GRES PROTOCOL

Global Real Estate Standard

LIGHTPAPER

The First Perpetual Real Estate Fund
Powered by AI-Driven Valuation & Blockchain Infrastructure

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gres.network

1. THE OPPORTUNITY

The global real estate market, valued at over $300 trillion, remains one of the most illiquid and fragmented asset classes in the world. While institutional investors and developers routinely achieve Internal Rates of Return (IRR) of up to 80% on development projects, the vast majority of global capital is locked out due to high minimum tickets, geographic silos, and opaque valuation processes.

Previous attempts at real estate tokenization largely failed by creating isolated digital representations of single buildings without secondary market depth or clear exit strategies — creating what the industry calls "RWA Cemeteries."

The GRES Protocol initiates a structural shift toward a perpetual, diversified global real estate fund governed by big data and artificial intelligence, secured by physical deeds, and accessible to global investors through blockchain infrastructure.

2. WHAT IS THE GRES PROTOCOL?

GRES (Global Real Estate Standard) is an end-to-end infrastructure for tokenizing, managing, and trading real estate assets on a global scale. It is not a marketplace or a listing platform — it is a protocol-level standard that defines how real estate enters the digital economy with full legal, financial, and technological integrity.

The Four Integrated Layers

- **Governance Layer:** A dual-entity governance model (the "Rolex Model") that separates legal asset ownership from technological operations, ensuring perpetual stability.
- **Token Layer:** A dual token system ($GRES and GRES.ALPHA) with distinct economic functions and lifecycle stages.
- **Intelligence Layer:** An AI Oracle that replaces infrequent manual appraisals with real-time, data-driven Net Asset Value (NAV) calculations.
- **Compliance Layer:** Permissioned token standards with on-chain identity, dynamic regulatory hooks, and cross-jurisdictional enforcement.

3. THE ROLEX GOVERNANCE MODEL

Inspired by the Hans Wilsdorf Foundation's ownership of Rolex, the protocol adopts a fundamental separation between legal asset ownership and technological management.

This protects the integrity of underlying assets from the volatility of the technology sector.

GRES Foundation

A non-profit entity holding 100% of physical titles and deeds. Structured as a trust, it ensures all issued $GRES tokens remain 100% backed by tangible assets. Assets are legally ring-fenced from the liabilities of the Operator.

GRES Operator

A for-profit entity responsible for technological infrastructure, global distribution, and day-to-day management. The Operator innovates and scales while the Foundation maintains a stable, conservative legal anchor.

Trustless Minting

Minting authority is governed by the Value-Accretion Protocol, requiring verifiable "Proof of Value" before any $GRES tokens can be created — either a cryptographically attested deed or validated NAV appreciation. This ensures the token supply is always capped by the fund's audited NAV.

4. THE AI ORACLE

The AI Oracle is the technical cornerstone of the protocol, replacing inefficient traditional appraisals with real-time, data-driven market corrections across 20+ global markets.

Multi-Agent Architecture

- **Market Analyzer:** Monitors macroeconomic trends, neighborhood sentiment, and regional market health to calculate Location Scores.
- **Property Evaluator:** Leverages Computer Vision to analyze property images and floor plans, identifying over- or undervaluation against comparable properties.
- **Financial Calculator:** Performs real-time Cap Rate, Cash-on-Cash, and ROI calculations as market conditions shift.
- **Decision Engine:** Synthesizes all agent outputs into a unified investment grade (A+ to D) with confidence scoring.

Data Integrity

The Oracle employs multimodal integration, outlier management via statistical guardrails, and Explainable AI (XAI) audit trails for every valuation change — ensuring institutional trust and regulatory transparency.

5. DUAL TOKEN ARCHITECTURE

The ecosystem is powered by two distinct tokens, each serving a specific function within the protocol's lifecycle.

$GRES — The Asset-Backed Token

A liquid representation of the fund's Net Asset Value. Price is set by the AI Oracle's real-time NAV calculation. The protocol facilitates arbitrage between primary and secondary markets, providing both a price peg and a price floor. Yields from rents and development are reinvested to grow NAV per token without dilution.

GRES.ALPHA — The Utility Token

A high-performance utility instrument engineered to fund the protocol's development. Early holders secure buyback yield potential and significant fee reductions within the ecosystem. A mathematically enforced Buyback & Burn mechanism creates deflationary dynamics over time. Full details are available in the GRES.ALPHA Token Paper.

6. REGULATORY ALIGNMENT

The protocol is designed for full compliance with European and global regulatory frameworks:

- **MiCA Compliance:** Full alignment with MiCA (Markets in Crypto-Assets) regulation for token issuance and service provision.
- **Jurisdictional Study:** Evaluation of Switzerland (DLT Act), Luxembourg (RAIF/SCSp), and Liechtenstein (Token Container Model) for Foundation jurisdiction.
- **On-Chain Compliance:** Permissioned token standards (ERC-3643 / L3RS-1) with on-chain KYC/AML identity, dynamic compliance rules, and clawback functionality.
- **Dual-Layer Titles:** In jurisdictions without DLT recognition, the Foundation holds 100% of physical deeds as a trust, providing a legal fallback.

7. WHO IS IT FOR?

- **Investors:** Seek a store of value with high liquidity, real-time NAV dashboards, and collateralization capacity.
- **Builders:** Real estate developers and operators use the protocol to raise capital more efficiently than traditional banking, with automated due diligence and milestone-based capital release.

- **Agents:** Regional market experts provide ground-truth validation, source off-market opportunities, and verify physical property conditions.

8. STRATEGIC ROADMAP

The protocol follows a phased development approach tied to GRES.ALPHA fundraising lots:

Phase	Name	Key Objectives
01 — Genesis	Foundation & Community	Branding, legal architecture, platform backlog, AI Oracle design, community launch
02 — Blueprint	Protocol & First Assets	Builder portal, ADD protocol, KYC/AML integration, first LOIs with EU developers
03 — Vault	Security & Institutional	Tier-1 audits, MiCA licensing, investor dashboard, institutional roadshow
04 — Ignition	Mainnet & Flywheel	Mainnet launch, $GRES primary issuance, Proof of Deed, AI Oracle live
∞ — Perpetual	The Fund That Never Stops	$1B AUM target, 20+ markets, GRES Exchange, AI-automated operations

9. THE VISION

The GRES Protocol aims to become the Global Real Estate Standard — the definitive infrastructure through which real estate enters the digital capital markets. With a clear path from concept to $1 billion in AUM, the protocol is not merely tokenizing buildings; it is engineering the future of real estate ownership.

For the complete technical architecture, financial projections, and governance framework, refer to the full GRES Protocol Whitepaper at gres.network.

token is a utility instrument and does not represent equity, debt, or ownership. You are strictly obligated to consult with your legal and financial advisors before making any decision related to this project.