

iQhaza Lethu –
Incremental Upgrading Partnership Programme in
eThekweni

ALTERNATIVE SERVICING APPROACH FOR DENSE
B1 SETTLEMENTS
– SERVICES FRAME

Nov 2020



iQhaza Lethu – Main objectives

- **CAPACITY:** Develop and mobilise new capacity and strengthened upgrading partnerships. Strengthen institutional arrangements (transversal coordination and IGR).
- **PROGRAMME:** Develop improved upgrading programme systems and processes including establishing: stronger consensus on the incremental approach; enabling legal, statutory and regulatory flexibility; better funding instruments.
- **PILOTS:** Undertake 10 incremental upgrading pilot projects in order to operationalise a stronger incremental approach – includes participative planning, enumeration, technical studies, upgrading plans.
- **LEARNING:** Evaluate, refine partnerships, methods, systems and policies and disseminate learning for upscaling and mainstreaming.
- **SCALING UP:** Lay the platform for scaling up and speeding up incremental upgrading and producing better upgrading outcomes.

**WHY DO WE NEED A NEW
UPGRADING APPROACH?**

**...WHY DOES IT MATTER?
....AND WHAT IS IT?**

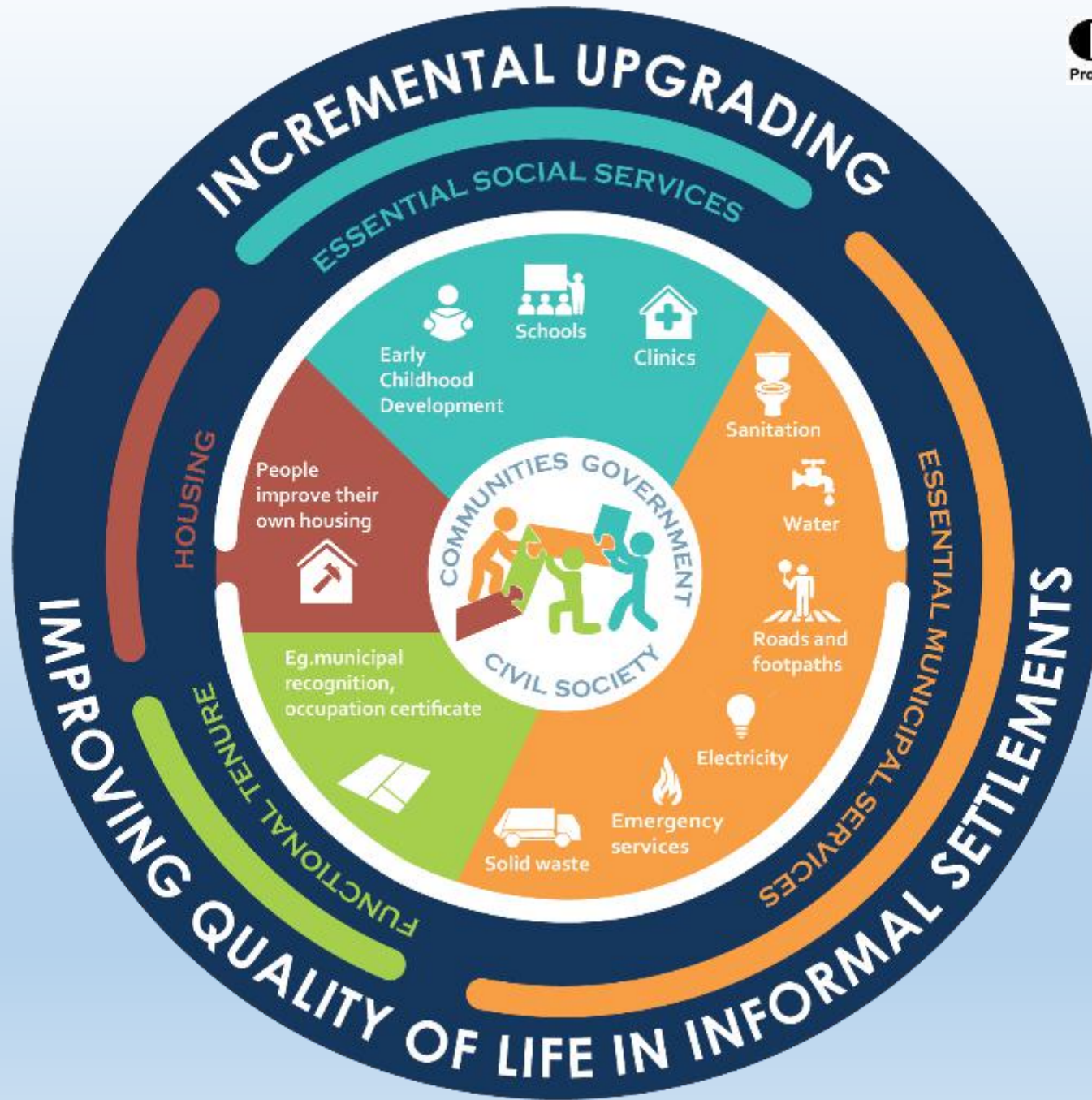
National Upgrading Context



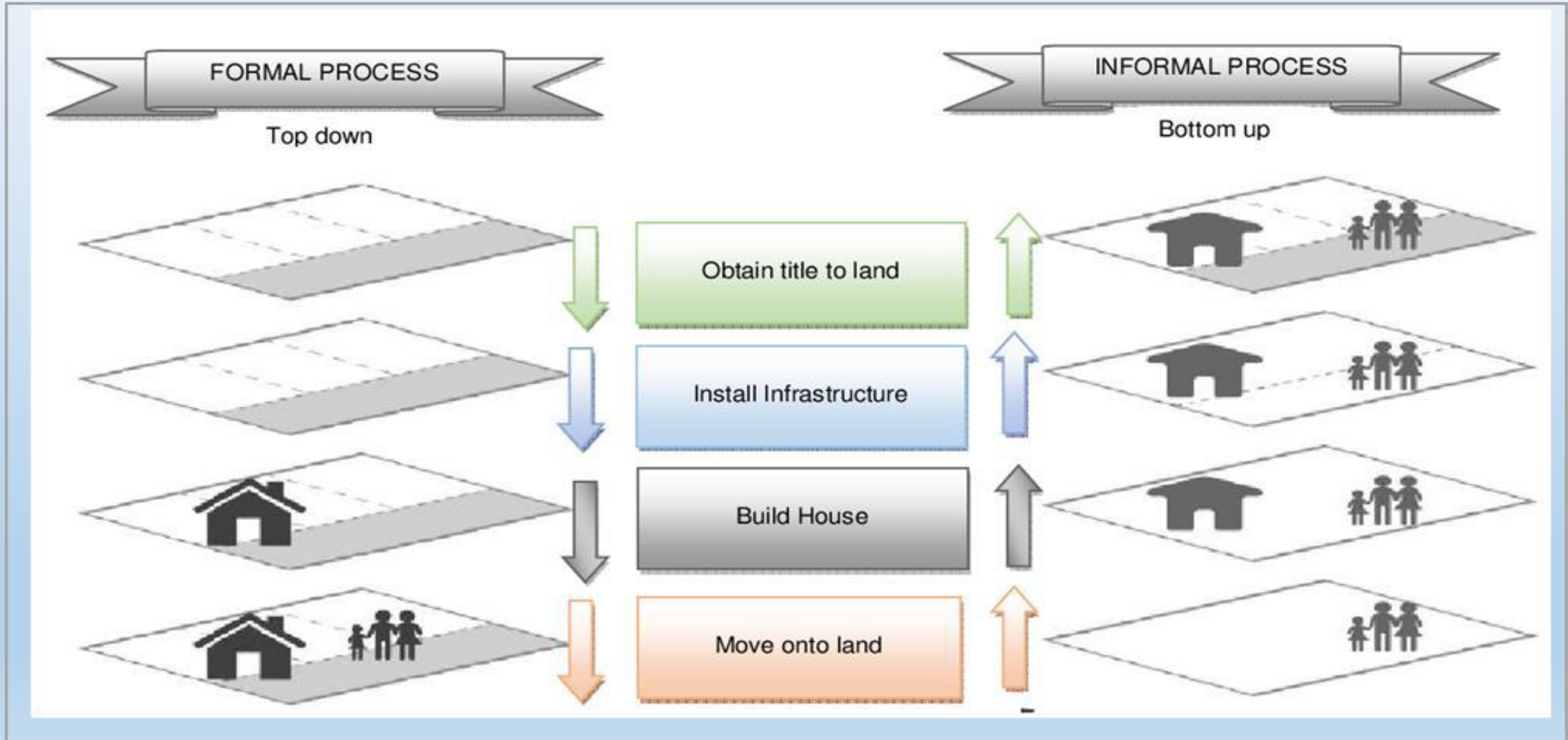
- **Large informal settlement housing backlogs persist despite significant RPD-type housing delivery:**
 - At least 1.2m households
 - 11.7% of households in Metros live in informal settlements (>72,000hh)
 - 2,700 informal settlements in SA – increased from 300 in 1994
- **Consensus over the shift to in-situ, incremental upgrading at scale BUT slow traction** - as per UISP Policy, NUSP, Outcome 8 and DHS Medium Term Exp. Framework (MSTF) which sets target of providing basic services to 750,000 IS hh. by 2019 and upgrading 447,780hh (cumulative since 2010)
- **Conventional upgrading premised on formalisation & regularisation is insufficient** in addressing the national informal settlement challenge due to:
 - Timeframes
 - Budget
 - Capacity
 - Many non-qualifying households

Comparative Metro Data (CSP Update 2017)

	2017 update (with Metro data)	
	Informal dwellings	settlements
eThekwini	238 000	569
Tshwane	184 019	178
Cape Town	162 428	232
Ekurhuleni	156 594	114
Johannesburg	125 506	181
Buffalo City	46 079	288
Mangaung	36 902	34
Nelson Mandela	32 298	42
	981 826	1 638



Formal vs informal processes



National I.S. Categorisation Framework



1) FULL CONVENTIONAL UPGRADE (category 'A'):

- a. *Developmental pathway*: **Rapid formalisation consisting of full services, formal housing and formal tenure** (e.g. title deeds), requiring prior land acquisition and formal town planning and environmental approvals.
- b. *Rationale*: 1) Site is viable (developable) and appropriate for purposes of formalisation AND 2) project is implementation-ready (full upgrading can commence rapidly - land is secured, feasibilities complete, plans approved etc.) AND 3) formalisation is appropriate and will not result in significant adverse consequences (e.g. significant partial relocations or other livelihood impacts).

2) INCREMENTAL UPGRADE WITH ESSENTIAL SERVICES (category 'B1'):

- a. *Developmental pathway*: **Provision of essential services and other incremental upgrading arrangements leading over time either to eventual formalisation or other permanent 'less formal' settlement solutions.**
- b. *Rationale*: 1) Site is viable and appropriate for purposes of permanent settlement AND 2) project is NOT implementation-ready for formalisation (there will be delays due to such factors as land acquisition, de-densification or bulk services provision).

3) DEFERRED RELOCATION WITH EMERGENCY SERVICES (category 'B2'):

- a. *Developmental pathway*: **Provision of emergency basic services but NOT leading to eventual formalisation – more likely leading to eventual relocation** (when and if a suitable relocation site is obtained and developed).
- b. *Rationale*: 1) Site is NOT viable or appropriate for purposes of formalisation or permanent settlement BUT 2) there is NO urgent need for relocation (absence of serious health and safety threats which cannot be mitigated in the short-term through basic services provision).

4) IMMEDIATE RELOCATION (category 'C'):

- a. *Developmental pathway*: **Rapid relocation to a site which is already or imminently ready and available.**
- b. *Rationale*: 1) Site is NOT viable or appropriate for purposes of permanent settlement or formalisation AND 2) there is an urgent need for relocation due to serious health and safety threats which cannot be adequately mitigated in the short-term through basic services provision AND 3) an appropriate relocations destination is currently or imminently ready and available.

Types of Incremental Upgrading Responses – ‘Modes’

- 1. Conventional incremental upgrade moving towards formalisation** (as UISP policy envisaged): interim services can form part of an eventual formal township with each household receiving services connections, formal housing, title deed. Viable in lower density B1 settlements (permanent settlements to be incrementally upgraded in-situ) where there is space for services lanes.
- 2. Alternative incremental upgrade initially with shared services:** Initially many services are shared (e.g. communal ablutions, wash points etc.) although individual connections are possible for electricity. Initially only the main services ‘frame’ (access ways) are established. This establishes the potential for the ‘inter-blocks’ to be consolidated over time either formally and with state funding or else through owner-driven consolidation (improvements) along with individual household connections. The likely eventual permanent solution will be a substantially pedestrianised layout with alternative, low cost double story housing solutions. This ‘mode’ is necessary for most dense B1 settlements especially where there are too many to be de-densified through relocations as is the case in eThekweni.
- 3. Basic mitigations only to address health and safety threats:** This approach will be appropriate for B2 settlements (deferred relocations) and in some instances B1 settlements where the sites are particularly challenging or there are local community dynamics which make a more substantial upgrading response difficult. Initially only essential health and safety mitigations are provided e.g. communal ablutions and standpipes. In some cases individual electrical connections may be appropriate where illegal connections constitute a severe threat and there will be significant delays with relocation.

What's the situation in eThekweni?
...and what has the City been doing?

Housing Backlogs (as at 1/7/2016)

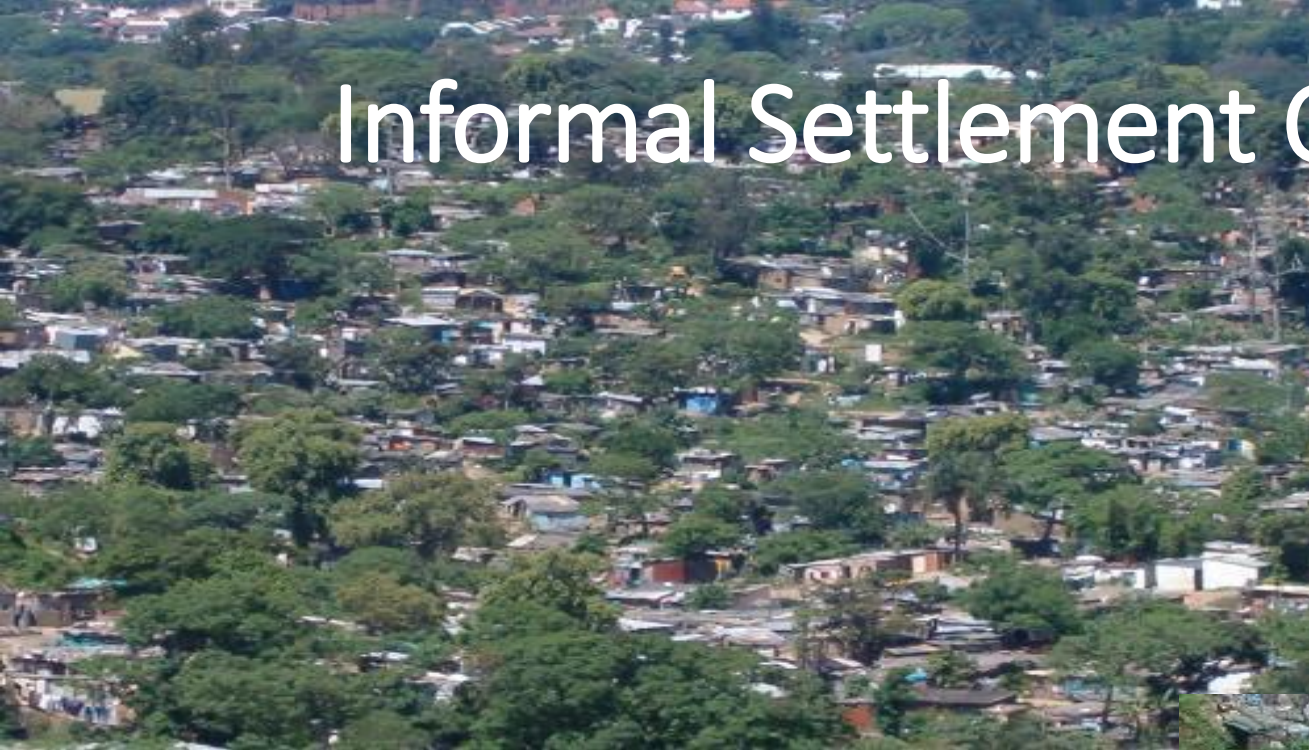


- **Informal settlements:** **240,000 hh.**
- Backyard shacks: 49,000 hh.
- Traditional dwellings: 96,000 hh.
- **Estimated Total:** **385,000 hh.**
- Total backlog = 1.5m people = approx. 40% of total Municipal population of 3.8m (assuming a household size of 3.9 people)
- **Informal backlog = 24% of Municipal population**
- Informal backlog = 62% of total housing backlog

Informal Settlements in eThekweni by Category (developmental trajectory)

NUSP CATEGORY	NO. OF SETTLEMENTS	EST. NO. STRUCTURES
A (Full conventional upgrade i.e. housing project)	66	29,000
B1 (Incremental upgrade with essential services)	340	180,000
B2 (Deferred relocation with emergency services)	118	24,000
C (Imminent relocation)	27	6,000
Under investigation	10	1,000
	561	240,000

Informal Settlement Context eThekweni



Why the Incremental Services Programme / Incremental Approach?

- A realisation of the **limitations of conventional, formalisation approach to upgrading** (RDP-type or densified housing delivery) - cannot (on its own) address the informal settlement 'backlog' in the City.
- The **majority of settlements remain outside of the housing programme** due to factors such as funding constraints, the inherently slow process for formal housing delivery, site constraints, land acquisition difficulties, bulk services deficits, and high informal settlement densities resulting in large scale relocations when formal upgrading is undertaken.
- **Provision of essential services and other settlement improvements far quicker and less costly to deliver** the number of households can be reached with an equivalent budget (6-10 times the population coverage for equivalent investment).

Incremental Services Programme (ISP) Historical Approach

- **Municipal services:**
 - Water supply - standpipes & via communal ablutions
 - Communal ablutions - sanitation blocks (1 for each 75hh)
 - Solid waste removal
 - Basic access – roads, footpaths, storm-water controls
 - Electricity (to shacks) - pre-paid
 - Solid waste removal
 - Fire protection
- **Tenure** – Tenure security improved via administrative recognition of settlements - right to occupy is recognised, resulting in safety from eviction and the right to benefit in the incremental upgrading process.
- **Land** - not acquired up front – not a pre-requisite, this unblocks and enables rapid delivery, land acquisition is slow & costly - addressed later.
- **Livelihoods and economy** – via parallel programmes e.g. Informal Economy Support Programme
- **Social services access** – via parallel programmes e.g. ECD support programme

How can we do better?

...optimised incremental upgrading
approach for dense, permanent, well
located settlements

Main areas of optimisation required

1. **Optimised servicing approach for dense B1 settlements.**
2. **New incremental land rights and planning arrangements.**
3. **Prioritisation criteria for more effective resource prioritisation and pipeline planning**
4. **Improved procurement / SCM solutions**
5. **Strengthened capacity and institutional arrangements** (including improved transversal coordination & IGR, additional dedicated in-house capacity, NGO partnerships)
6. **Strengthened and sustained community participation** – linked to the above
7. **Sufficient planning lead-in for participative planning and technical design work for new USDG in UISP window**

Alternative servicing approach for dense B1 settlements - why is an alternative approach needed?

- **Significant numbers of these settlements**
- **High level of vulnerabilities** - typically the most vulnerable e.g. fire, disease, overcrowding, squalid living conditions.
- **Most are old, well established and in prime locations** (work, social services).
- **Incremental services approach currently 'reactive'** – CABS on edges, minimal footpaths on existing alignments, no reworking of space, limited/no internal water and sanitation.
- **Conventional upgrading not possible** due to densities, non-qualifiers, lack of alternative land, steep slopes, geotech., costs and other factors
- **Settlements are developmentally 'locked'** UNLESS there is an alternative approach

Example: Parkington

Current approach – Mainly External Infrastructure
No relocation



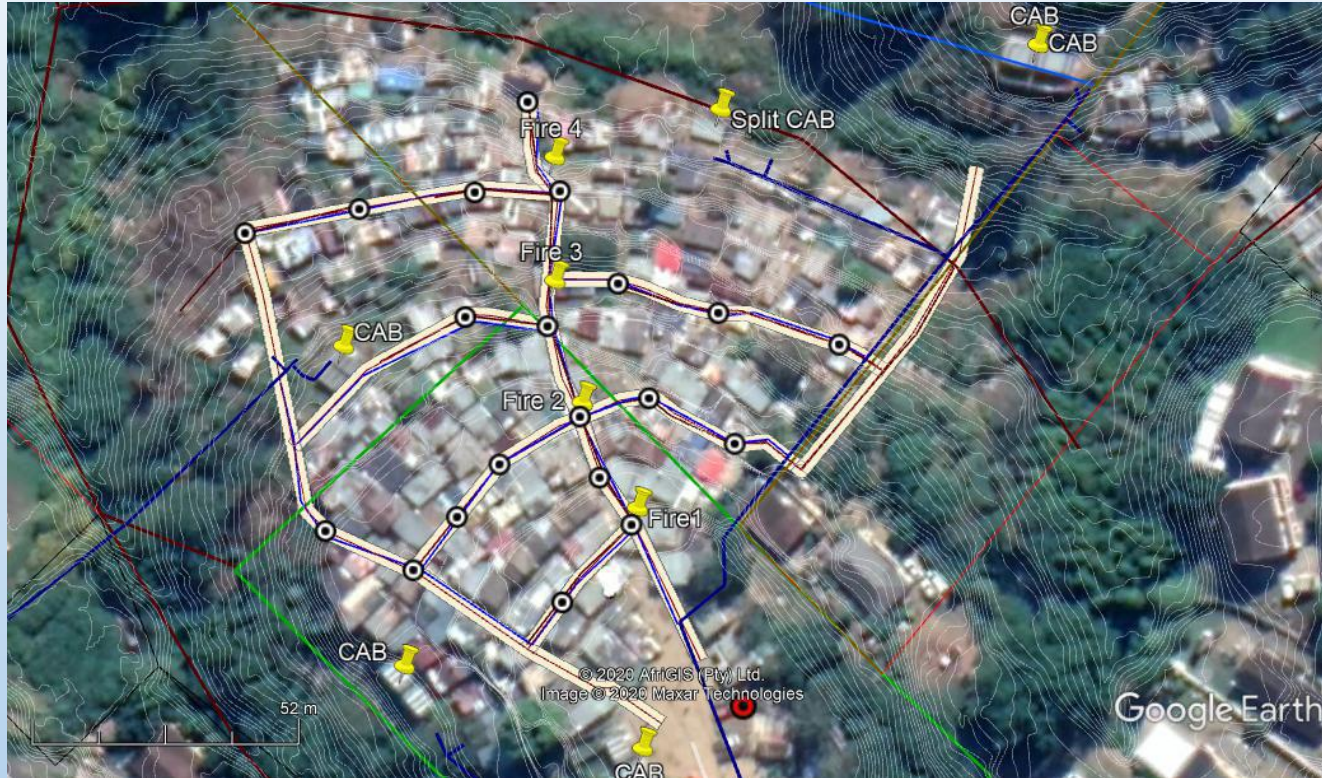
What does the revised approach consist of?

- Main priority is to **establish the main services access ways (main 'frame')** which breaks the settlement up into more manageable 'blocks' and brings essential services into the settlement, instead of them being located at the edges.
- **Limited re-blocking, relocations and reworking of space sufficient** to establish the frame
- **Consolidation of intra -blocks occurs as a later phase** (including housing improvements and possible individual connections).

Envisaged Phases of Incremental Upgrading in dense B1 settlements

1. **Step 1 – Current interim services** – external communal ablutions, solid waste, water, limited internal access ways, electricity
2. **Step 2- Establish main service ways** – the “frame” – which brings services into the settlements, improves access and establishes a platform for alter consolidation of the intra-blocks
3. **Step 3 – Longer term consolidation** – Organic or supported -Intra block layouts/ reblocking where needed- housing consolidation with services connections.

Optimised servicing: Services Frame for dense, well-located, B1 upgrades



- **Significant numbers of these settlements with severe vulnerabilities. Conventional (formal) upgrading not possible** due to densities, non-qualifiers, lack of alternative land, steep slopes, geotech., costs and other factors.
- **Optimised approach is therefore the establishment of main service access ways within the settlement with:**
 - Communal ablutions and wash facilities
 - Fire hose points
 - Solid waste bins
 - Footpaths and storm-water controls
 - Electricity.
- **Limited re-blocking and relocations required to liberate the required space.**
- **Establishes a more functional urban form for future consolidation and improvement, including owner-driven housing improvements.**



Frame Infrastructure at block level

© 2020 AffiGIS (Pty) Ltd.
Image © 2020 Maxar Technologies

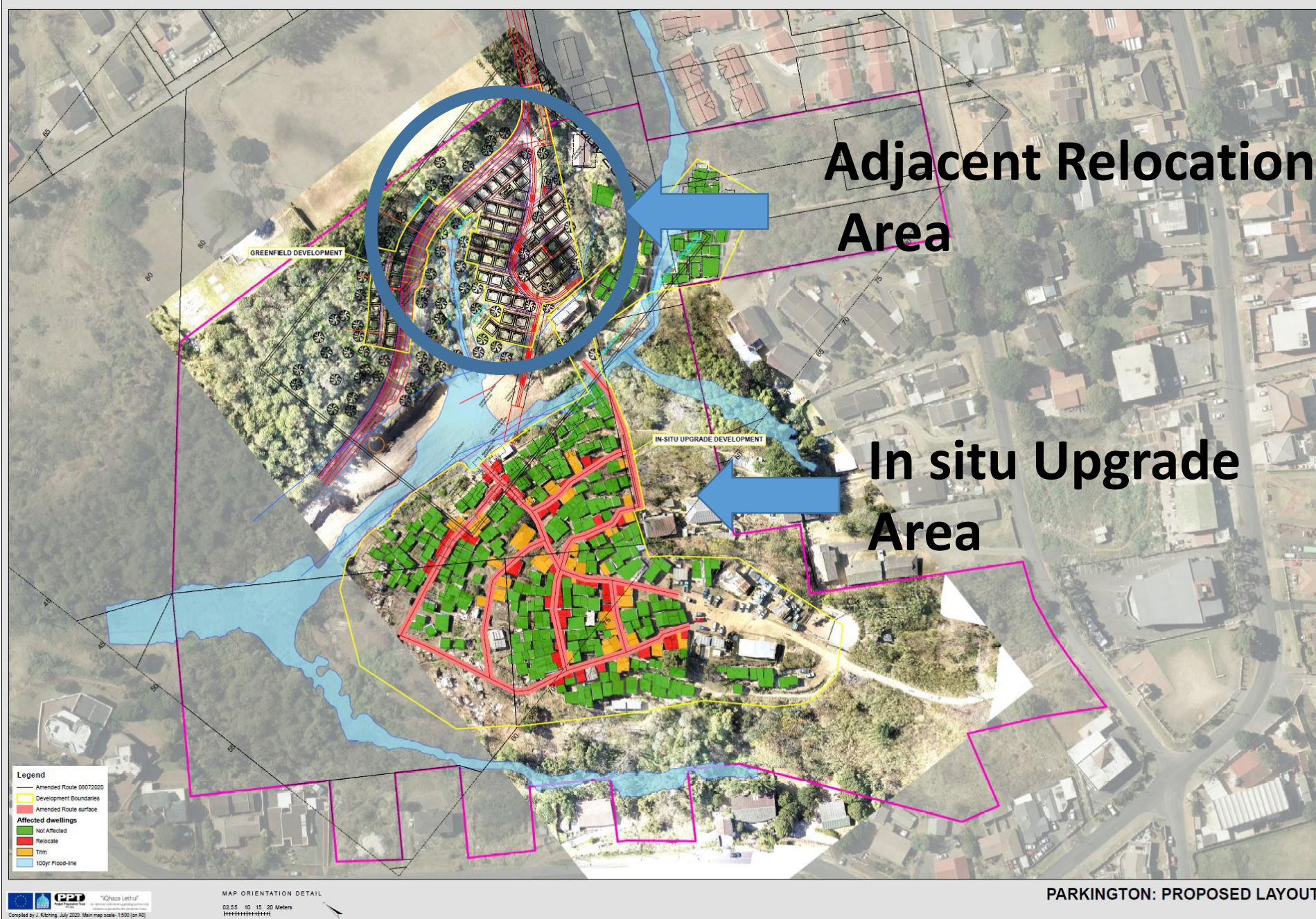
Google Earth

52 m



Relocations required = 56





Adjacent Relocation Area

In situ Upgrade Area

- Legend**
- Amended Route 08072020
 - ▭ Development Boundaries
 - ▭ Amended Route surface
 - Affected dwellings**
 - ▭ Not Affected
 - ▭ Relocate
 - ▭ Trim
 - ▭ 100yr Flood-line

Parkington,

informal settlement, eThekweni
municipality, Ward 34,
Incremental Upgrading Service
Upgrading **Concept Plan**



"iQhaza Lethu"

*An informal settlement upgrading
partnership initiative co-funded by
the European Union*

Proposed upgraded services

Roads	
Footpaths	
Lighting	
Water pipes	
Sewer pipes	
Water hose points	
Standpipe Drainage Facility	
Existing Sewer pipes	
Existing communal ablutions	
Mini communal ablutions	
Solid Waste bins	
Solid Waste Containment area	
Bridge	
Project Boundary	
Fire Hydrant	

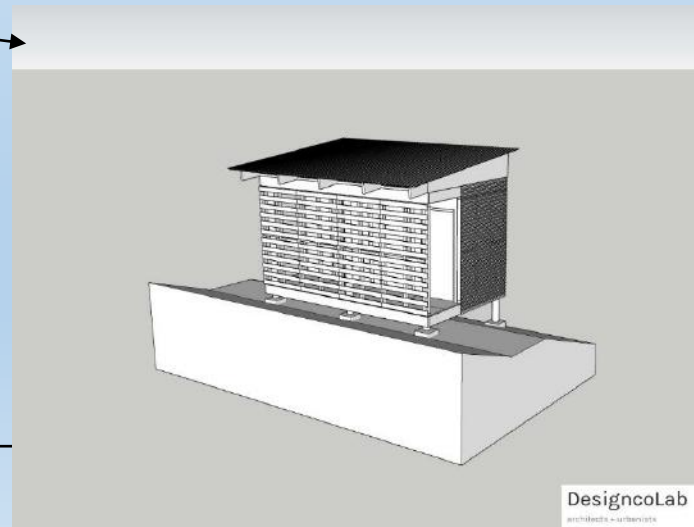
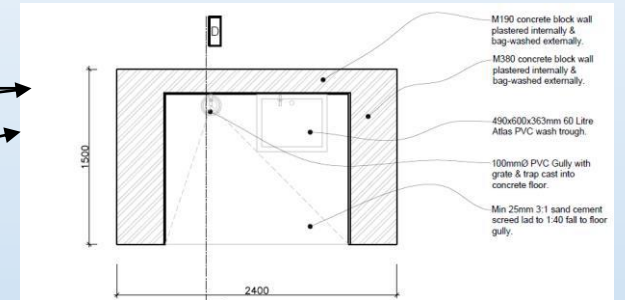


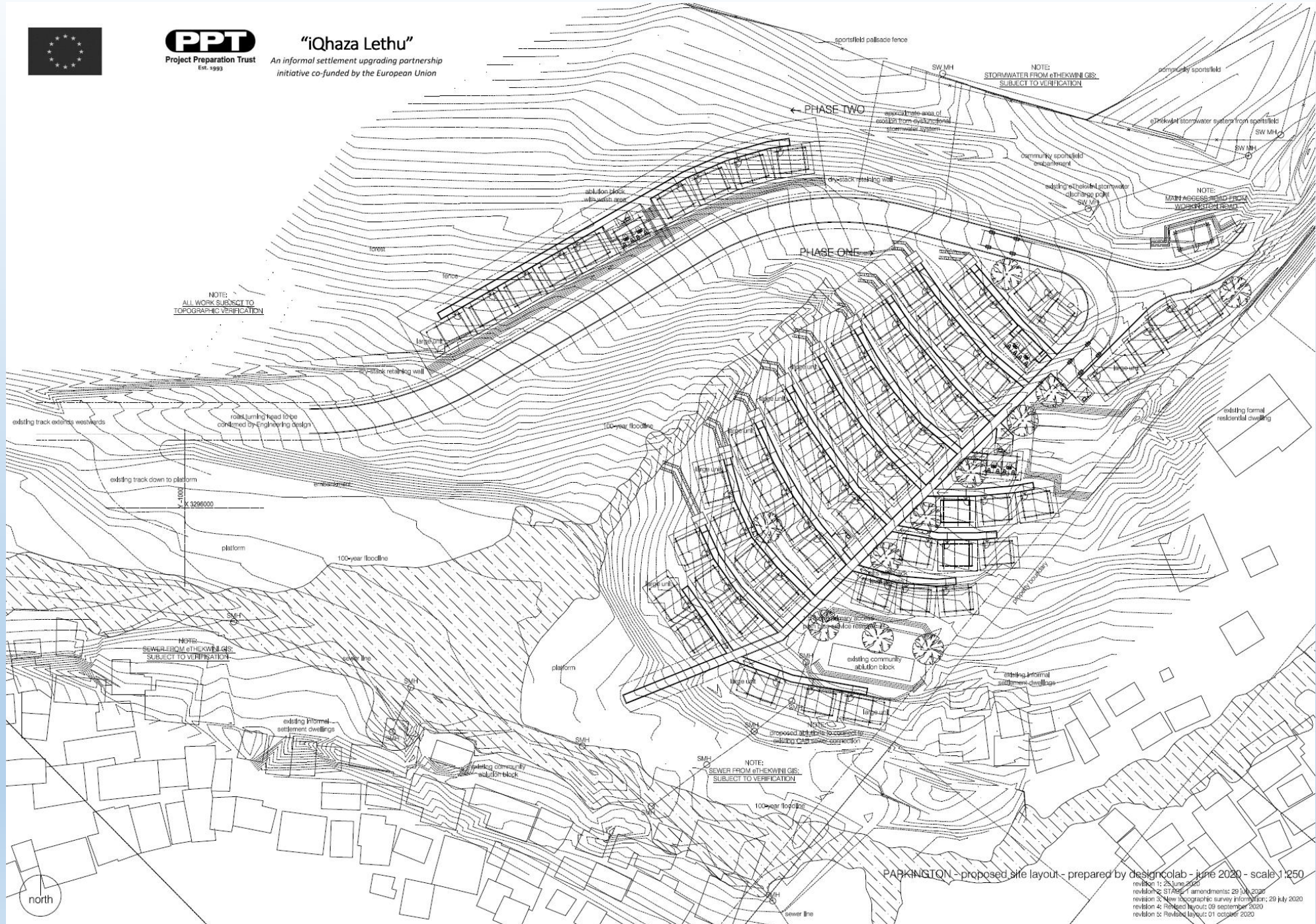
Date : February 2020
Drawn by : iQhaza lethu - team

100 m

Shared services which can be established inside the settlement – on selected intersections on the frame

- Standpipes with washing facility
- Greywater disposal points
- Solid waste containment and collection point
- Toilets
- Fire hose points





NOTE:
ALL WORK SUBJECT TO
TOPOGRAPHIC VERIFICATION

NOTE:
STORMWATER FROM eTHEKWINI GIS:
SUBJECT TO VERIFICATION

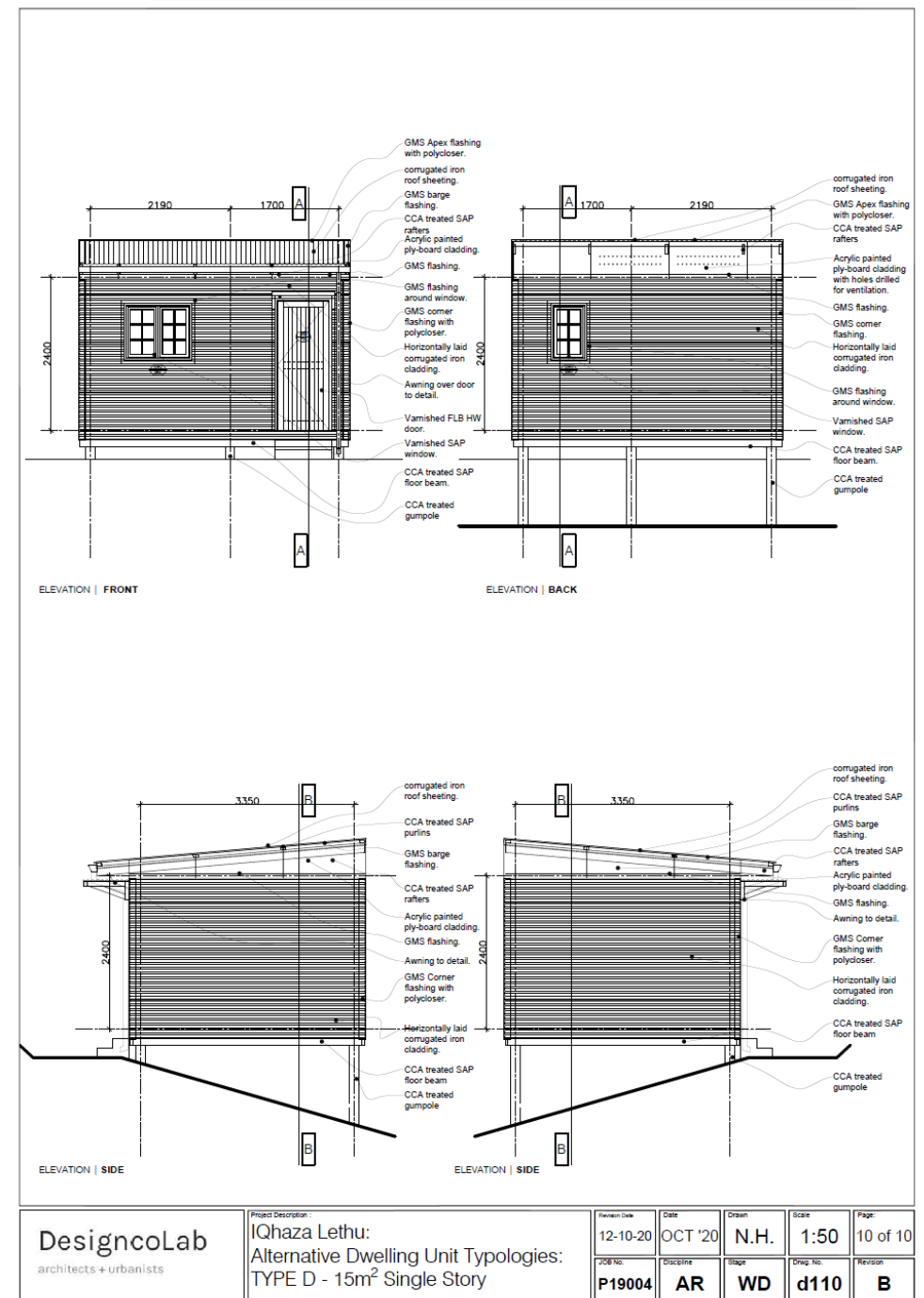
NOTE:
MAIN ACCESS ROAD FROM
WORKING ROAD

NOTE:
SEWER FROM eTHEKWINI GIS:
SUBJECT TO VERIFICATION

NOTE:
SEWER FROM eTHEKWINI GIS:
SUBJECT TO VERIFICATION

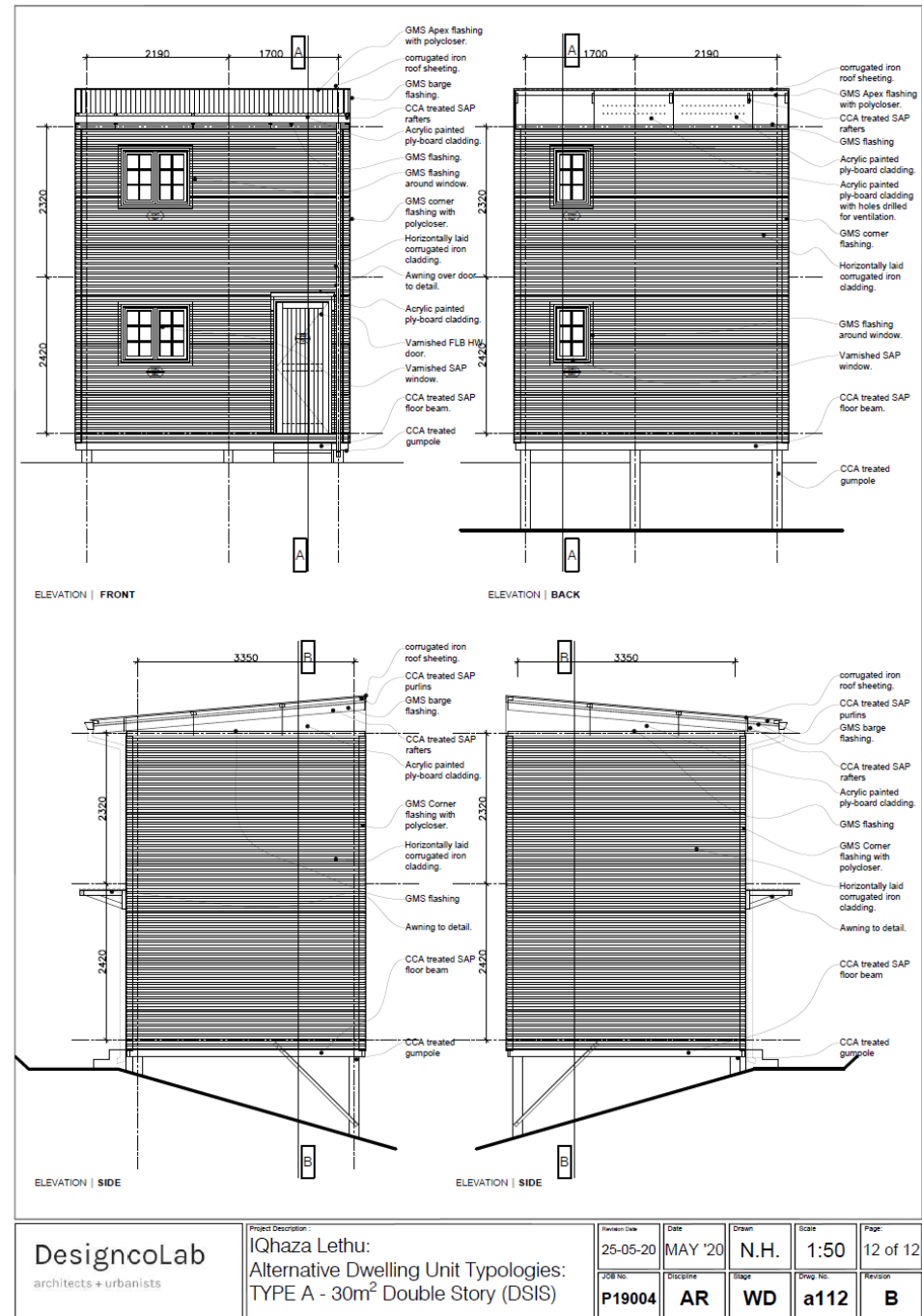
Relocation Dwellings Type D - 15m² single

NOTE : Designed so another storey can be added



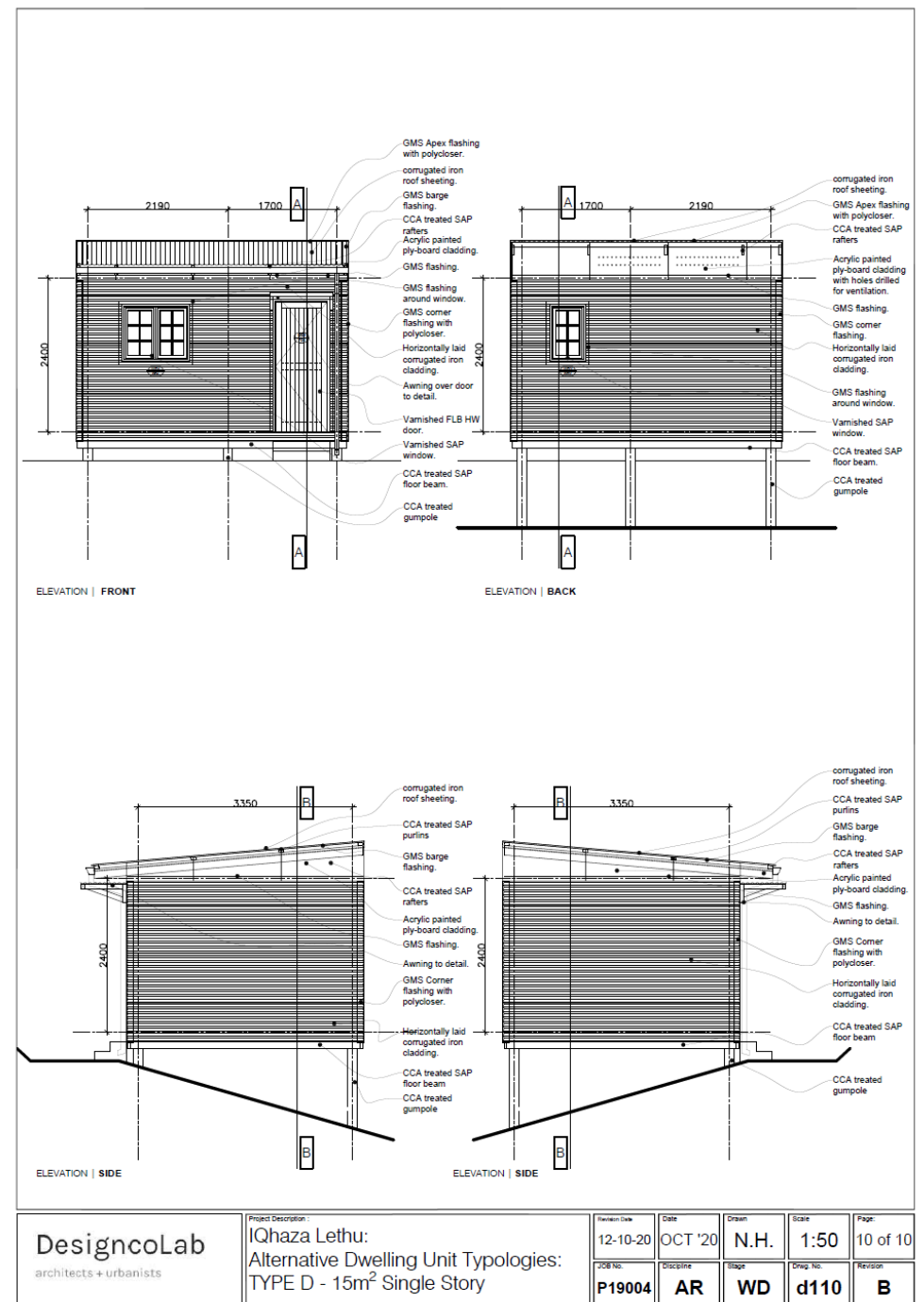
Relocation Dwellings Type A 30m² Double

Add pics of the demo unit at Parkington



Relocation Dwellings

Type G - 44m² Double Storey



What does the future look like?

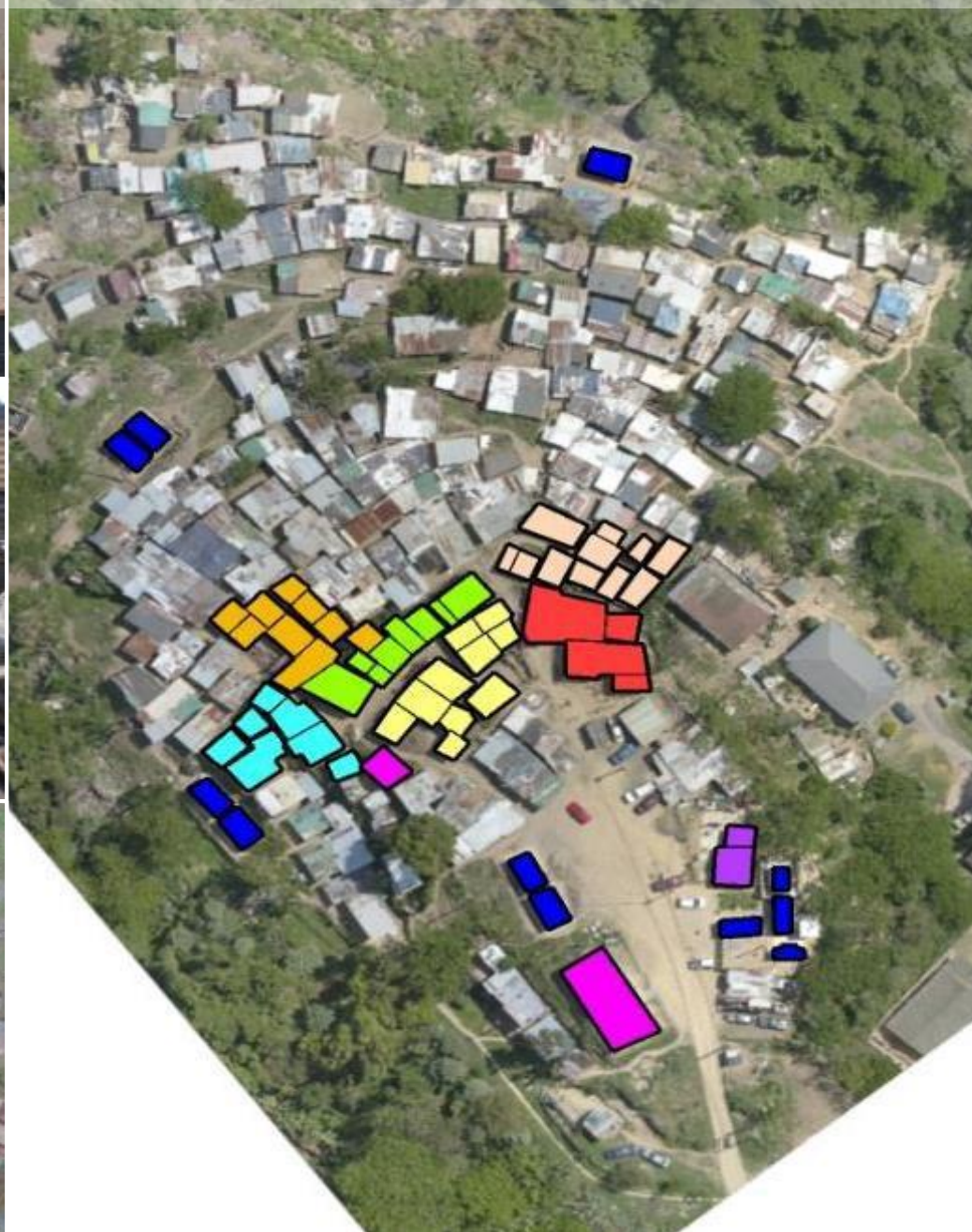
...alternative housing typologies and
owner-driven consolidation

Alternative low-cost double story concept designs for PHP-type upgrading – 36m² unit -



Lightweight low-cost structure appropriate for dense in-situ upgrades on steep slopes (including re-blocking); fire retardant and able to cope with variable geotechnical conditions and prevents waterlogging; limited to no site works required; fire-retardant structure built on stilts/piles to avoid slope destabilization; uses materials that local people can build with; 18m² foot print - 3.3m x 5.5m; total living space of 36 m²; treated wood pole frame clad with IBR; can be upgraded with internal cladding and insulation for improved thermal performance; fire retardant suspended floors (e.g. Besta Board); kitchen/living area downstairs & sleeping quarters upstairs; designed to work with a decentralized sanitation solution (e.g. shared toilet for every 2 units); internal hand basin and electrical reticulation. The structure is suitable for a one big family, since the sleeping quarters can be divided into 2 bedrooms.

Community mapping of shacks affected.





Take home points

- **Formalisation** - is not the main objective / priority
- **In-situ** - Upgrade in situ where possible
- **Essential services** - Prioritise provision of essential services – as comprehensively as possible (public realm investment)
- **Land** - Don't wait to acquire the land first
- **Services frame** - Establish the services 'frame' (access ways) as early as possible (before densities become too great)
- **Grant instruments** – need to be decentralised, flexible and programmatic
- **Tenure** – functional tenure must initially suffice (non-individual recognition, potentially a municipal certificate – title deeds not viable)