

GRES PROTOCOL · GLOBAL REAL ESTATE STANDARD

Whitepaper

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Institutional Architecture for Real Estate Tokenization and AI-Augmented Asset Management.

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Contents

Table of Contents

01	Executive Summary	02
02	The Problem: Why Real Estate Needs a New Standard	03
03	The GRES Protocol: A Structural Solution	05
04	Governance Architecture: Swiss-style Foundation	06
05	Dual Token Architecture	08
06	The AI Oracle: Real-Time Valuation Engine	12
07	Platform Architecture & User Journeys	14
08	Automated Due Diligence (ADD) Protocol	17
09	Regulatory Framework & Compliance	19
10	Revenue Model & Financial Projections	22
11	Development Roadmap	24
12	Security & Risk Mitigation	26
13	Conclusion	28

Executive Summary

*The global real estate market, valued at over **\$400 trillion**, remains one of the most illiquid and fragmented asset classes in the world.*

While institutional investors and real estate developers routinely achieve Internal Rates of Return (IRR) of up to 80% on development projects, the vast majority of global capital is locked out of these opportunities due to high minimum tickets, geographic silos, and opaque valuation processes.

Previous attempts at real estate tokenization — referred to here as *Tokenization 1.0* — largely failed by creating isolated digital representations of single buildings without secondary market depth or clear exit strategies, resulting in what the industry has come to call “*RWA Cemeteries*.”

The **GRES Protocol** (Global Real Estate Standard) 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. The protocol bridges the gap between high-yield development opportunities and global liquidity by combining:

- A **dual-entity governance model** (Swiss-style Foundation governance) that separates legal asset ownership from technological operations, ensuring perpetual stability.
- A **dual token architecture** (\$GRES for asset-backed value and GRES.ALPHA for early-stage utility and ecosystem incentives) that aligns short-term fundraising with long-term value creation.
- An **AI Oracle** that replaces infrequent manual appraisals with real-time, AI-augmented Net Asset Value (NAV) calculations.
- An **Automated Due Diligence (ADD) Protocol** that scales the vetting of real estate projects without sacrificing institutional rigor.
- Full regulatory alignment with **MiCA** (Europe), **Swiss DLT Act**, and global AML/KYC standards through permissioned token standards (ERC-3643 / L3RS-1).

This whitepaper details the full institutional, technological, and economic architecture of the GRES Protocol. It is designed to serve as the definitive reference document for investors, builders, regulators, and partners evaluating participation in the ecosystem.

Why Real Estate Needs a New Standard

2.1 The Illiquidity Paradox

Real estate is the largest asset class on earth, yet it operates with the efficiency of a pre-digital era. Traditional investors capture net yields between 3% and 9%, while developers who take on construction and entitlement risk can achieve IRRs of up to 80% upon project completion. This “*Development Alpha*” — the spread between passive ownership returns and active development gains — is historically inaccessible to the retail public.

The barriers are structural: high investment tickets, geographic restrictions, complex legal frameworks, and an absence of liquid secondary markets. Even when an investor gains exposure, exiting that position can take months or years.

2.2 The Failure of Tokenization 1.0

The first wave of real estate tokenization promised to solve these problems by fractionalizing property ownership into digital tokens. In practice, most projects created isolated tokens representing a single building on a single blockchain, with no mechanism for secondary trading, no diversification, and no sustainable liquidity. The result was a landscape of “*RWA Cemeteries*” — tokens that exist on-chain but have no meaningful market or utility.

The core failures of Tokenization 1.0 include:

- Single-asset exposure with no portfolio diversification.
- No secondary market depth, making tokens effectively illiquid.
- Static valuations based on infrequent manual appraisals.
- Regulatory ambiguity, with most tokens failing to comply with securities laws.
- No institutional-grade governance, exposing investors to operator risk.

2.3 The Opportunity

The GRES Protocol is designed to address every structural failure of Tokenization 1.0 by creating not a single-asset token, but a **perpetual, diversified, AI-Augmented real estate fund** that operates on-chain with institutional-grade compliance and governance. The protocol captures the Development Alpha for a global investor base while maintaining the legal protections of traditional finance.

03 · Structural Solution

The GRES Protocol

The GRES Protocol 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 protocol operates through four integrated layers:

LAYER 01

Governance

A Swiss-style Foundation governance model — a dual-entity structure separating asset custody (Foundation) from operational management (Operator).

LAYER 02

Token

A dual token system (\$GRES and GRES.ALPHA) with distinct economic functions and lifecycle stages.

LAYER 03

Intelligence

An AI Oracle that provides real-time NAV calculations, automated due diligence scoring, and market analysis across 40+ global markets.

LAYER 04

Compliance

Permissioned token standards (ERC-3643 or L3RS-1) with on-chain identity, dynamic regulatory hooks, and cross-jurisdictional enforcement.

04 · Governance

Swiss-style Foundation

The GRES Protocol adopts a governance architecture modeled after long-standing Swiss Foundation precedent, ensuring a fundamental separation between **legal asset ownership** and **technological operational management**. The Swiss-style Foundation model protects the integrity of the underlying assets from the volatility of the technology sector and the short-term profit pressures of operating entities, providing 100+ years of legal precedent for institutions designed to outlast their creators.

4.1 The GRES Foundation

The Foundation acts as a non-profit entity with the primary mandate of holding 100% of the physical titles and deeds of real estate assets within the protocol. Structured as a Swiss-style charitable trust, the Foundation ensures that all issued \$GRES tokens remain 100% backed by tangible assets. Any issuance of new tokens for governance or performance fees is strictly tied to the audited appreciation of the underlying real estate NAV.

The Foundation provides a “*Vanguard-like*” protection for investors: assets are legally ring-fenced from the liabilities of the Operator. The board of trustees is tasked with long-term strategic oversight, ensuring the protocol adheres to its original vision of asset-backed security and transparency.

4.2 The GRES Operator

The Operator is a for-profit entity responsible for the technological infrastructure, global distribution, and day-to-day management of the fund. Its primary objective is to maximize capital raising efficiency and asset management through blockchain and AI integration. This bifurcation allows the Operator to innovate rapidly and scale global distribution while the Foundation maintains a stable, conservative legal anchor.

ENTITY	LEGAL NATURE	CORE RESPONSIBILITY	ECONOMIC OBJECTIVE
GRES Foundation	Non-Profit / Trust	Title Holding & Deed Custody	Asset Protection & Backing
GRES Operator	For-Profit / Corp	Technology & Distribution	Operational Efficiency & Scaling
AI Oracle	Technical Layer	Valuation & NAV Calculation	Price Accuracy & Transparency
Trustless Validator	Protocol Layer	Minting & Supply Control	Anti-inflationary Security

4.3 Trustless Validation and Minting Authority

Minting authority is not held by the Operator but is governed by the **Value-Accretion Protocol**. This mechanism requires a verifiable *“Proof of Value”* before any \$GRES tokens can be minted: either through the cryptographic attestation of a newly recorded deed in a land registry (Asset Onboarding) or through a validated Mark-to-Market appreciation confirmed by the AI Oracle (Value Accretion). This dual-layer validation ensures that the total token supply is mathematically capped by the fund's audited NAV, preventing inflationary risk and ensuring 100% asset backing at all times.

4.4 Separated Powers

Strategic decisions are governed by a tiered system that prevents any single entity from making unilateral changes:

- **Foundation Trustees** hold the *“Master Key”* to authorize new property additions and token minting.
- **Operator Executives** manage daily trading parameters and AI Oracle adjustments.
- **\$GRES Token Holders** participate in soft governance, including voting on regional expansion priorities and builder prioritization.

Architecture

The GRES ecosystem is powered by two distinct tokens, each serving a specific function within the protocol's lifecycle. This dual structure separates the fundraising and community-building phase from the perpetual asset management phase, ensuring clean economic incentives at every stage.

5.1 \$GRES — The Asset-Backed Token

\$GRES is the primary token of the protocol. It functions as a liquid representation of the fund's **Net Asset Value (NAV)**, mathematically linked to the performance of the underlying real estate portfolio. The price in the primary market is set by the AI Oracle's real-time calculation of the NAV.

5.1.1 NAV-PEG LOGIC

The protocol facilitates a continuous arbitrage mechanism between primary and secondary markets:

- If the secondary market price *exceeds* the NAV, investors mint new tokens in the primary market and sell in the secondary, bringing the price back to peg.
- If the secondary market price *falls below* the NAV, arbitrageurs buy tokens in the secondary market and redeem for underlying asset value, providing a price floor.

5.1.2 THE FLYWHEEL REINVESTMENT MODEL

The protocol utilizes yields from rents, interest, and occupancy to drive organic growth without dilution:

- **Yield Collection:** Operational income from assets is collected in stablecoins.
- **Asset Acquisition:** A portion of yield is reinvested to purchase new real estate, increasing total NAV.
- **Liquidity Provision:** Another portion is allocated to incentivize liquidity (\$GRES/USDC), ensuring exit liquidity at all times.
- **Value Appreciation:** Token supply increases only when new assets are added, so reinvested yield naturally raises NAV per token.

5.1.3 MINTING TRIGGERS

New \$GRES tokens are minted exclusively through the Value-Accretion Protocol, triggered by validated projects within the Builder Queue. Funding rounds are initiated when the Gross Development Value (GDV) of projects cleared by the Automated Due Diligence meets a minimum liquidity threshold. The token price is locked at the AI Oracle's calculated NAV at the start of each round, preventing predatory arbitrage and providing institutional-grade predictability.

5.2 GRES.ALPHA — The Utility Token

GRES.ALPHA is a high-performance utility instrument engineered to fund the development and deployment of the GRES Protocol. It bridges the gap between early-stage development capital and the final institutional architecture of the project.

5.2.1 CORE SPECIFICATIONS

PARAMETER	VALUE
Token Standard	ERC-20 / 18 Decimals
Network	BASE (Ethereum Layer 2)
Total Supply	250,000,000 (Fixed Hard-Cap)
Public Sale Allocation	185,000,000 tokens
Growth & Liquidity Reserve	65,000,000 tokens
Total Raise Target	\$1,000,000 USD
Issuance Currency	USDT / USDC (Stablecoin)

5.2.2 LOT ALLOCATION & PRICING

The issuance is structured into 4 distinct lots with a fixed price increase per lot, rewarding early-stage risk:

LOT	TOKENS	PRICE / TOKEN	TARGET RAISE
Lot 01	50,000,000	\$0.002	\$100,000
Lot 02	50,000,000	\$0.004	\$200,000
Lot 03	50,000,000	\$0.007	\$350,000
Lot 04	35,000,000	\$0.010	\$350,000

5.2.3 BUYBACK & BURN MECHANISM

The yield for GRES.ALPHA holders is defined by a Buyback & Burn mechanism. The protocol utilizes **0.5% of all transactional volume** to purchase GRES.ALPHA from internal liquidity pools and burn it, creating a mathematically enforced deflationary dynamic:

- **Burn Floor Price: \$0.050 USD**
- **Burn Cap Price: \$0.100 USD** (engineered for total supply absorption within 60 months)

By acquiring GRES.ALPHA, early backers secure the right to resell tokens to the protocol at the burn price and/or receive significant fee reductions within the ecosystem, representing a potential return multiple of up to 50x from the earliest lot price.

5.2.4 THE GRES SCORE & PLATFORM CREDITS

When burned, GRES.ALPHA tokens are converted into **Platform Credits** (non-transferable, off-chain accounting units). These credits are distributed via a proprietary algorithm based on:

- **User Acquisition:** Referral of verified (KYC/AML) GRES investors.
- **Investment Ticket:** Volume of capital deployed in GRES Vaults.
- **Participation Frequency:** Consistency in investment rounds.
- **Product Adherence:** Utilization of platform products and services.

Credits are subject to strict safety protocols: they can only be used to pay platform fees (Trading, Entry, Exit), can cover a maximum of 50% of any single transaction fee, and cannot be used as investment capital or withdrawn as cash.

5.2.5 GROWTH & LIQUIDITY RESERVE

The 65,000,000 tokens in the treasury reserve are allocated across three distinct pools:

- **Community Incentives Pool (20,000,000 tokens):** Early community members receive 1,000 GRES.ALPHA upon joining, with an additional 1,000 tokens available through the Social Boost program (following the protocol on Telegram and X). This pool incentivizes organic community growth and supports up to 10,000 fully-boosted members.
- **Referral Pool (20,000,000 tokens):** Community members who refer new investors earn a **10% GRES.ALPHA airdrop** on the referred purchase amount, plus a **10% USDC commission** paid directly from the purchase proceeds. *Note: this referral program is exclusive to GRES.ALPHA.*
- **Liquidity Yield Reserve (25,000,000 tokens):** Allocated for stablecoin liquidity providers upon mainnet launch, ensuring deep secondary market liquidity for \$GRES/USDC trading pairs.

Real-Time Valuation Engine

The AI Oracle is the technical cornerstone of the GRES Protocol's long-term design, intended to replace the inefficient and infrequent traditional appraisal process with real-time, **AI-augmented market corrections**. Architecture and methodology are detailed below; deployment is targeted for Phase 03–04. Once live, the Oracle will provide the institutional trust layer that enables the \$GRES token to function as a truly liquid store of value.

6.1 Multi-Agent Architecture

The Oracle utilizes a multi-agent system to scrape and process global market data 24/7. Each specialized agent performs a distinct function:

- **Market Analyzer Agent:** Monitors macroeconomic trends, neighborhood sentiment, and regional market health. Processes listings from major platforms to calculate “*Location Scores*” based on safety indices, public and private investments, tourism, infrastructure, school ratings, and historical appreciation rates.
- **Property Evaluator Agent:** Leverages Computer Vision (CV) to analyze property images and floor plans, assessing physical condition and renovation quality against comparable properties to identify over- or undervaluation.
- **Financial Calculator Agent:** Performs real-time calculations of Cap Rates, Cash-on-Cash returns, and 5-year ROI projections as market conditions shift. Integrates dynamic interest rate data and tax schedules to refine Net Operating Income (NOI) estimates.
- **Decision Engine:** Synthesizes outputs from all agents to provide a unified investment grade (A+ to D) and a confidence score, determining the weight of each asset within the GRES Token INDEX. *Human governance reviews all exceptions.*

6.2 Data Integrity and Error Correction

To ensure institutional trust, the Oracle employs advanced statistical methods:

- **Multimodal Integration:** Combines text-based descriptions, visual images, and spatial geodata to reduce single-source error impact.
- **Outlier Management:** Uses modified Z-scores and Interquartile Range (IQR) rules to flag and exclude exaggerated listing data or market anomalies.
- **Explainable AI (XAI):** Provides audit trails for every valuation change, allowing regulators and institutional investors to trace specific data points influencing any price correction.
- **Ground Truth Integration:** In low-density markets, Regional Agents act as decentralized validators to verify physical property conditions that digital scraping may not capture.

Architecture & User Journeys

The GRES application ecosystem accommodates four distinct personas, each with specific technical requirements and operational incentives based on a model of scheduled capital raising and AI-augmented asset management.

7.1 Investors

Investors seek a “Store of Value” with high liquidity. Primary \$GRES acquisition occurs during scheduled funding rounds triggered by the validation of new development projects. Their journey begins with ONCHAINID creation (KYC/AML), followed by token purchase via stablecoins or fiat gateways. They interact with a dashboard displaying real-time NAV, daily yield accrual, and collateralization capacity for financial services integrated to the platform.

7.2 Builders

Builders — real estate developers, hospitality operators, and property flippers — utilize the protocol to raise capital more efficiently than traditional banking. Their journey involves submitting project documentation for Automated Due Diligence. Approved projects enter a strategic queue determined by expected returns and portfolio rebalancing needs. Once selected, the project is tokenized as an “Asset Vault,” and capital is released in tranches upon completion of construction milestones.

7.3 Admins

Admins (Operator personnel) manage the protocol's operational parameters and overall platform. This includes adjusting compliance hooks for new jurisdictions, managing user identities and permissions, overseeing the AI Oracle's scraping parameters, and performing the Trustless Validation of new assets entering the fund.

7.4 Agents — The Ecosystem's Distribution & Intelligence Network

Agents form the protocol's decentralized distribution and ground-truth verification layer. They bridge the gap between digital intelligence (AI Oracle) and physical-world operations, while simultaneously driving token placement, asset sourcing, and investor acquisition across multiple markets.

All Agent profiles operate under a unified incentive framework governed by the protocol. Compensation is performance-based and may include origination commissions, recurring management fees, GRES.ALPHA airdrops, and preferential allocation rights in future funding rounds. Agent onboarding requires identity verification (KYC/AML) and, where applicable, proof of professional licensing, ensuring that the distribution network maintains the same institutional-grade compliance standards as the rest of the ecosystem.

The Agent layer is designed to be extensible: as the protocol scales into new geographies and asset classes, additional partner profiles — such as construction supervisors, legal correspondents, and property inspectors — can be onboarded under the same framework, ensuring the GRES ecosystem grows with a decentralized but quality-controlled operational footprint.

AGENT PROFILE	CORE FUNCTION	PRIMARY INCENTIVE
Regional Market Experts	Ground-truth validation, off-market sourcing, localized intelligence for the AI Oracle	Verification fees + preferential allocation in funding rounds
Real Estate Agencies & Brokerages	Asset sourcing, local marketing & transaction execution for the Builder pipeline	Origination-linked commissions per qualified deal
STR Management Companies	Occupancy optimization, revenue management & property operations for portfolio assets	Performance-based management fees tied to NOI
Distributors & Placement Partners	\$GRES token placement with institutional and HNW investor networks	Placement fees + recurring trail commissions on originated AUM
Influencers & Community Ambassadors	Awareness, education & top-of-funnel investor acquisition	GRES.ALPHA airdrops from Growth Reserve (conversion-based)

Automated Due Diligence Protocol

To scale safely, the GRES Protocol implements an automated due diligence protocol that every builder and project must pass. The ADD integrates legal, financial, and technical checks to ensure institutional-grade rigor at scale.

8.1 The ADD Checklist

- **Issuer Background:** Automated screening of directors and controlling shareholders against global sanctions and criminal databases.
- **Asset Eligibility:** Verification of clear title and absence of undisclosed encumbrances through land registry integration.
- **Feasibility Analysis:** AI-augmented assessment of market demand, project viability, and alignment with GRES's strategic focus.
- **Structural Audits:** Automated review of the investment vehicle to ensure it is “*bankruptcy-remote*” and legally isolated from the builder's other liabilities.
- **Smart Contract Monitoring:** Continuous auditing of the builder's “*Asset Vault*” contract to prevent unauthorized withdrawals or changes to distribution logic.

8.2 Investment Thesis

The Foundation prioritizes **Value-Add** and **Development** projects that offer the highest delta between acquisition cost and finished market value. As projects reach maturity and generate rental income, the fund transitions them into a “*Stabilized*” portfolio providing recurring cash flow that fuels the reinvestment flywheel.

8.3 Oversubscription Logic

In the event of round oversubscription, allocation priority is determined by loyalty and strategic value:

- **Pro-rata for Existing Holders:** Protects current investors from unnecessary dilution.
- **Strategic Allocation:** Priority for liquidity providers and institutional partners who stabilize the secondary market.
- **Retail Pool:** Remaining allocation distributed on a first-come, first-served basis.

Framework & Compliance

The GRES Protocol is currently evaluating multiple jurisdictions to determine the optimal legal structure for tax efficiency and regulatory compliance, particularly concerning security token issuance and real estate deed holding. The final jurisdictional architecture will be confirmed upon completion of the ongoing legal and regulatory study, and this section will be updated accordingly.

9.1 Foundation Jurisdictions

LUXEMBOURG

Currently considered the most advanced European jurisdiction for fund-based RWA tokenization. Through the Reserved Alternative Investment Fund (RAIF) and Special Limited Partnership (SCSp), Luxembourg provides a robust framework for asset managers to issue tokens recognized across the EU via the AIFMD passport.

SWITZERLAND

Switzerland's DLT Act of 2021 provides unparalleled legal certainty for *"ledger-based securities."* Under Swiss law, tokens can legally represent a right without requiring a paper-based certificate, and on-chain transfer constitutes legal transfer of the underlying right.

LIECHTENSTEIN

The Blockchain Act (TVTG) utilizes the *"Token Container Model,"* where a token acts as a legal shell containing any right. This provides a clean legal bridge for real estate, where the token *"container"* holds the beneficial interest in the property deed.

9.2 Operator Licensing

The GRES Operator requires a license permitting crypto-asset services (CASP) under the Markets in Crypto-Assets (MiCA) regulation. **Spain is being evaluated alongside Luxembourg and Liechtenstein,** supported by a 25% corporate tax rate (15% for qualifying startups), significant R&D tax credits of up to 42%, and a transitional compliance period through June 2026. Final jurisdiction will be confirmed upon completion of the ongoing legal and regulatory study.

9.3 On-Chain Compliance Standards

The protocol evaluates two institutional-grade token standards for on-chain compliance:

ERC-3643 (T-REX)

A permissioned token standard designed for regulated securities. It integrates ONCHAINID for decentralized identity, dynamic compliance rules, and clawback functionality for court-ordered transfers.

L3RS-1 (LAYER 3 REGULATORY STANDARD)

A next-generation standard designed for strictly regulated RWAs, featuring federated identity across jurisdictions, deterministic cross-ledger integrity, and advanced lifecycle automation including capital calls, dividend distributions, and immutable burn/redemption tracking.

FEATURE	ERC-3643	L3RS-1
Scope	Permissioned tokens on EVM networks	Cross-ledger RWA governance
Identity	ONCHAINID (single system)	Federated Identity (multi-oracle)
Compliance	External Validator contract	Hardcoded native rules
Interoperability	Single-ledger focus	Cross-ledger integrity
Lifecycle	Basic (freeze, clawback)	Advanced (capital calls, dividends, redemptions)

9.4 Dual-Layer Title Architecture

The protocol handles jurisdictions that do not recognize DLT-based ownership through a dual-layer approach:

- **Primary Anchor:** In DLT-advanced jurisdictions, the token constitutes legal transfer under the Swiss DLT Act.
- **Fallback Mechanism:** For jurisdictions lacking DLT recognition, the Foundation holds 100% of physical deeds and titles as a trust, using the *“Token Container Model”* to represent beneficial interest.

10 · Revenue

Model & Financial Projections

The GRES Operator is structured to achieve extreme operational efficiency by replacing traditional back-office labor with AI-augmented workflows. Revenue is generated through multiple high-margin, diversified streams.

10.1 Revenue Streams

- **Origination Fees (2.0%):** Charged on total capital raised for new builder projects, paid in fiat or stablecoins for immediate operational liquidity.
- **Asset Management Fees (1.5%):** Recurring annual fee on total AUM, minted in \$GRES tokens with a 12-month linear lock-up.
- **Performance Fees (20% Carry):** Triggered via a Soft Hurdle of 8% with a Catch-up provision. Minted in \$GRES tokens (12-month lock-up) based on Mark-to-Market valuations and realized yields. Subject to a High-Water Mark with Clawback Provision.
- **Trading & Liquidity Fees (0.3%):** Captured from secondary market volume on the GRES Exchange.
- **Financial Services Spread:** Revenue from Net Interest Margin on \$GRES-backed credit facilities.
- **Builder Exit Fees (2.0%):** Charged when builders withdraw capital for physical construction.

10.2 Five-Year Financial Projections

KPI / METRIC	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Total AUM	\$10M	\$60M	\$200M	\$500M	\$1B
Token Price (\$GRES)	\$1.00	\$1.18	\$1.39	\$1.71	\$2.07
Operating Revenue	\$450K	\$3.2M	\$12M	\$33M	\$65M
COGS	\$120K	\$800K	\$2.6M	\$6M	\$10.8M
Gross Margin	73.3%	75.0%	78.3%	81.8%	83.4%
Total OpEx	\$1.25M	\$3M	\$6.7M	\$14M	\$21.7M
EBITDA	-\$920K	-\$600K	\$2.7M	\$13M	\$32.5M
EBITDA Margin	-204%	-18.8%	22.5%	39.4%	50.0%

10.3 Performance Fee Safeguards

Performance fees are subject to a **High-Water Mark with Clawback Provision**: if the NAV of an underlying asset falls below the performance hurdle before stabilization or sale, locked tokens are returned to the Foundation, ensuring the Operator's incentives remain aligned with actual realized growth.

Development Phases

The GRES Protocol follows a phased development approach designed to progressively build the legal, technological, and operational infrastructure required for a fully autonomous, perpetual real estate fund.

11.1 Genesis — Foundation & Community · Deployed

The Genesis phase establishes the project's identity, legal architecture, and early community. Deliverables include the deployment and Basescan-verification of the GRES.ALPHA smart contracts, the activation of the BASE L2 treasury secured by a Gnosis Safe multisig, the publication of institutional-grade documentation (Whitepaper, Digital Assets Paper, Communication Charts), finalization of the visual identity and design system, activation of community channels (Telegram, X, LinkedIn), the definition of the full platform backlog (93 stories across 18 epics), and the opening of the GRES.ALPHA pre-sale (4 lots, \$1M cap).

11.2 Blueprint — Protocol & First Assets · In Progress (4-8 months)

The Blueprint phase activates the institutional layer of the protocol. Key objectives include the independent Tier-1 smart contract audit, the formation of the Swiss-style Foundation, EU jurisdiction filings (Spain, Luxembourg, Liechtenstein currently under evaluation), MiCA-aligned legal structuring, the architectural definition and tech stack of the AI Oracle, the first version of the Automated Due Diligence (ADD) system, the launch of the Builder portal, the integration of KYC/AML onboarding for investors, signing Letters of Intent with European real estate promoters, and the activation of a public transparency portal with capital allocation reporting.

11.3 Ignition — Mainnet & Flywheel · Targeted 12-18 months

The Ignition phase marks the transition to a live, production-grade protocol. Deliverables include the mainnet launch of the \$GRES asset-backed token, the activation of the AI-Augmented Oracle for daily NAV calculation, the on-chain registration of the first property deed (Proof of Deed), the implementation of the ERC-3643 or L3RS-1 native compliance layer with ONCHAINID integration, the activation of the GRES.ALPHA Buyback & Burn mechanism (0.5% of transactional volume), the conversion of

GRES.ALPHA into Platform Credits, the establishment of \$GRES/USDC liquidity on DEXs, the publication of verifiable on-chain Proof of Reserves, and the activation of holder governance.

Phase ∞ — Perpetual: The Fund That Never Stops

The long-term vision is a fully autonomous, perpetual real estate fund targeting \$1 billion in AUM. This includes expanding the AI Oracle to 40+ global markets with computer vision and 24/7 scraping, operating a deep secondary market (GRES Exchange), delivering holder loyalty programs with access to portfolio properties, and achieving a largely AI-augmented back-office for structural operational efficiency.

For detailed milestone tracking and real-time progress updates, visit the official development roadmap at gres.network.

12 · Security

& Risk Mitigation

12.1 Protocol Resilience

- **Proof of Reserves (PoR):** Real-time on-chain attestations ensuring the total \$GRES supply is matched by the valuation of Foundation-held assets.
- **Tier-1 Audits:** Mandatory smart contract audits by firms such as CertiK or Hacken for every major protocol upgrade.
- **Liquidity Incentives:** External Liquidity Providers receive a portion of protocol returns for providing secondary market depth, allowing 100% of AUM to remain deployed in real-world assets.
- **Multi-Sig Governance:** Forced transfers and clawback operations require multi-signature authorization between Foundation and Operator.

12.2 Oracle Risk Management

- **Hybrid Validation Engine:** Combines digital scraping with human verification through Regional Agents.
- **Statistical Guardrails:** Modified Z-scores and IQR rules prevent flash anomalies from affecting NAV.
- **Divergence Protocol:** Discrepancies exceeding 5% between AI Oracle and Regional Agent valuations trigger mandatory third-party independent audits.

12.3 Regulatory & Legal Risk

- **Dual-Layer Title Architecture** ensures enforceability across jurisdictions with and without DLT recognition.
- **Dynamic Compliance** via ERC-3643/L3RS-1 allows real-time adjustment of transfer rules to reflect changing regulations.
- **Bankruptcy-Remote Structures** isolate each asset from builder and Operator liabilities.

12.4 Data Protection

All data is secured according to bank-grade data protection laws, with full GDPR compliance for European users. KYC/AML data is managed through verified credential systems that minimize data exposure while maintaining regulatory compliance.

Real Estate, Re-Architected

The GRES Protocol represents a fundamentally more sophisticated approach to real estate tokenization than its predecessors.

By institutionalizing the Swiss-style Foundation governance model, implementing permissioned token standards for compliance, and deploying an AI Oracle for real-time valuation, the protocol provides a bridge for institutional and retail capital to enter the RWA space with confidence.

The dual token architecture ensures clean economic incentives at every stage: GRES.ALPHA funds the development phase and rewards early supporters, while \$GRES provides a perpetual, asset-backed store of value that appreciates through the reinvestment flywheel.

The protocol's ambition is 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 GRES Protocol is not merely tokenizing buildings; it is engineering the future of real estate ownership.

Legal Notice

Disclaimer

This whitepaper is provided for informational purposes only and does not constitute a security offer, investment advice, or a solicitation to invest. The information contained herein is subject to change without notice and may be updated as the GRES Protocol evolves.

Participation in the GRES Protocol carries inherent risks typical of early-stage ventures and digital assets, including but not limited to: regulatory uncertainty, technology risk, market volatility, liquidity risk, and the potential for total loss of capital.

The GRES.ALPHA token is a utility instrument and does not represent equity, debt, or any form of ownership in the GRES Foundation or the GRES Operator. \$GRES tokens represent a proportional claim on the Net Asset Value of the fund but are subject to the terms and conditions of the protocol.

You are strictly obligated to consult with your legal and financial advisors before making any decision related to this project. You must proceed only after a conscious, independent evaluation of the risks involved.

The GRES Protocol and its tokens are not available to US Citizens, US residents, or US Persons as defined under SEC Rule 902(k) of Regulation S, nor to persons located in the United States. By participating in the protocol you confirm you do not fall within any of these categories.

GRES Protocol Team

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