Calling Dr House to cure your building's ailments

TV's *House* dramatises how doctors diagnosing an illness can be endlessly frustrated by misleading symptoms, requiring thorough examination, state-of-the-art tests, brainstorming, persistence and boundless knowledge.

When you look for help in fixing deterioration in a building, you too must seek out a "doctor" who gets the diagnosis right. In either case, **disaster awaits the choice of a diagnostician who leaps to the obvious (but often wrong) cause or lacks the know-how to do it thoroughly.**

Sad case

A case in point is an apartment building in distress only ten years after having been repaired.

A more thorough inspection by new-age "doctors" revealed two disturbing facts:

- There had been a failure to determine the extent of the areas needing repair
- **This was compounded by an incomplete understanding of the mechanisms of concrete deterioration.**

Hardly surprising, the repair became much more expensive due to the need to replace a lot more concrete and the need for support during the repair to ensure structural stability and safety.

Costly déjà vu

All a serious consequence of not "doing it right first time, every time", which is the ACRA consultants' and contractors' mantra.

Thorough diagnosis resulted in a repair strategy designed, this time around, to "do it right". Since the cover was chloride-contaminated, resulting in a general rebar corrosion problem, the savvy new "doctors" swiftly homed in on the best and most economical "cure": **namely chloride extraction**.

By extracting all chloride ions to below 0.05% of the cement weight in the concrete. this electrochemical treatment provides repair to a structure as a whole.


BUILDING ILL? CALL DR HOUSE!

At the same time, the alkalinity of the concrete surrounding the reinforcement is raised due to electrolysis at the rebar surface (or cathode), **thereby avoiding the risk of leaving corroding areas undetected and unrepaired.**

But pitfalls abound. Because chloride extraction is an electrochemical method, electrical continuity of the rebar is vital. A less-than-thorough inspection would have missed the failure of electrical continuity in this building due to poor placement and tying of the rebars.

Again, know-how in the formulation of the repair strategy foresaw the need for a remedy to this pitfall, so effecting a lasting "cure".

Raise the House

The moral? Consult the *House* team of the concrete repair world: **ACRA consultants, contractors and materials suppliers.**

Hoops for cancer

International Australian basketball star, **Laura Jackson** (daughter of an ACRA member), **was among donors backing ACRA's revived Concrete Cancer Cup, staged to raise money for CanTeen,** the charity dedicated to using peer support for kids living with cancer.

Her autographed basketball top and letter of authenticity were sold though eBay, which spawned **emails praising ACRA's charity initiative, some from Laura Jackson fans in the US.** ■