Terra EOS
Design Directives & Implementation Guidance

Supplementary guidance provided during development, to be read alongside the core PRD.

1. Visual Design: Earth-Tone Palette

Rationale

Grid overlays should feel like they "emerged from the land" — not like a heatmap or traffic light system. The palette must remain readable on satellite imagery without overwhelming the landscape itself.

Palette Specification

Score	Color	Hex	Use Case
80–100	Rich forest	#2E5A27	Remnant vegetation
65–79	Deep olive	#556B2F	Strategic value
50–64	Sage green	#6B8E23	High uplift
35–49	Warm amber	#B8860B	Corridor support
20–34	Sandy brown	#C2A478	Lower priority
0–19	Light tan	#D2B48C	Baseline

Overlay Rules

- Fill opacity: 28–45% (semi-transparent)
- Stroke: 1.5px border at 60-80% opacity
- Stroke color: Same hue as fill, higher opacity

2. Map Implementation: Phased Approach

Phase 1: Stabilise (Current)

- Render grid polygons as static overlays
- No tap interactions yet
- Focus on centering, performance, legibility

Phase 2: Interaction

- Add onPress handlers to polygons
- Open trust-first grid detail modal

Phase 3: Property Claiming

- Connect to property claiming flow
- Multi-select for landholders

3. Performance Optimisation

- Memoize polygons with React.memo and useMemo
- Conditional rendering after onMapReady
- Cache data in Zustand store
- Load once on mount, paginate for scale

4. Platform Strategy

Native (iOS/Android)

- Primary experience: Full satellite map
- react-native-maps with hybrid mapType

Web

- Deliberate fallback, not broken state
- Show branding, stats, "use mobile" message

5. Iteration Philosophy

"Stabilise, then Enhance"

1. Get basic version working
2. Test on actual device
3. Add enhancements in next iteration
4. Don't bundle complexity into first pass

6. UI/UX Principles

Emotional Hierarchy: Ownership → Pride → Calm → Curiosity

Trust-First Rules:

1. Landscape is the hero — minimal UI overlays
2. Progressive disclosure — reveal complexity on demand

3. Familiar patterns — feel like Google Maps

4. Calming aesthetic — no alarm colors

5. Friendly language — "What you can do"

Document created: February 2026. To be updated as directives emerge.