 2008

Site Problem:

A gas barrier and ventilation solution was needed on this contaminated site. There was a basement level to approximately a third of the building footprint that required a gas and waterproofing solution. The remaining footprint was for gas protection only. The site was extensively piled with ground beams, which frequently leads to a complex gas protection system.

Solution:

Gas Venting:

Geovoid 52/96 gas venting strips were laid at predetermined centres beneath the gas barrier to provide a clear and defined pathway for the dilution and dispersal of ground gases. The design team created an elegant solution to what could have been a complex system – a 75mm zone was created between the beams and the slab, to enable the Geovoid to run without interruptions, and so maximise the efficiency of the gas venting. The vent strips were connected together via a Geovoid manifold and vented to atmosphere using Aldervent ground level units.

Gas Barrier:

A combination of gas barrier materials was used to provide a fully integrated solution. The pool or basement horizontal areas were protected with Tuflex membrane, with fully welded laps. Alderprufe MR50 & Backerboard HD was used on the basement walls, and Alderprufe GRA to the remainder of the building. Aldercourse GRA gas barrier DPC was used in load-bearing locations. Preformed collars and cloaks were used at steel stanchions and service entry pipe locations, which is fully in accordance with all published guidance.



GEOVOID 52/96

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Summary:

- The straightforward design and installation of the Geovoid 52/96 gas venting strips meant a simple solution could be found to a complex problem.
- The wide range of Alderburgh products meant a complete solution could be found and provided by the design team.
- Alderburgh's experienced installation team, Solutek Environmental, could completely install the system in a quick and efficient manner.

