# **Lean pre-coding sheet — 86/89**

**Component:** crates/vm\_app/ui/vite.config.ts (UI build config)

## **1) Goal & success**

**Goal:** Produce a **fully offline**, reproducible static bundle for the desktop app (Tauri). No external/CDN assets; output paths work from a packaged file URL.

**Success:** npm run build emits deterministic files referenced **relatively** (e.g., ./assets/...), consumed by Tauri with **no network** at runtime.

## **2) Scope**

**In:** Vite base path, outDir, asset handling, Rollup output naming, dev server hardening (dev only), and explicit prohibition of remote assets.

**Out:** App security policy (lives in tauri.conf.json) and backend commands (main.rs).

## **3) Inputs → outputs**

**Inputs:** index.html, src/main.ts, local styles/fonts, local MapLibre assets under ui/public/map/.

**Outputs:** Static bundle in dist/ with content-hash filenames and **relative** URLs so Tauri can load from package.

## **4) Entities/Tables (minimal)**

## **5) Variables (only ones used here)**

## **6) Functions (signatures only)**

N/A (configuration file).

## **7) Algorithm outline (what the config enforces)**

Set base='./' and outDir='dist'.

Disable inlining & sourcemaps; use explicit Rollup name templates (assets/[name]-[hash][extname], etc.).

For dev, **no proxies/CDNs**; prefer local-only dev to mirror offline runtime.

Ensure map/style/font paths are **relative** into public/ so they’re bundled locally.

## **8) State flow (very short)**

vite build → dist/ → Tauri packages dist/ with tauri.conf.json → app loads all assets locally; backend writes canonical artifacts.

## **9) Determinism & numeric rules**

Build must be reproducible; no environment-dependent URLs or timestamps; runtime remains offline. Reporting precision rules live in Doc 7 (UI just displays).

## **10) Edge cases & failure policy**

Any absolute http(s):// import or CSS @import url(...) → **fail build** and replace with local copy.

Sourcemaps with absolute file paths can break reproducibility; keep disabled for releases.

## **11) Test checklist (must pass)**

npm run build works **offline**; dist/ contains only relative references; Tauri runs with **no HTTP/DNS**.