PROJECT CASE STUDY / COMMERCIAL INTERIOR · STRUCTURAL GLASS

Tempered Glass Stair Railing Attorney's Office

San Diego County, California · Prime Contractor: Richard & Richard Construction Co., Inc.
Point-fixed tempered glass guardrail — designed, fabricated and installed by In-Line



The finished stair and mezzanine guard. Tempered glass, polished stainless point fittings, face-mounted plates and a shaped hardwood cap — **In-Line did the glass rail. All of it.**

PRIME CONTRACTOR
Richard & Richard Construction Co., Inc.

BUILDING
Working attorney's office

SYSTEM
Point-fixed tempered glass guardrail

FITTINGS
Polished stainless, drilled glass

CAP
Shaped hardwood over stainless

COMPLETED VALUE
$313,000

ACCESS
Outside business hours

THE PROJECT

A law firm's offices, over multiple levels, with an open stair and a mezzanine at the centre of the space. The architect specified what a firm specifies when it wants the room to feel larger and the stair to feel weightless: **tempered glass, held at points, with no frame at all.**

Richard & Richard Construction held the prime contract. **In-Line performed the glass railing — the whole system.** Stair guard, mezzanine guard, returns, the stainless that carries it and the hardwood cap that finishes it.

The completed project came to **$313,000** — one of the largest architectural glass railing packages In-Line has delivered, and the most demanding.

And during business hours, the building was a working law practice.

WHY IT WAS HARD

The drilling. That is the whole job.

Every panel in that photograph is held by holes drilled through the glass — and **tempered glass cannot be drilled.** Once it has been through the furnace, a drill does not make a hole in it; it turns the entire panel into a pile on the floor.

So every penetration has to be located, dimensioned and made **before the glass is tempered**. The hole schedule *is* the order. Position them wrong by a few millimetres and there is no adjustment, no reaming, no oversizing on site — there is a new panel, a lead time, and a finished lobby waiting for it.

That is why this was the difficult project. Not the weight, not the height, not the access. **The drilling — and everything that had to be true before it happened.**

The building is never as straight as the glass

Steel bends. Concrete is poured to a tolerance. Timber moves. Glass does none of it. Every millimetre the structure ran out of plumb or out of level had to be surveyed first and absorbed **in the stainless fittings**, because the panels themselves would absorb nothing.

Nothing is hidden

There is no base shoe, no channel, no cover plate and no trim. Every fitting, every gap, every fastener head and every reflection sits at eye level in a lit interior where clients walk past it all day. The tolerance you can hide is zero, because there is nothing to hide it behind.

And the office kept operating

Attorneys bill in six-minute increments. The stair is the middle of the office. So the work happened **outside business hours** — evenings and weekends, with the stair usable again before the first client arrived the next morning.

Finished carpet, stone, hardwood, wall coverings and framed art were already installed and already in the path. Glass panels are heavy, fragile and awkward, and they were moved through that finished interior by hand — no crane, no forklift, no room to swing. Dust and noise were controlled not as a courtesy but as the condition of being let back in the following evening.

Anyone can hang glass in an empty building. Doing it in a working law office, without a mark on anything and without a client ever noticing, is a different trade entirely.

WHAT IN-LINE DELIVERED

- **The complete point-fixed tempered glass guardrail system** — stair, landings, mezzanine and returns.
- **Full hole schedule and shop drawings**, every penetration located and dimensioned before a panel was made.
- **Polished stainless point fittings and face-mounted plates**, fabricated to suit the building rather than a catalogue.
- **Shaped hardwood cap rail** and continuous graspable handrail, married to a system with no frame.
- **Field survey of the built structure**, with out-of-plumb and out-of-level designed into the metal.
- **Installation outside business hours**, with the stair returned to service each morning.
- **Protection of every finished surface** in the path of the work.

SCOPE AT A GLANCE

- Tempered glass guardrail
- Point-fixed system
- Drilled glass
- Stainless point fittings
- Face-mounted plates
- Hardwood cap rail
- Continuous handrail
- Occupied building
- After-hours installation

0
Holes drilled after tempering

0
Field adjustments available

0
Business days lost by the firm

$313,000
Completed project value

Guard glazing is a life-safety element governed by the California Building Code — safety glazing type, the loads the assembly must resist, and the requirement that no single component failure brings the guard down. How In-Line works in glass →

THE RESULT

The stair reads exactly as the architect drew it — glass, stainless and wood, and nothing else. The practice never closed. And the firm's clients walk past a guardrail they will never once think about, which on this kind of work is the entire objective.

Glass is the one material where there is no second attempt. We only needed the first one.

WHY ARCHITECTS AND BUILDERS CALL IN-LINE FOR GLASS

Structural glass gets specified when a space is meant to feel expensive. It only feels expensive if it is perfect — and perfect is decided weeks before anyone sees a panel.

- **We detail before we order.** Hole schedule, edge dimensions, fitting positions and isolation details all resolved while the glass is still a drawing.
- **We measure the building that exists**, not the one on the plan.
- **We fabricate the metal ourselves.** Stainless posts, plates and brackets from our own shop, so the fittings suit the glass and the structure.
- **We install in occupied buildings.** Law offices, campuses, hospitals, airports and military bases — where the work has to fit around people who cannot stop.
- **We work in every material.** Hot-dip galvanized steel, architectural stainless, aluminium, ornamental tube steel, cable and glass — so we recommend the right one and say so when it is not glass.
- **We are certified, bonded, signatory, and safe.** DBE · SBE · SLBE · SB · HUBZone · SBA 8(a). Union affiliated, Local 89 & Local 12. CSLB C-13, C-51, C-32. Bonded through Old Republic Surety, rated A+ XV. **EMR 0.68.**

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