



GARTCARRON FIRE ENGINEERING Ltd.

Recent Work

Fire Engineering Solutions

1. **Care Home (Scotland)** – Provide an alternative automatic suppression system within lift shafts where a water based system was not appropriate.
2. **Sports Club (Scotland)** – Provide an alternative solution report to justify the provision of an escape stair from a first floor office in an unprotected zone.
3. **Hotel (Scotland)** – As part of the refurbishment and extension to a listed building provide a suitable solution to resolve the issue of excessive travel distance from bedrooms accessing a single stair.
4. **Flatted Development (Scotland)** – Within an existing building develop an acceptable strategy to over-come short comings in the structural protection of an external access walkway without having to decant all tenants and completely remove access walkways.

The reports contained written commentary to describe the issues and why following the technical guidance would be both unreasonable and impractical.

Proprietary two zone fire modelling software was utilised to demonstrate that the functional requirements would be met by the solution proposed in both instances.

Fire Escape Strategies

1. **Care Home (Scotland)** – Examine the plans for a proposed nursing/ care home at an early stage of design. Provide a report that allowed the removal of one set of escape stairs and as a result provided two additional letting bedrooms. As a result there were lower construction costs, all be it they were offset by-slightly higher fit out cost, and higher long term income from-the project for the owners.
2. **Residential Building (Scotland)** – Examine the proposals for the conversion of two flatted properties back into a large single dwelling over three floors. Due to the age of the building it contained many highly decorative original features including a very fine open timber stair and extensive timber panelling and doors. The building could not comply with the current building requirements without losing many off these features. A report was provided that argued that the functional standard could be adequately met through the provision of a domestic sprinkler system covering the stair and the installation of enhanced domestic smoke detection.
3. **Night-Club (Scotland)** – Provide a strategy that allows an increase in occupancy capacity for a over two upper floors, utilising the existing stair capacity.

4. **New-Build Retirement Complexes (Scotland)** – Provide a number of reports in relation to new-build retirement complexes with regard to the inclusion of an atrium within the centre of the building that passes through all upper floors.

Fire Risk Assessments

1. **Distilleries (Scotland)** – Various Risk Assessments on distilleries across Scotland, including visitor centres and warehouses used to store maturing whisky sharing the same site.
2. **Bonded Warehousing (Scotland)** - Various warehouse facilities, including associated operations such as cask filling and emptying and bulk transportation.
3. **Enclosed Shopping Centre (Scotland)** – Carry out a suitable Fire Risk Assessment covering those areas under the direct control of the landlords in a large mainly single storey enclosed shopping centre with a fully fire engineered solution installed. Due to the inherent issues within the premises it does not fully comply with the current guidance on such premises. The risk assessment recognised these issues and provided comment on the procedures and policies in place and the suitability, or otherwise, of the existing fire safety measures. The risk assessment also identified areas where an over provision of fire safety measures. By discounting these measures significant long term maintenance requirements were avoided.
4. **Licensed Premises (Scotland)** – Various Fire Risk Assessments for a number of different licensed premises, some of which were multi-storey nightclubs.
5. **Care Homes (Scotland)** - Various Fire Risk Assessments on a number of different Care homes, including new-build and existing.
6. **Aircraft Hanger & Offices (Scotland)** – Carry out a Fire Risk Assessment on a newly built aircraft hangar and office building.

Fire Safety Advice

1. **Distillery (England)** – provide confirmation that the external finishes proposed for a conversion of part of a distillery meet the fire resisting requirements where the building is situated within the hazard area of low pressure gas holder.
2. **Bonded Warehousing (Scotland)** – Provide a strategy to significantly reduce the provision of portable fire-fighting equipment within large whiskey storage warehouses.
3. **Multi-use Grade “A” listed baronial style country house (Scotland)** – The building was undergoing complete renovation and conversion. The advice was consistent with the proposed multiple uses once renovations are complete. Examples of advice; - protection of escape stairs; escape routes; the need for sprinklers in line with Scottish Government requirements for premises offering care facilities.
4. **Residential Building (Scotland)** – Provide advice to owners of a residential building relating to the protection of open stairs serving part of the first floor.
5. **Museum (Scotland)** – as to the scope and interpretation of the Fire (Scotland) Act 2005 and associated regulations in relation to employees and means of escape.

6. **Equestrian Centre (Scotland)** - Provide a written "Fire Action Plan" to the owners.
7. **Enclosed Shopping Centre (Scotland)** – Provide general fire safety advice on: -
 - A suitable fire strategy for the shopping centre;
 - Major structural alterations to a main entrance in respect of compliance with building regulations and fire legislation;
 - Comment on the suitability of proposed roof films to be applied internally and externally;
8. **Sheltered Housing Complexes** – Carry out a survey of complexes and provide a report including recommendations as to the most appropriate means of retro-fit an automatic fire suppression system.
9. **Care Homes (Scotland)** – Carry out a survey of a number of care homes and produce a full report including findings and recommendations regarding the up-grading of issues identified.

Fire Safety Training

1. Provide Fire Safety training to 20 Staff/ Volunteers of licensed entertainment venue, to enable employer to comply with the requirements of the Fire Safety (Scotland) Regulations 2006.
2. Provide staff training to a new hotel development for a large multi-national chain.
3. Provide Staff training to staff of a Grade "A" listed building used as a function venue with self-catering accommodation included.