



Infrastructure Financial Quality Assurance with Geospatial Intelligence

Verification-driven quality assurance for community infrastructure — turning as-built claims into geospatially confirmed fact

Read Case Study and white paper at [IFQAF.org](https://ifqaf.org)

Sunil Menon

Creator, IFQAF®

Zachary Sherman

Founder, Mapping Miracles LLC

One Verification Engine Controls Every Dollar

IF QAF == 'TRUE' ,



TRUE

RELEASE MONEY

If Verification Engine clears all five oracle gates



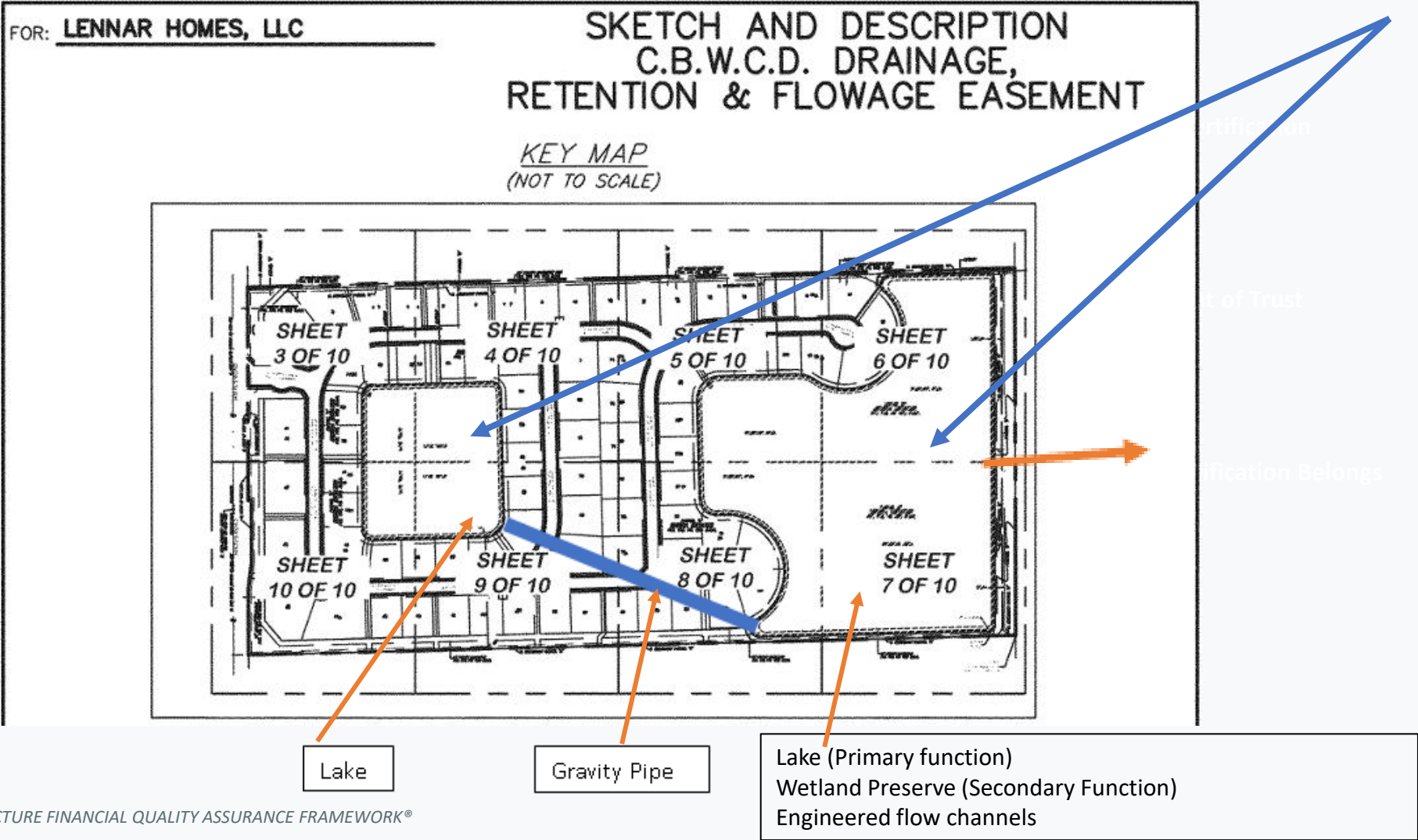
ELSE

BLOCK MONEY

If any oracle gate of the Verification Engine does not clear

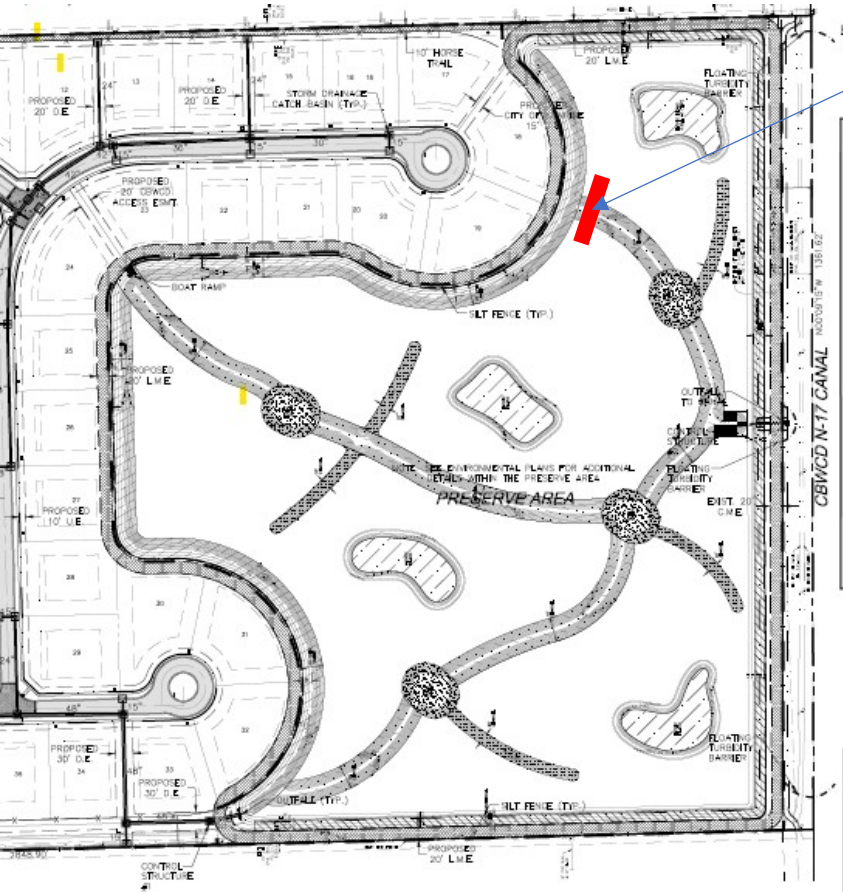
Overview of Community

Each HOA member has undivided statutory rights and interest to common area properties per Florida law and U.S. Constitutional rights

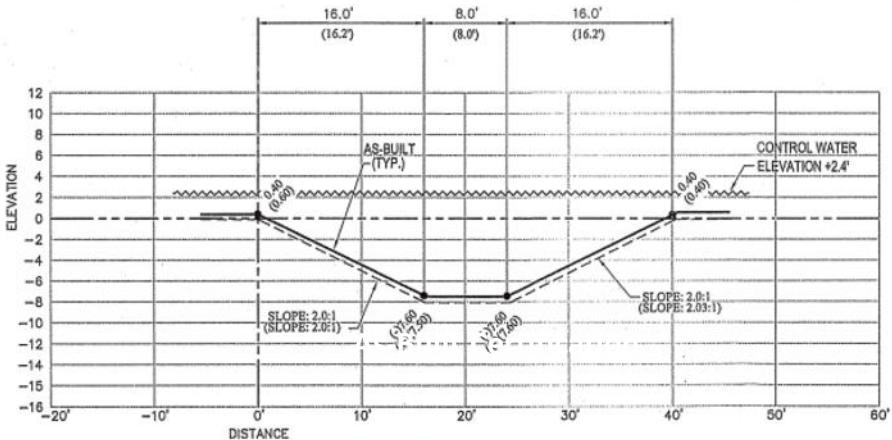


CASE STUDY CONTEXT

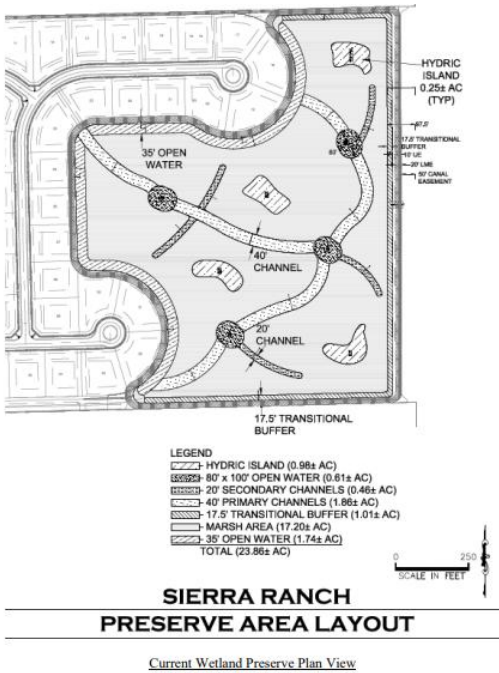
Engineered Channels Planned/ Purportedly Executed



Section 56-66



SECTION No. 66
40' CHANNEL

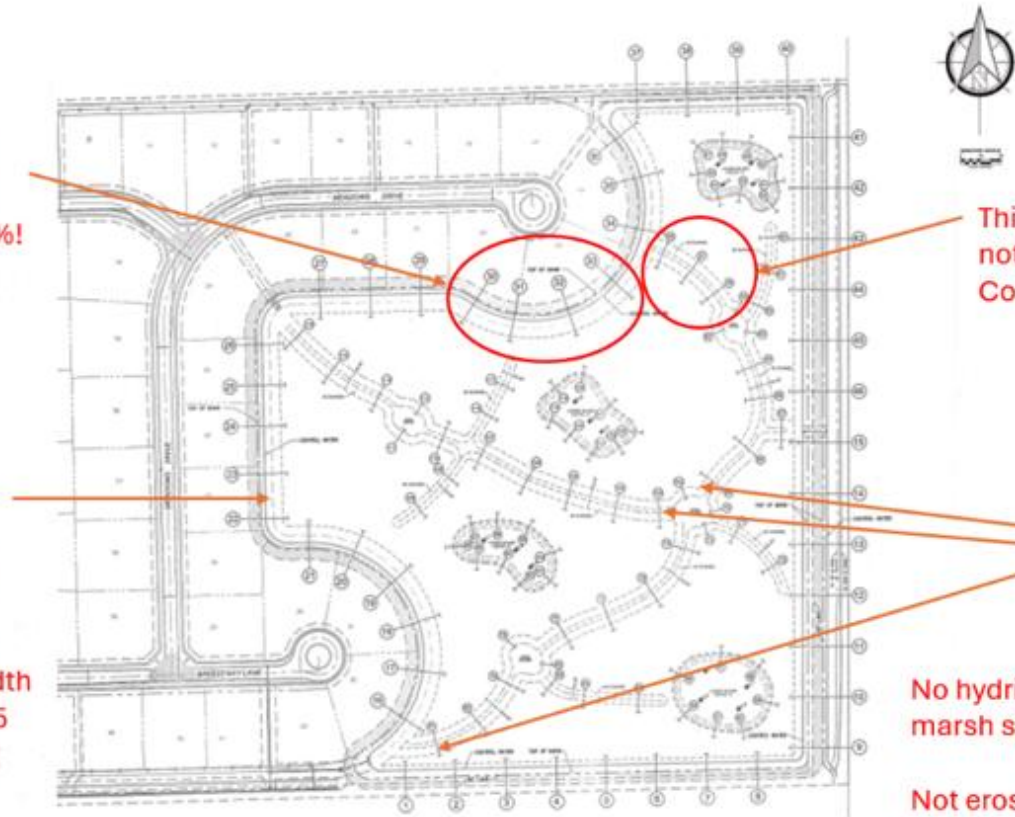


Essential facts of the situation- Purported Engineering as-built

Engineered flow channels for stormwater management (Primary function)

Width measurements between purported as-builts and Broward County Property Appraiser aerials show deviations of as much as 79%!

This was engineered to the wrong depth contrary to both the environmental plan per SFWMD permit and 10-foot minimum depth CBWCD drainage district depth regulation! 10-foot minimum depth excavation results in open water width being minimum 47 feet instead of 35 feet in plans due to CBWCD grading rules



This 40-foot wide 10-foot-deep section does not exist as clearly visible from Broward County Property Appraiser 2022 aerials!

How can 10-foot-deep channels shallow so much in just 2-3 years?
Or were they ever cut to the purported depth in the as-builts?

No hydric berm to prevent sloughing and contain marsh species in designated areas

Not erosion resistant

Infrastructure Quality Problems with Geospatial Intelligence



Aerial & Satellite Temporal Analysis

Independent geospatial imagery, captured over time, reveals what the ground actually looked like at and after construction — outside the control of any single certifying party.



Field Cross-Section Survey September 2023

16 independent cross-sections walked the full channel length, physically measuring width and depth against the approved design at regular intervals.



Independent Confirmation

A county valuation authority's own aerial data independently confirmed the missing channel — corroborating the geospatial and field findings from a fully separate source.

Three independent evidentiary lines — imagery, field survey, and third-party aerial data — converge on the same finding: certified as-built records diverged materially from physical reality.

Aerials consistently show the channel was never excavated

Shown by Broward County Appraiser Aerials and other aerials

Sierra Ranches Preserve | BCPA 2021
Source: BCPA Aerials | CRS: EPSG:6346



Sierra Ranches Preserve | BCPA 2022
Source: BCPA Aerials | CRS: EPSG:6346



Sierra Ranches Preserve | BCPA 2026
Source: BCPA Aerials | CRS: EPSG:6346

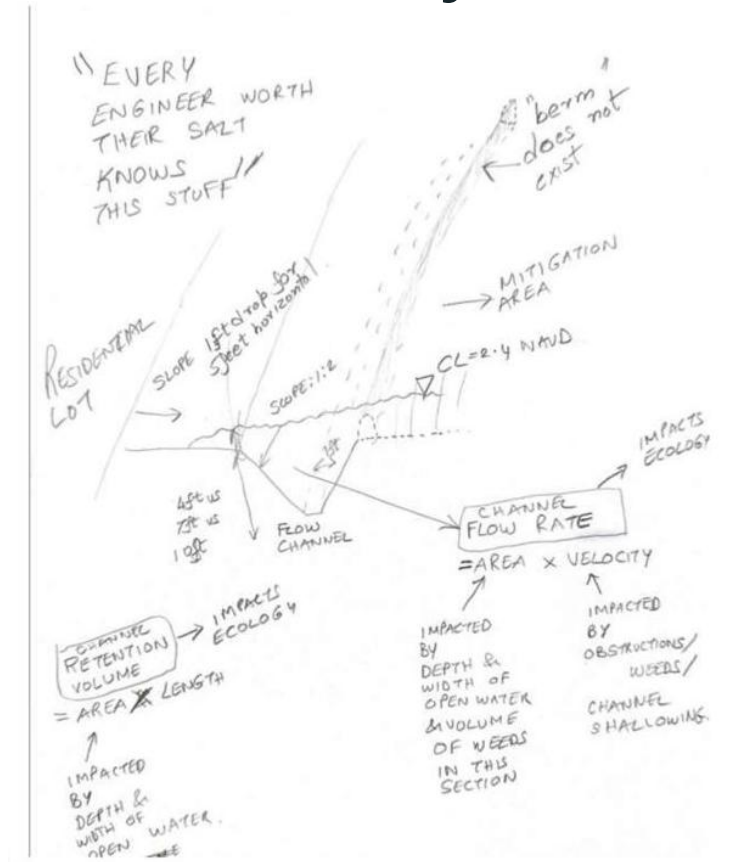


TELL TALE SIGNS

Supplementing Aerial Data with Ground measurements and domain knowledge – Cross pollination of data is key



September 2023 Surveying of drainage, flowage, retention channels adjacent to residential lots Surveyor standing at the deepest part of a supposedly 7-foot deep channel. 16 cross sections examined. Findings reinforced per Feb 2025 HOA Study for the whole preserve that also shows the missing channel.

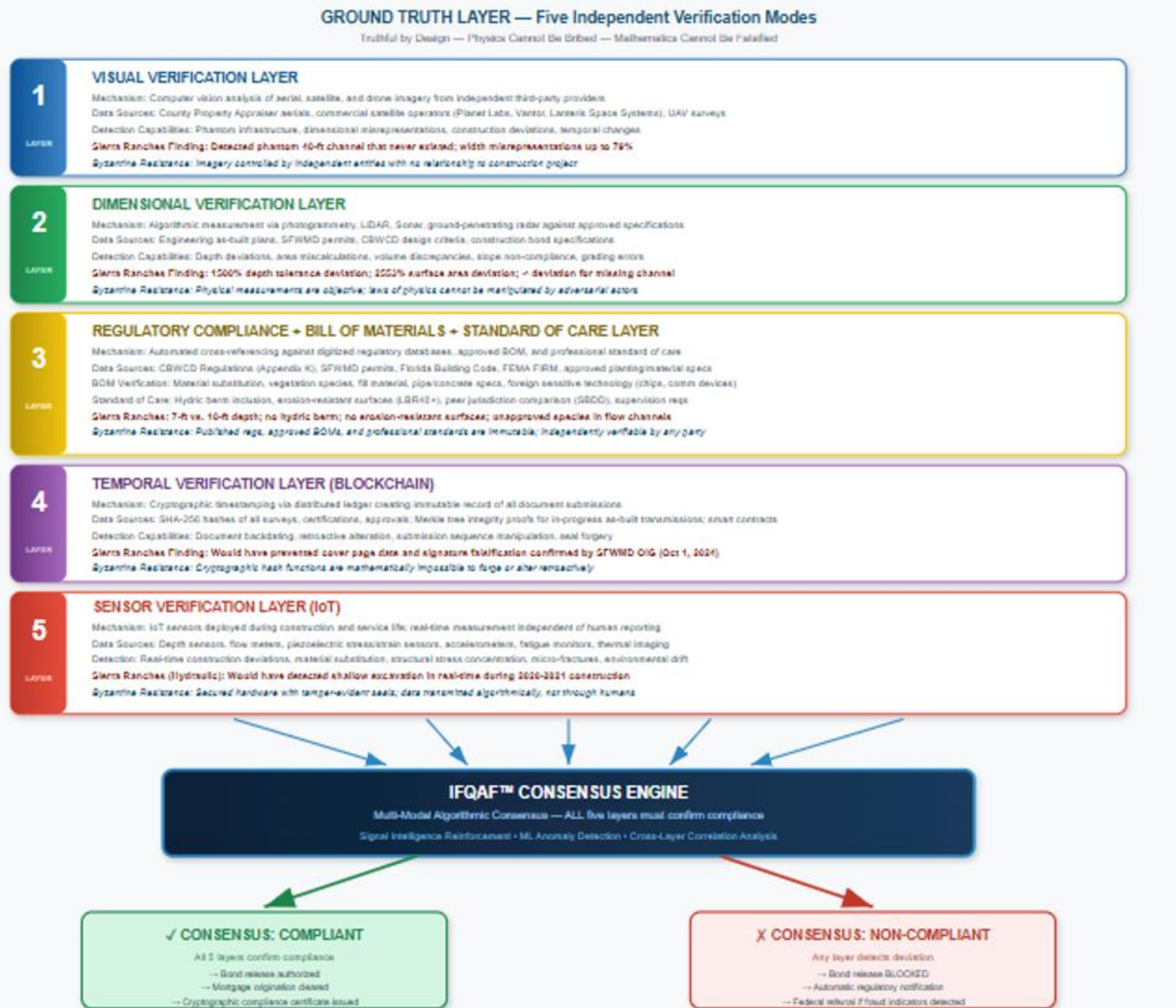


Domain knowledge: Using Channel dimensions and current state to predict the flowage, drainage and retention characteristics. Shared with new CBWCD district manager (no longer employed there) in February 2024.

IFQAF® CONSENSUS ENGINE

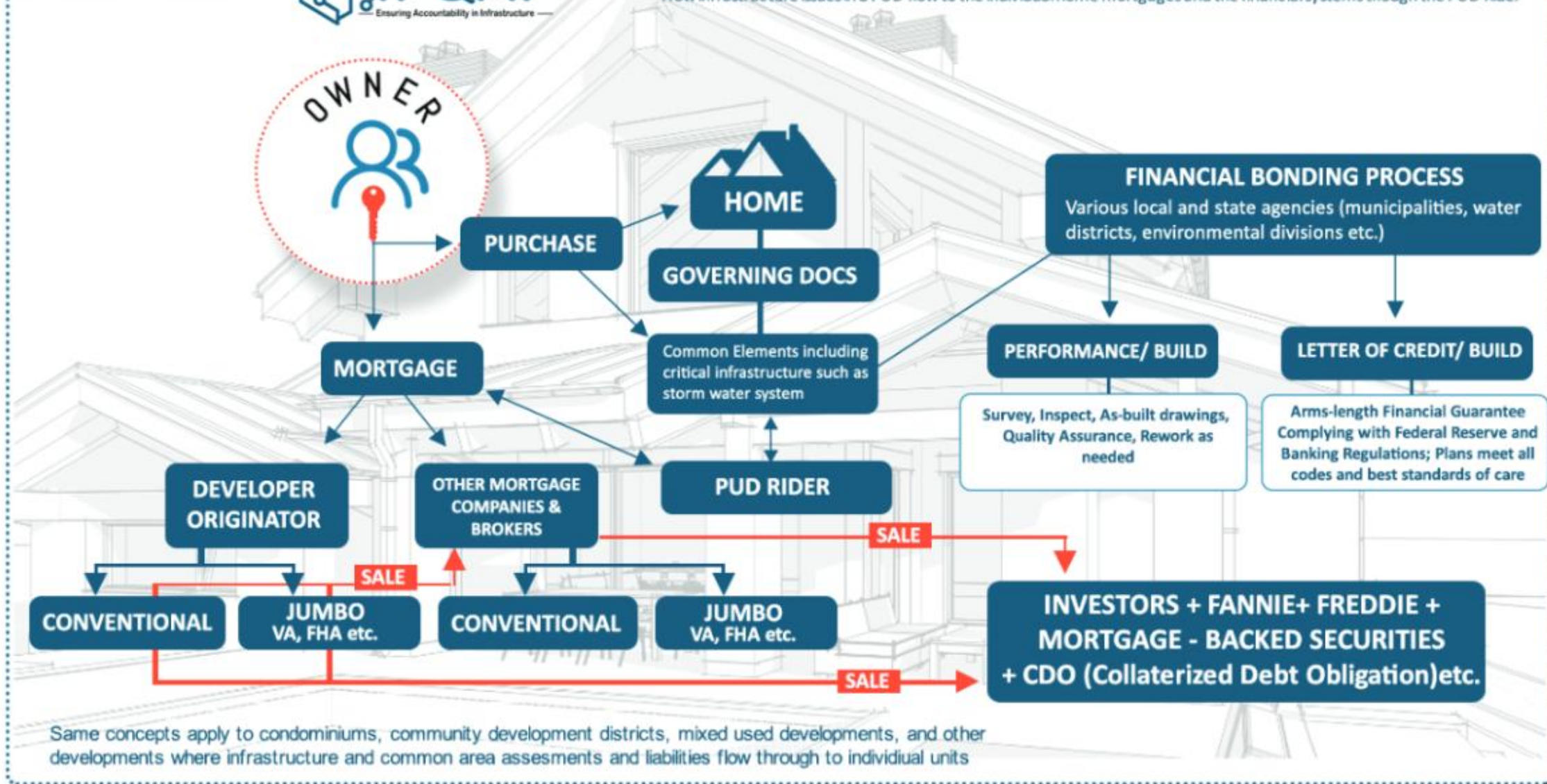
Generate evidentiary basis to:

- Protect U.S. Constitutional Rights (1st, 4th, 5th, 13th and 14th Amendment rights)
- **Pursue Civil Action for Deprivation of Rights** (42 U.S.C. § 1983) — Vehicle for constitutional claims (1st, 4th, 5th, 13th, 14th Amendments) against state or local actors acting under color of law — applies to agency/municipal conduct, and potentially to private parties-government agencies under enterprise theory
- Enforce Eleven Distinct areas of Federal Law (with multiple statutes in each area)



SCHEMATIC :: INFRASTRUCTURE FINANCIAL QUALITY ASSURANCE FRAMEWORK®

How infrastructure issues in a PUD flow to the individual home mortgages and the financial systems through the PUD Rider



Ask your senators, U.S. representatives and other elected officials and leaders to make IFQAF® the U.S. Infrastructure Financial Quality Assurance Verification and Enforcement Protocol

Read the case study and white paper.

A real, documented infrastructure verification failure — and the standard that would have caught it — laid out in full at ifqaf.org.

ifqaf.org



SCAN TO READ



Sunil Menon

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