URBPLAN 734 · SMART CITY PLANNING

Auckland Property 'Parcel Passport'

One passport.
One property.
One point of information
One thousand choices.

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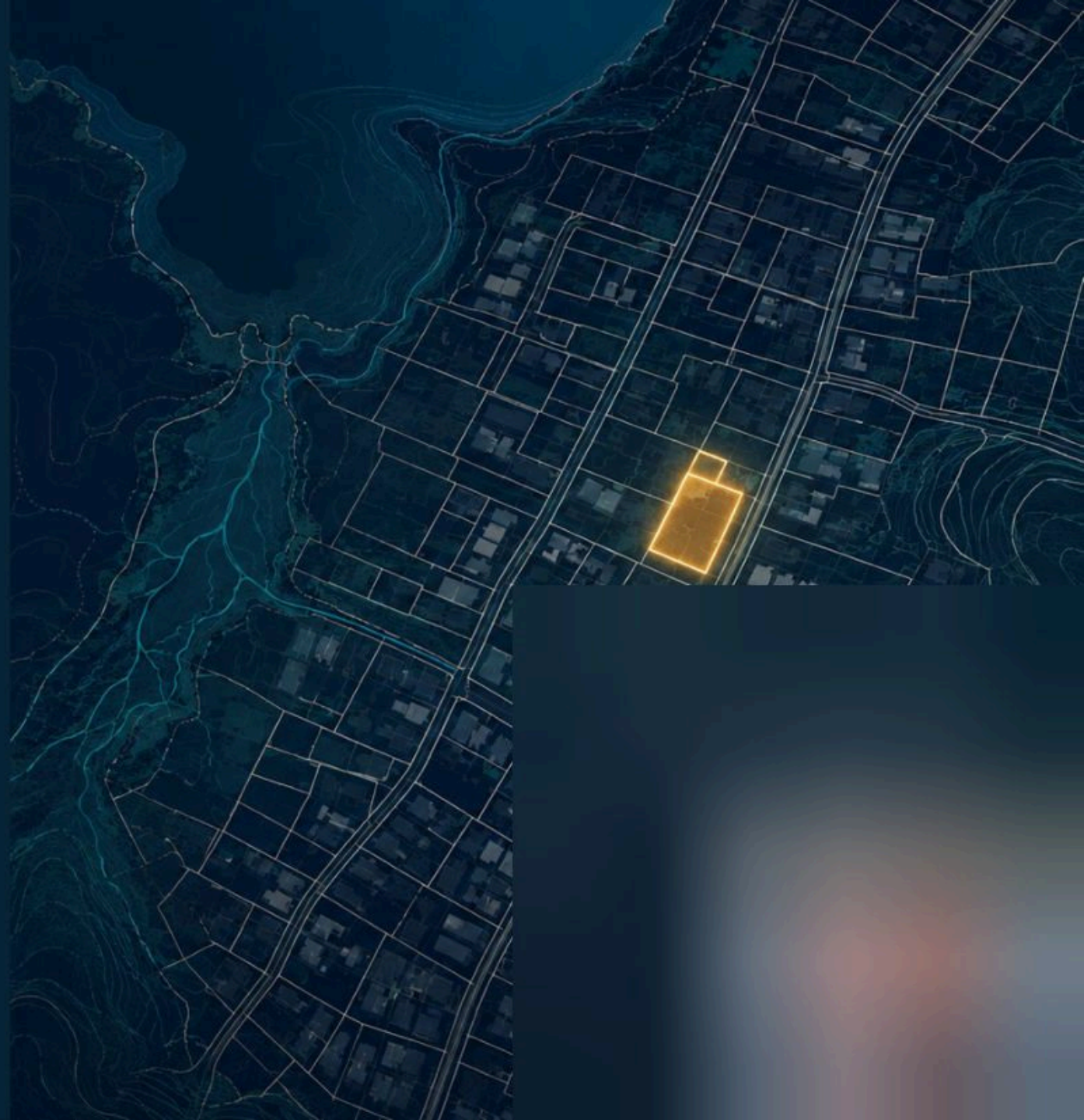


Could the planning process be more user friendly?

Many Points of Information

GeoMaps
Mapped Information

AUP
Rules, Standards & Overlays

Consultants
The Middleman - $$$

Watercare
Network Limitations

Design guidance
Following Best Practice?

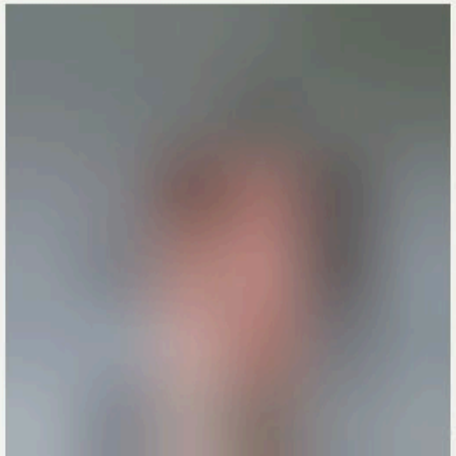
Feasibility
Project Assumptions

Administrative & Regulatory Burden

- **Intensive due diligence**
- **Soft costs**
- **Time**

And do we get better outcomes??

- **Yeah nah?**

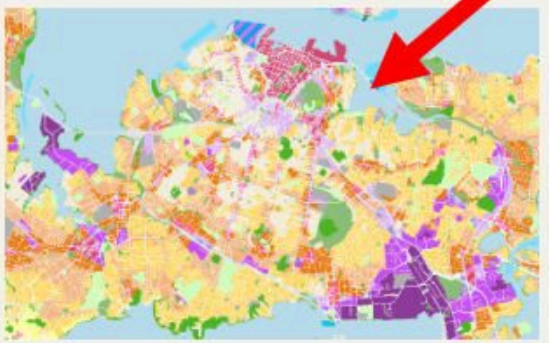


Sustainable Development Goals

Isn't the UN Awesome :)

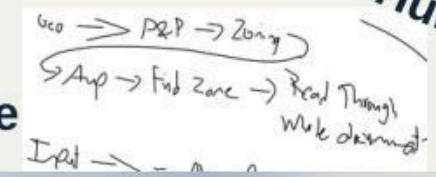


What Do These Mean???

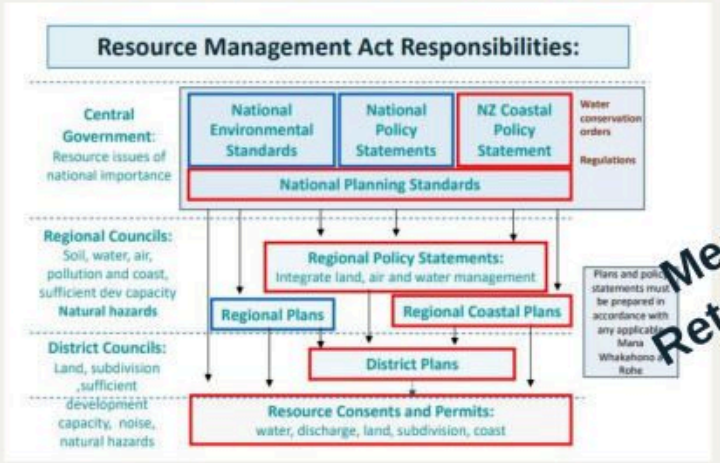




Huh?



What does all this mean?



Mercury in Retrograde?!?



Not the Same Map Tool?

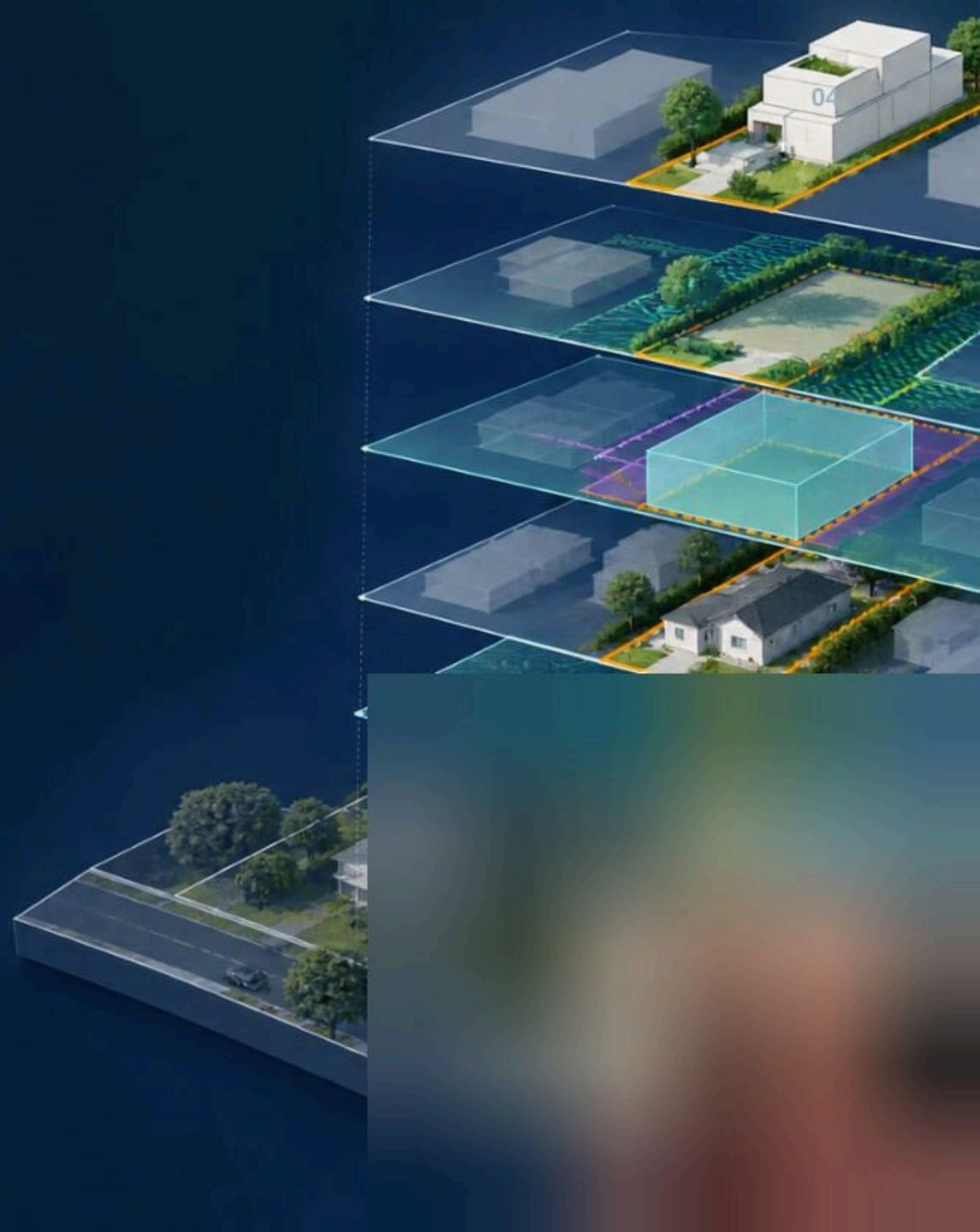


What?

ONE PUBLIC RECORD

Six layers stay visibly different.

Physical geography	mapped / observed
Statutory planning	legal status
Guidance	advice, not law
User assumptions	editable inputs
Modelling	calculated outputs
Professional judgement	explicit limits



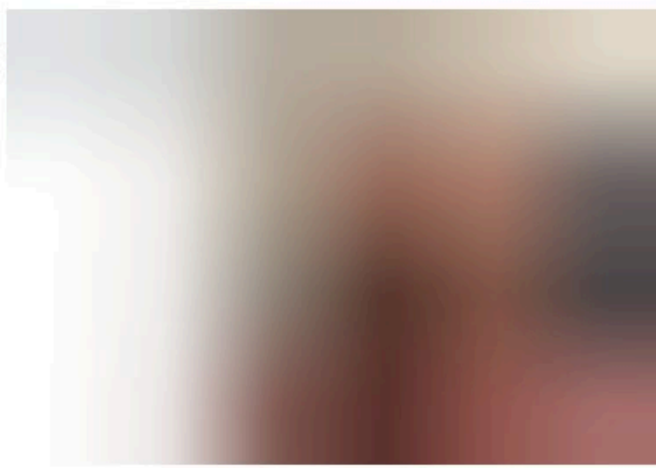
Every consequential result carries its evidence and its limits.

MAPPED FEATURE

A flow-path layer intersects the parcel.

Not: ‘the site is unsafe.’
Not: ‘no mapped feature means no risk.’

SOURCE	Who maintains the evidence
DATE	When it was updated
SCALE	What resolution supports
LIMIT	What it cannot



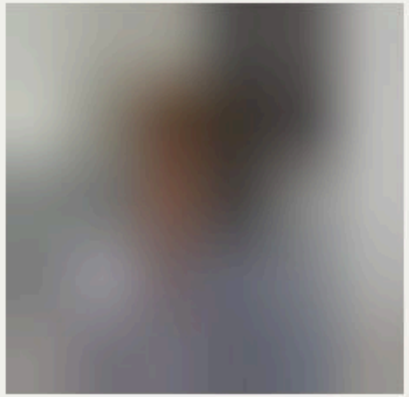
What Can the Tool Do?

Brings Together

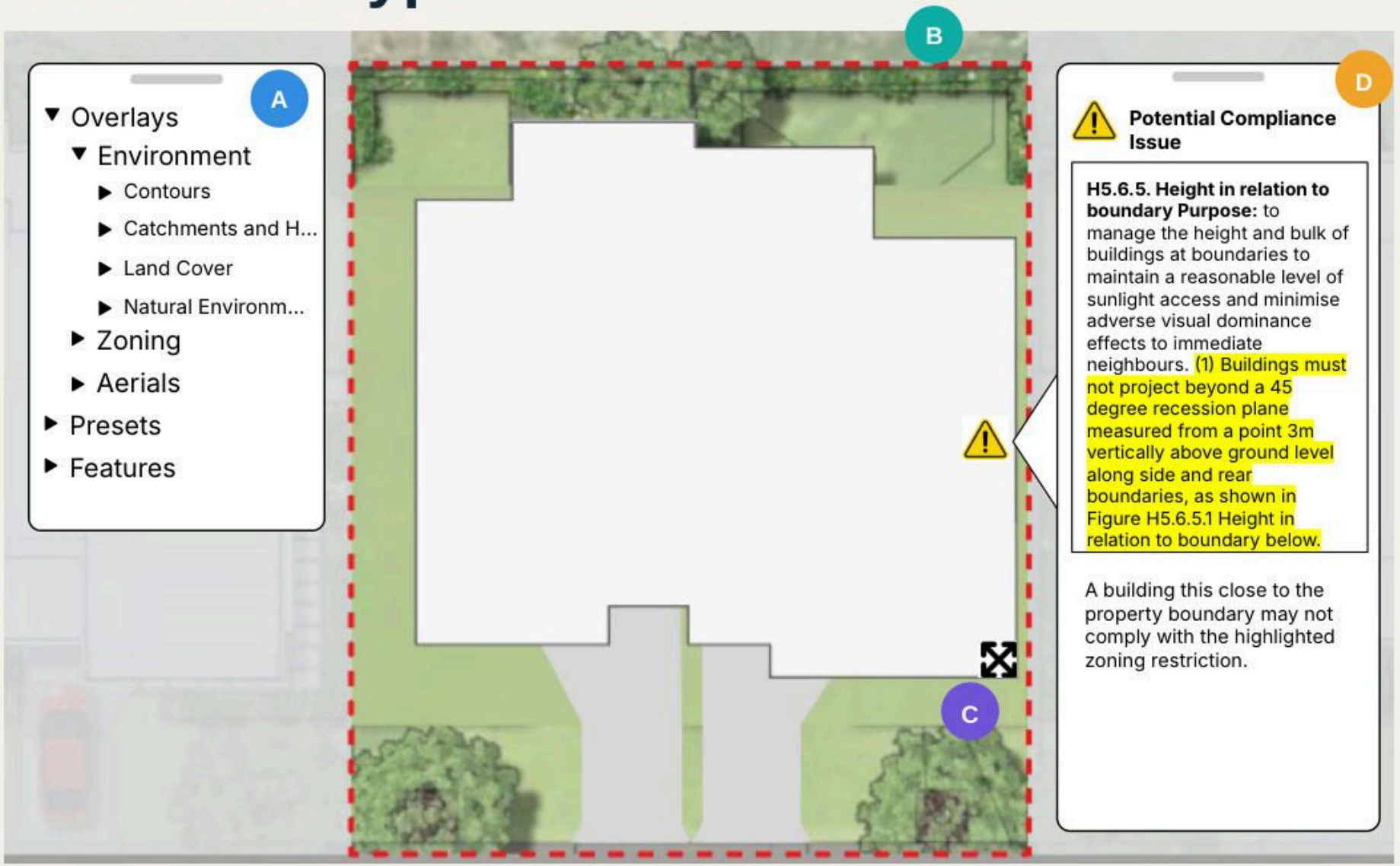
- Geographical Terrain
- Natural Hazards
- Zoning and Standards
- Infrastructure Mapping

New Capabilities

- Retain or Remove Existing Structures
- Edit Building Typology
- Discover Cost Estimates
- Make Design Choices



User Prototype



A **Editing Tools**

B **Property Boundary**

C **Adjustable Features**

D **Warnings and Recommendations**

Compare the Benefits and Costs



A **Retain + Add**



B **Terraced Housing**

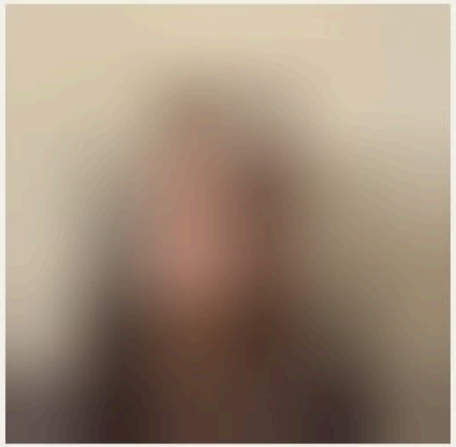


C **Dense**

The components are proven.
The integration is the innovation.

PARCEL JOURNEY	**Symbium**	address → parcel → design task
RULE SERVICE	**PlanSA · PlanX**	applicable rules made navigable
BOUNDED CHECKS	**CORENET X**	deterministic checks + professional responsibility
SCENARIO + FEASIBILITY	**Penciler · Terner**	visible, editable assumptions

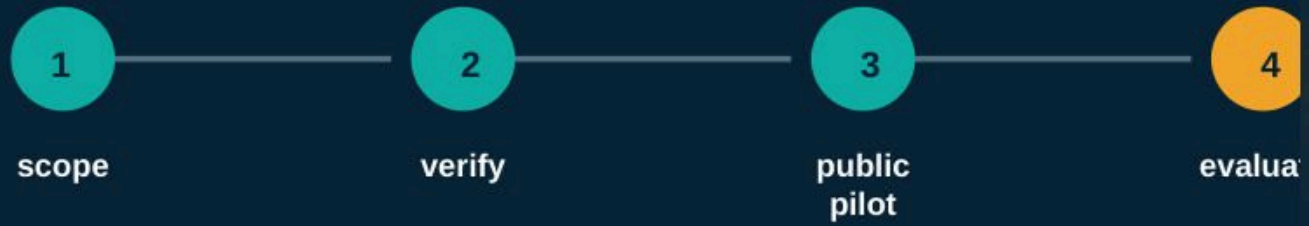
PUBLIC EVIDENCE → USABLE DECISIONS

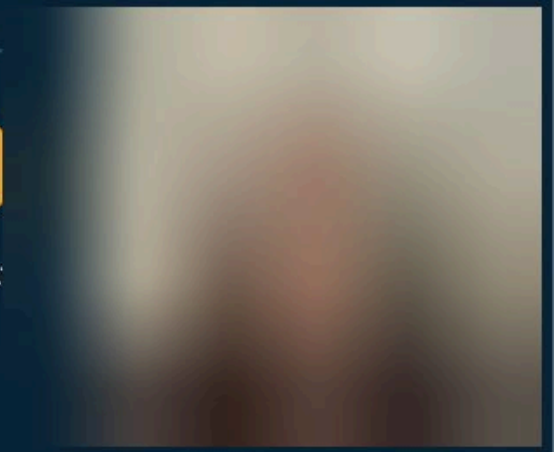


Credibility comes from what the Passport refuses to claim.

- **No consent guarantee** → link every result to its source
- **No profit promise** → expose editable assumptions
- **No universal design score** → retain professional judgement
- **No false hazard certainty** → show uncertainty beside the map

START BOUNDED





Availability becomes useful only when a parcel question can be answered.

EVIDENCE EXISTS

- maps
- plan text
- hazards
- networks
- guidance
- feasibility

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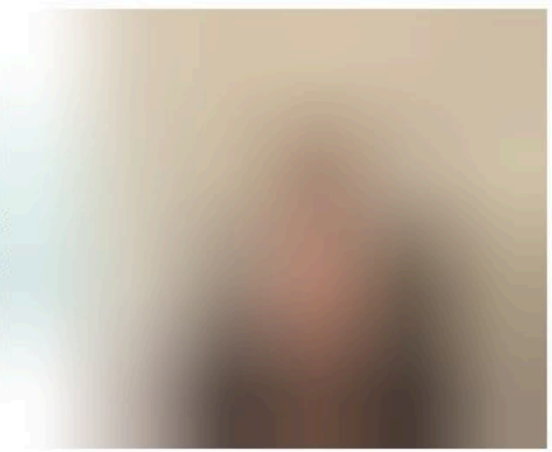
PUBLIC MECHANISM

1. integrate cited evidence
2. understand conditions
3. compare scenarios
4. identify next investigation

Direct: understanding + comparisc
Test: behaviour + downstream outco



The smart work is verified integration

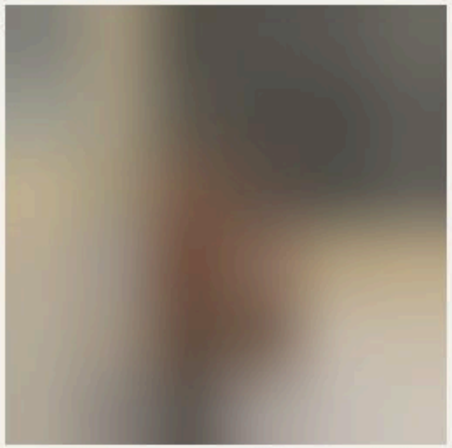
NEEDED

- GIS + data services
- parcel intersections
- machine-readable rules
- deterministic checks
- parametric scenarios

NOT THE HEADLINE

- × generative AI
- × ‘digital twin’ branding
- × automated consent
- × optimal-development score

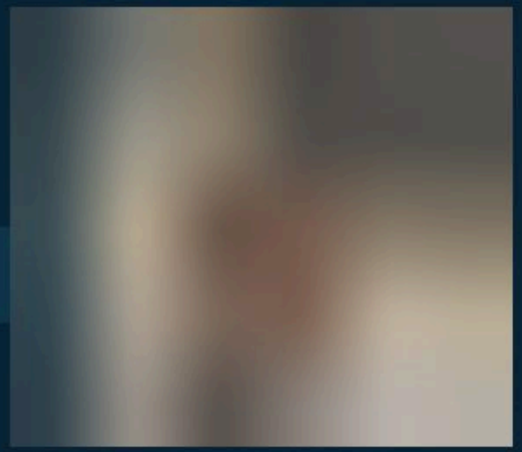
Maintain · explain · verify



Every major risk has a visible control.

RISK		CONTROL
Stale or incorrect rule	→	version source + release gate
False hazard reassurance	→	uncertainty beside result
Hidden qualitative judgement	→	no compliance or design score
Digital exclusion	→	assisted + printable pathway

Visible correction path · professional review remains



Expand only after public value is demonstrated.

1 scope — 2 verify — 3 test — 4 decide

MEASURE

1 **understanding**
Can people explain what applies?

2 **accuracy**
Are severe rule errors prevented?

3 **equitable escalation**
Do users know when help is needed?

SDG 9, 10 & 11

Make Auckland’s planning evidence usable at the scale where decisions begin.

