

# Scratch■Pad HQ: Architecture & Runbook

## Campus Topology

Control Tower plus eight stations, mirrored chiral/anti, connected by Escher (edge) and Jacob (helix) ladders. Floors from I/O Mast (roof) to Validation Court, Alena Hall, CRT Switchboard, Exchange Floor, down to cold store and quarantine.

## Stations & APIs

1 Lens/Codec → 2 CRT Switchboard → 3 Construction■A Lift → 4 Helix Cartography → 5 Tuple Bundler → 6 Alena → 7 Spectral & Haptic → 8 Ledger.

Each: Inputs → Ops → Outputs → Witnesses → Falsifiers → Knobs.

## Corridor Twin Governance

Six arms (mod 2,3,5,7,11,13). OPEN iff all pass and capacity tokens available. Dual■witness rule mandatory. Time■13 rate arm prevents oscillation.

## Run Loop

Pre■pose K■scanner → Parity set check → Gate (CRT+arms) → Commit & Snap (Alena  $\lambda \approx 0.655$ ) → Seven■witness verify → Ledger append → Residues■only replay. Reds are requests for lift, not silent fails.