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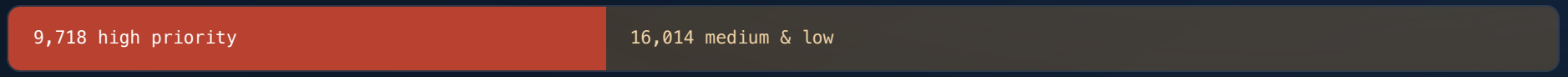
HANDOVER AUDIT FINDINGS

Nearly half of fire-safety checks failed at handover

Since 2017, Nemmadi has audited more than fifty new residential developments at the moment they passed from builder to residents' association. This analysis covers 43 of them whose audit records include the fire-fighting systems — sprinklers, hydrants and hose reels, alarms and detectors, extinguishers, pumps, and the signs that guide people out. Across those 43, independent engineers ran 52,801 fire-safety checks — and 25,732 of them failed.

THE 25,732 FAILURES, BY THE SEVERITY THE ENGINEER ASSIGNED



We mark anything high priority only when there is a direct threat to life, a contravention of local statutes and/or IS Codes. Checks marked "not applicable" are excluded from both sides of the ratio.

HANDOVERS AUDITED
50+
since 2017 — this analysis covers 43 with fire-fighting checks

FIRE-SAFETY CHECKS RUN
52,801
individual pass/fail checks on the fire-fighting systems

CHECKS FAILED
25,732
48.7% of fire-safety checks — 8% on specific questions, 71% on general checks

RATED HIGH PRIORITY
9,718
as rated by the engineer on site — see the caveat on page 4

THE EIGHT PATTERNS — THE SAME COLOURS ON EVERY PAGE

Extinguishers 2,676	Hose reels & hydrants 2,858	Sprinklers 2,375	Detection & alarm 3,759
Cabinets & shafts, no key 1,845	Fire doors & stairwells 532	Fire order boards & signs 3,293	Pipework & corrosion 5,157

WHAT WAS FOUND

Eight patterns inside 25,732 failures

Grouped from the inspecting engineers' own written observations. The count in each card is findings, then how many the engineer rated high priority, then how many of the 43 projects the pattern appeared in.

Fire extinguishers

2,676 · 1,444 high · 39 proj

The most widespread pattern — found in 39 of the 43 projects. 797 findings record an extinguisher not provided, and 958 no inspection record on it (many of the notes cite IS 2190).

Hose reels and hydrants

2,858 · 1,548 high · 31 proj

1,259 findings, in 24 projects, record a nozzle, hose or branch pipe missing from a hose reel or hydrant point.

Sprinklers

2,375 · 1,529 high · 32 proj

561 findings, in 28 projects, record protective caps still on sprinkler heads. 153 more record a sprinkler valve found shut or only partly open.

Fire detection and alarm

3,759 · 1,595 high · 31 proj

Smoke detectors, manual call points, sprinkler flow sensors and the alarm panel. 766 findings, in 16 projects, record no tool at a manual call point to break its glass.

Cabinets and shaft doors: no key or means of opening

1,845 · 652 high · 28 proj

1,220 findings, in 22 projects, record no key — or no means of opening — for a hose cabinet or a fire-shaft door.

Fire doors, stairwells and exits

532 · 389 high · 23 proj

Fire-rated doors, fire-exit staircases and exit routes — the highest share rated high of any pattern, 73%. One project accounts for 53% of these findings.

Fire order boards and exit signs

3,293 · 1,179 high · 34 proj

2,075 findings record no fire order board on display, and 850 missing exit signage. Some of the engineers' notes cite the National Building Code (NBC 2016).

Pipework, supports and corrosion

5,157 · 281 high · 37 proj

The largest pattern by count and the least severe: 5% rated high. Pipe supports, rust and corrosion, painting, and protection of the cables on the fire lines.

THE REMAINDER

These eight patterns account for 22,495 of the 25,732 failures. The other 3,237 are individually recorded items — missing identification labels, system pressure not held, fire telephone points and first-aid kits among them. Of all 25,732 failures, 9,718 were rated high priority and 16,014 medium or low.

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11 things a resident would assume are already in place

Each row is a specific defect the engineers wrote down, counted with a fixed rule over their own words. The label shows how many of the 43 projects it was found in at least once, then how many findings in all; rows are ranked by the share of projects affected. The two treatment-plant rows are checklist questions, asked in 19 projects.

1	A fire extinguisher wherever one is required	**33**/43 proj · 797
2	Sprinkler heads with their protective caps removed	**28**/43 proj · 561
3	Fire-fighting equipment inside the water-treatment plant	**12**/19 asked · 15
4	A fire order board on display	**27**/43 proj · 2,075
5	Fire-fighting equipment inside the sewage-treatment plant	**11**/19 asked · 11
6	A complete hose reel or hydrant kit — hose, branch pipe and nozzle	**24**/43 proj · 1,259
7	Exit signs showing the way out	**23**/43 proj · 850
8	A key, or a means of opening, for every hose cabinet and fire-shaft door	**22**/43 proj · 1,220
9	An inspection record on every extinguisher	**18**/43 proj · 958
10	A tool at every manual call point to break the glass	**16**/43 proj · 766
11	Sprinkler valves left fully open	**11**/43 proj · 153

A finding is one location where the defect was recorded — one floor's hose cabinet, one extinguisher point. A defect is listed only if it was found in more than one project and no single project holds more than half of its findings, so no row is carried by one building.

The method, and its limits

A handover audit is commissioned by the residents' association of a new apartment complex at the moment the builder hands the common property over to them. Nemmadi's engineers inspect the building against a fixed checklist and record a verdict – passed, failed, or not applicable – for every point, with a written observation and a severity rating on each failure.

Nemmadi has conducted more than fifty of these handover audits since 2017. This report analyses the 43 whose audit records include fire-fighting checks: the floor-by-floor fire-fighting quality checks in each tower and basement, the fire pump room, the fire alarm and public-address system, and the fire-fighting provision at the generator, the transformer yard and the water and sewage plants. It is not every such audit: some are filed in ways our records do not yet identify.

Some things are deliberately excluded. Lift fire intercoms, fireman's switches and lift-shaft smoke vents are lift equipment, not part of the fire-fighting system; the general checklist run inside pump rooms and hose-cabinet rooms (walls, doors, ceilings) is civil finishes, so only those rooms' electrical and plumbing checks are kept. A check on whether light fittings clash with fire pipelines is also left out: it says nothing about whether the fire system works.

Every figure here is a count of records, not an estimate. Patterns and defects are counted with fixed rules over the engineers' written observations. Each failure sits in one pattern only; the defect rows on page 3 can overlap, because one note may record two defects. No project identity appears anywhere.

NO ONE IS NAMED

No building, builder or residents' association is identified. These audits were commissioned by the residents' associations themselves.

THESE DEFECTS WERE FOUND SO THEY WOULD BE FIXED

A handover audit gives the association a list to hand back to the builder before it accepts the building. Only 52 of the 25,732 failures carry a re-inspection result, so nothing here is the current condition of any building.

NOT A RANDOM SAMPLE — AND NOT EVENLY WEIGHTED

Every project here commissioned an independent audit, which may make it better managed than average, not worse. The largest single project holds 13% of all failures and 24% of the high-priority ones; 42 of the 43 recorded at least one failure, 37 at least one rated high.

THE 48.7% BLENDS TWO KINDS OF CHECK

Where the checklist puts a specific question, 1,550 of 18,733 failed, or 8%. Where the item is a general check and the engineer writes the defect in free text, 24,182 of 34,068 failed, or 71%. The overall rate sits between them.

SEVERITY IS THE ENGINEER'S CALL ON SITE

The same written observation is not always rated the same way: 268 observations, worded identically, were rated high in some places and medium in others (7,350 findings) – in 236 of them within a single project. The note "Fire order board not provided, needs to be provided." was rated high 333 times and medium 515 times.