



BUILDING AN INDOOR SHOOTING RANGE?

Keep these structural considerations in mind

Whether you're building an indoor shooting range from the ground up or repurposing an existing space, one of your foremost considerations should be the walls, floors, and ceilings that will ensure ballistic security and the overall safety of your customers, trainees and staff.

Here are some structural considerations to keep in mind when you're building an indoor shooting range:

WALLS



Your first choice for walls should be poured-in-place or tilt-up concrete panel walls for maximum noise attenuation and ballistic security.



Second choice would be concrete blocks filled with cement or grout.



Do not use gravel or sand as filling material for concrete blocks, since they can leak onto the range floor if the wall is cracked or breached.



If you will be using an existing structure with inadequate wall material, steel plating can be applied to the side walls downrange.

FLOORS



A hard, smooth floor is best since it makes for less erratic ricochets.



Non-adsorptive hardened concrete is the recommended flooring from the firing line to the bullet trap, since this area will get a lot of low angle impacts.



For the area behind the firing line, vinyl, rubber, or any non-slippery flooring material can be used for shooter comfort and safety.

CEILINGS



If possible, go for a smooth concrete surface – such as slab or precast – on the range side (underside) of the ceiling and route all your lights, plumbing, ducting, and range ventilation on the outside.



If a slab or precast ceiling is out of the question, use a truss ceiling with redirective guards and air-space baffles to protect ceiling fixtures.



InVeris Training Solutions can help you with the optimal placements for ceiling guards, along with the load weight computations to your range planner as part of our submittal drawing package.

GET A FREE INDOOR RANGE DESIGN GUIDE

If you found any of these tips useful, then consider downloading InVeris Training Solutions' [Indoor Range Design Guide](#) – it's a free, 32-page e-book that covers everything you need to know from planning and design considerations, to choosing your range type, equipment, safety considerations, noise standards, sample range layouts, and more.