

FOUNDATION FAILURE

The Soft Soil Scaffolding Trap

TIMESTAMP: 2823-18-26 08:45:09 UTC



LFI #001

LEARNING FROM INCIDENT

Safety Moment: Analysis of a Structural Collapse



SAFETY STUDY NOTES

MONDAY MORNING. 8 METERS HIGH. TAGGED 'SAFE'.



10:30 AM: THE COLLAPSE



ACTION: [09:45 AM]

Three workers climb the platform and load wet cement buckets.

REACTION: [10:00 AM]

The structure shifts suddenly under the added load.

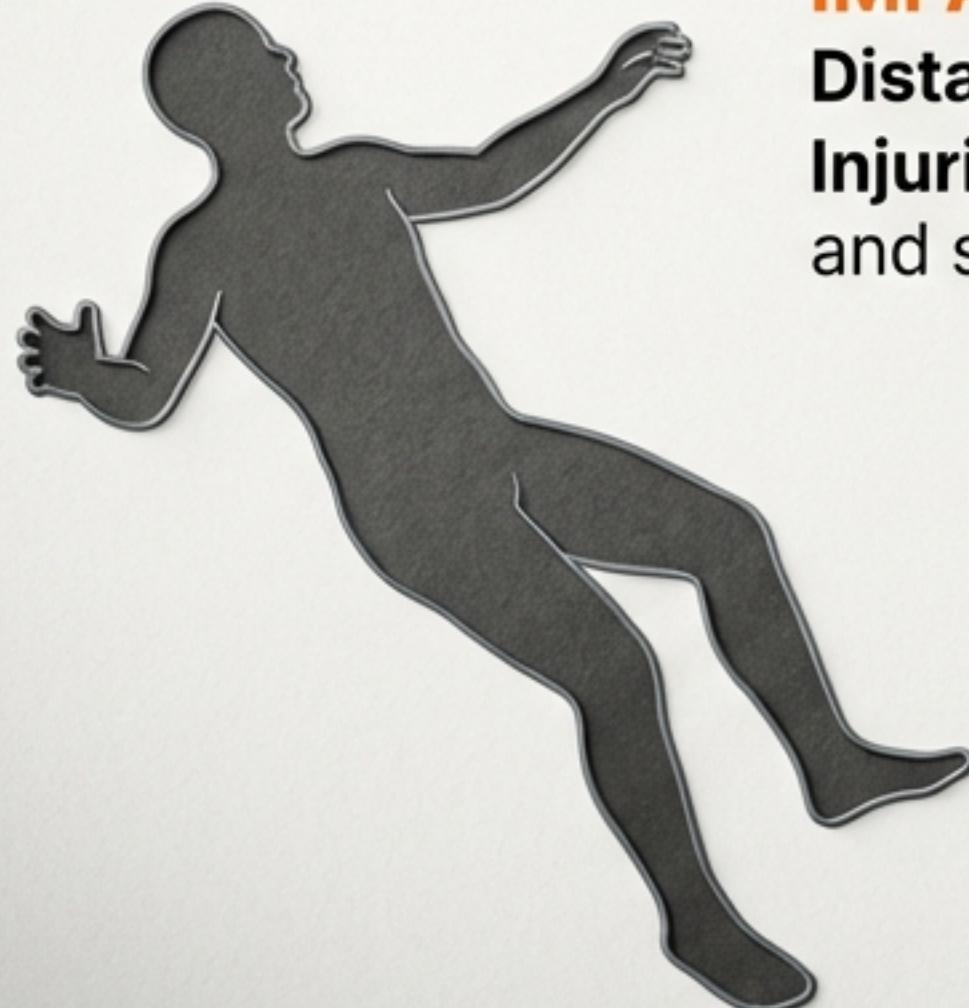
FAILURE: [10:30 AM]

Outer legs sink into softened soil. The scaffold tilts and collapses.



THE HUMAN CONSEQUENCE

8 Meters



IMPACT: 2 Workers
Distance: 8 Meter Fall
Injuries: Multiple fractures and spinal injury.

SUSPENSION: 1 Worker
Duration: 20 Minutes
Outcome: Left hanging on a window grill until rescue.



NOT AN ACCIDENT. A CALCULATION FAILURE.

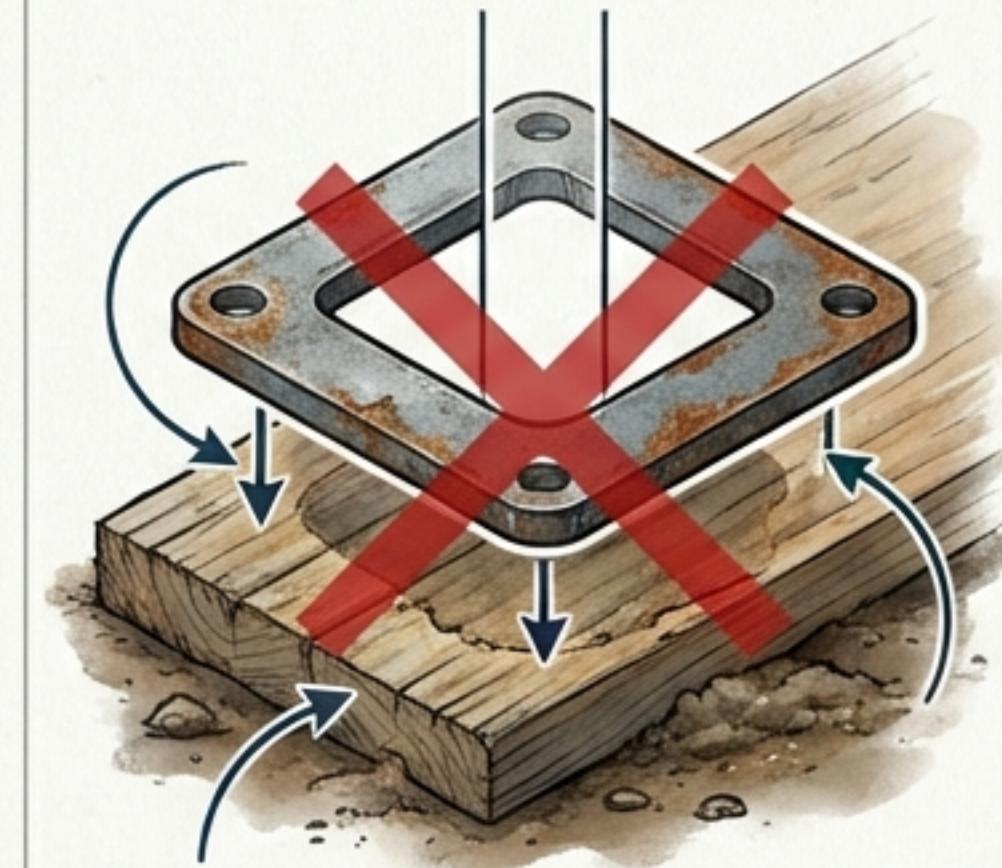
The investigation revealed three distinct failures that converged to create the trap.

1. THE ENVIRONMENT



The Rain Factor

2. THE HARDWARE



Missing Sole Plates

3. THE PROCESS

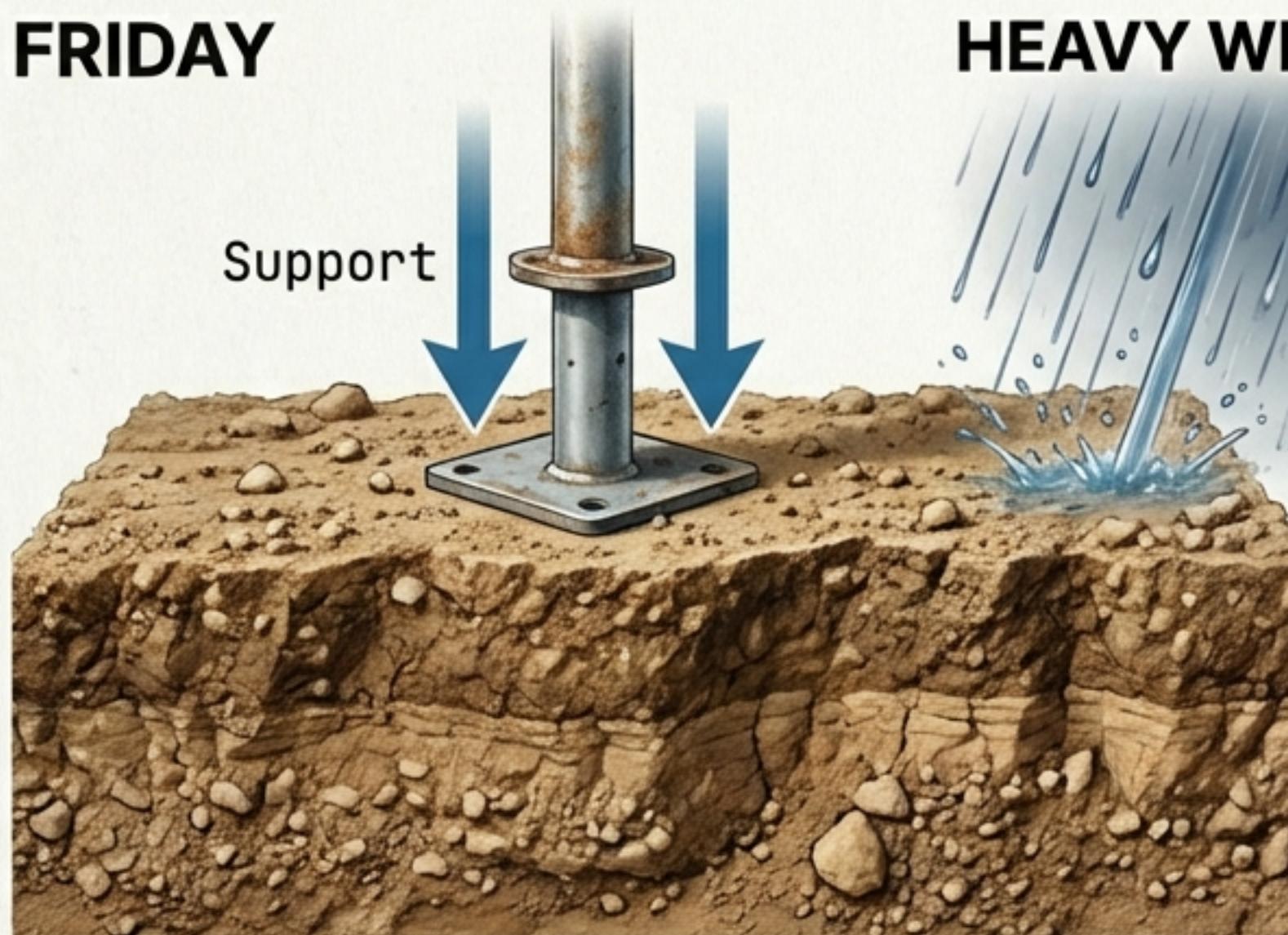


The False Green Tag



FACTOR 1: THE WEEKEND RAIN

FRIDAY



HEAVY WEEKEND RAIN



MONDAY

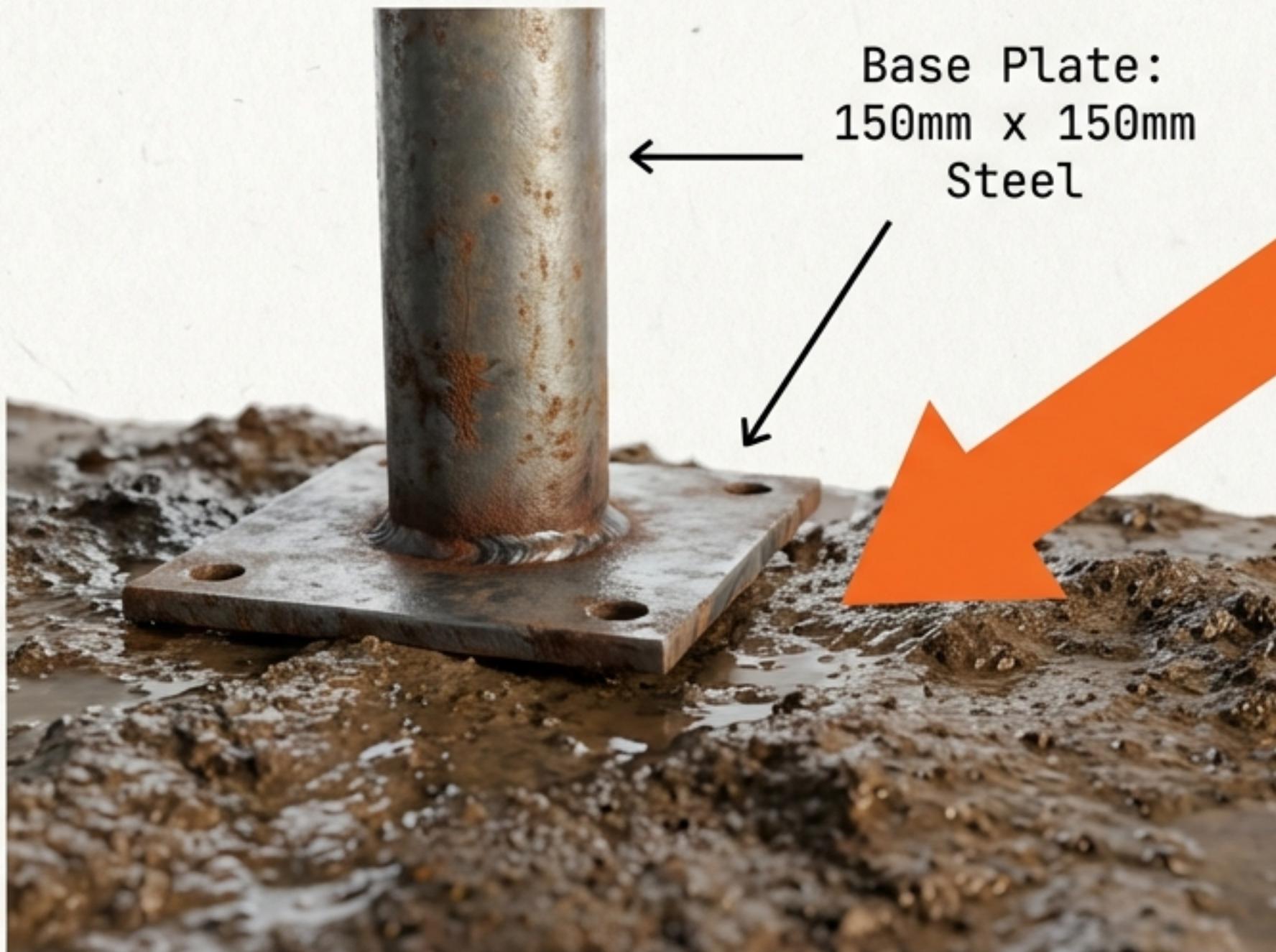
EVENT: Heavy rain occurred over the weekend while the site was inactive.

IMPACT: The soil around the building perimeter transformed from solid ground into soft mud.

RESULT: The ground lost its load-bearing capacity. The 'floor' that existed on Friday was gone by Mon



FACTOR 2: THE MISSING COMPONENT



MISSING: WOODEN SOLE PLATE

THE SETUP: Scaffold standards rested on standard steel Base Plates.

THE ERROR: There were NO “Sole Plates” (wooden planks) used to distribute the load.

CONDITION: Steel was placed directly in contact with the soil.



PHYSICS: THE KNIFE VS. THE SNOWSHOE

Pressure = Force / Area



BASE PLATE ALONE (150mm)

(150mm x 1mm blade edge)

Concentrates force. Slices through soft material.



WITH SOLE PLATE (300mm+)

(300mm x 800mm snowshoe footprint)

Distributes force. Floats on soft material.

Without the wood to distribute the load, the steel plate had zero resistance against the softened n



FACTOR 3: THE GREEN TAG TRAP



THE ASSUMPTION:

Supervisor trusted Friday's tag on Monday's mud.

THE REALITY:

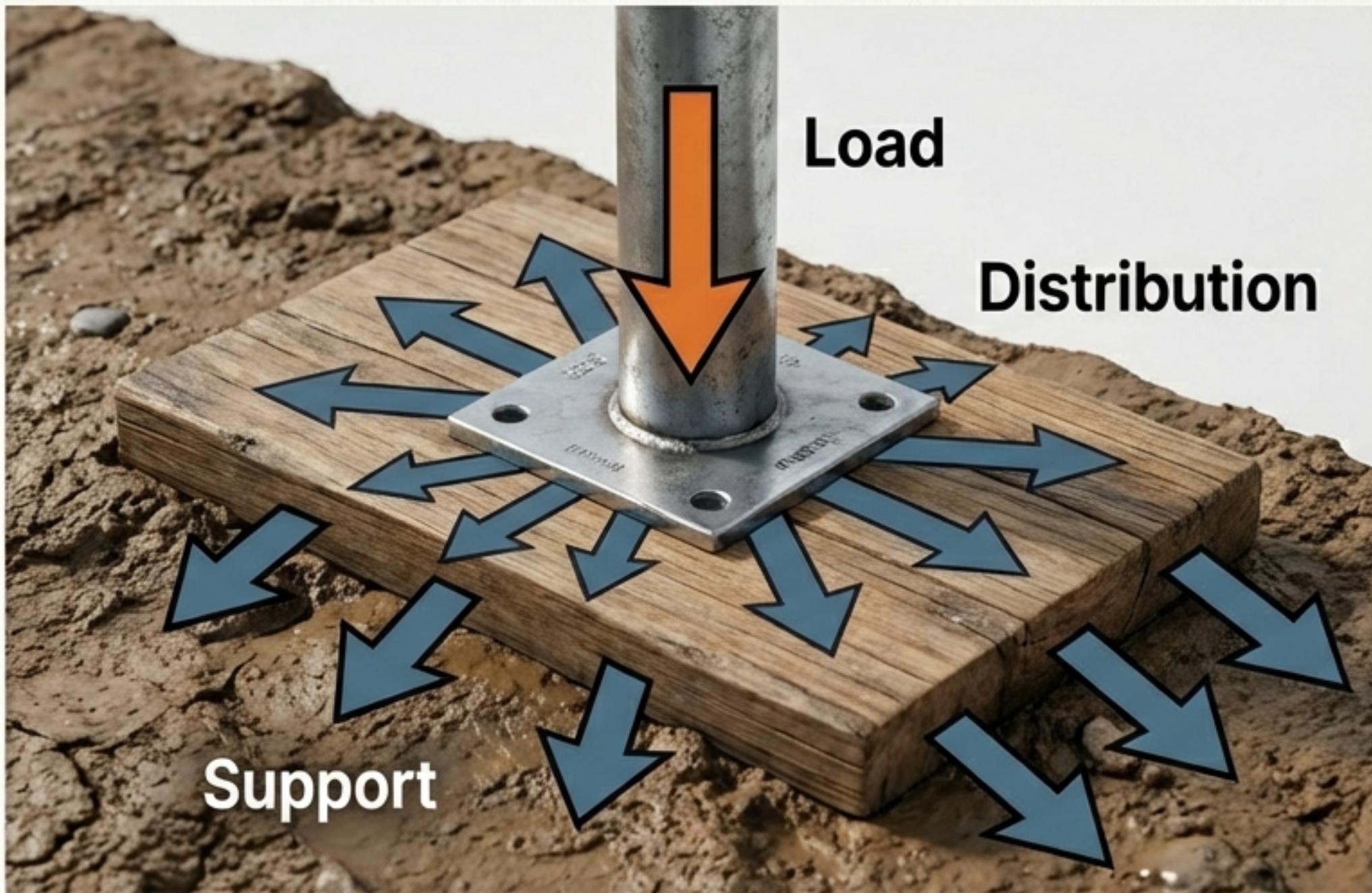
A tag is a snapshot in time, not a guarantee.

THE VIOLATION:

IS 3696 mandates re-inspection after bad weather. No one checked the base conditions before work began.



THE NEW STANDARD: SOLE PLATES ARE MANDATORY



THE RULE:

On any surface other than concrete, a wooden Sole Plate is required.

SPECIFICATION:

Minimum width of 300mm.



PROCESS: THE 'AFTER-RAIN' RULE

TRIGGER: RAIN OR HIGH WIND

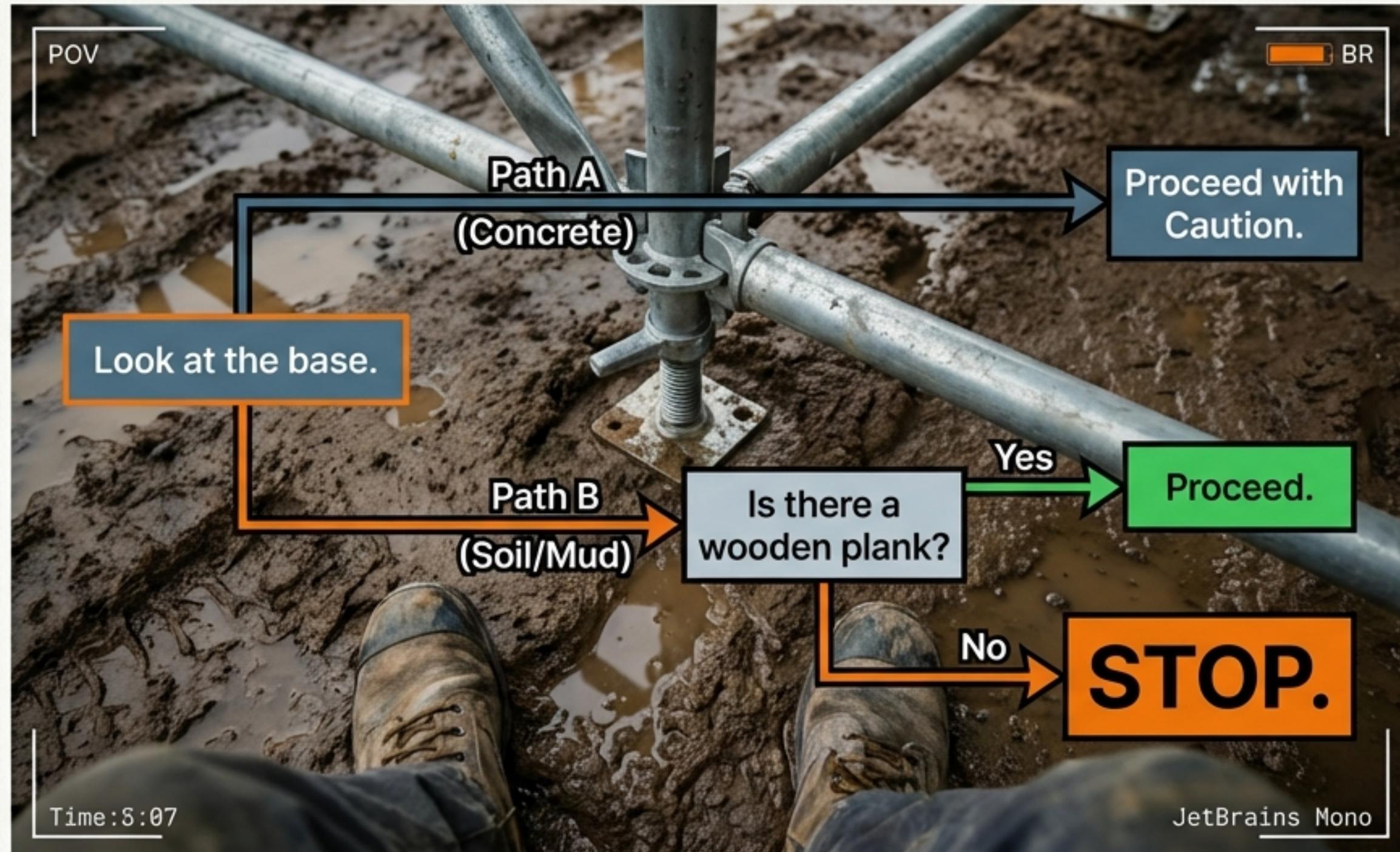
STATUS: ALL GREEN TAGS INVALID

- 1. SUSPEND WORK** immediately.
- 2. RE-INSPECT** stability, specifically ground conditions.
- 3. RE-TAG** only after verification.

Never overload a wet scaffold; ground resistance is lower than usual.



WORKER PROTOCOL: LOOK DOWN FIRST



MUD CHECK

If the ground is wet or muddy, do not climb. Report to supervisor immediately.

Don't trust old tags.



SUMMARY



CHALLENGE: LOOK BEHIND YOU



**Look at the scaffold on our site
right now. Is it resting on a
wooden plank or bare soil?**

LET'S GO CHECK.



SAFETY IS A CONSTANT CALCULATION.

Get more Safety Moments and LFI summaries at:
<https://safety-study-notes.netlify.app>

