CORRIDORS OF FREEDOM – TOD APPROACH
Global Platform for Sustainable Cities – Singapore 9 March 2016
Herman Pienaar: Director City Transformation and Spatial Planning
Global & Regional Context

From 4.6 million now to 7 million inhabitants by 2040
- 1.4 million in poverty in JHB (1/3 of population)
- High unemployment rate of 25%

Residential density is 2,700 people/km² on average, with significant spatial heterogeneities
“Over the decade we will introduce transport corridors connecting strategic nodes through an affordable and accessible mass public transit that includes both bus and passenger rail. Along these corridors we will locate mixed income housing, schools, offices, community facilities, cultural centres, parks, public squares, clinics and libraries.”
Joburg Structure: Inverted Polycentric Model

Urban inefficiency = high carbon emissions
Opportunities to create low carbon restructuring zones:

- Modal Density
- Job Density
- Social Density
- Residential Density
Key spatial transformation areas

1. Positioning the inner city as the core
2. Consolidating public transport backbone
3. Reinvestment in Under-performing Areas
4. Unlocking the mining belt
5. Connecting the aerotropolis
Priority Development Areas and Integration Zones

Emerging Framework Concept

- BRT/ITN Corridors
- Randburg/Airport Corridor
- Urban Nodal Areas
- Inner City/Metropolitan Core
- Public Transport Backbone
- Opportunity Area (Modderfontein)
- Opportunity Area (Mining Belt)
- Consolidation Zone
- Industrial Nodes
- Areas Beyond UDB
- (Re)Urbanisation, Diversification, Economic Development

Regional TOD Nodes (Gauteng):
- 
Regional TOD Nodes (PRASA):
- Local TOD Nodes (Rea Vaya):

Empire-Perth

Soweto

Turffontein

Louis Botha
Densification for Urban Efficiency and Value Increase

Empire Perth Corridor

Louis Botha Corridor

Turffontein Corridor

**COMBINE**

- Transport (modal) density
- Public (social) density
- Economic (job) density
- Residential (people) density

**CREATE**

Quality urban environments = Sustainability with increased social and economic value
DEVELOPMENT PROCESS RATHER THAN A PLAN

PLANNING

CAPITAL INVESTMENT

DEVELOPMENT FACILITATION

OPERATIONAL & URBAN MANAGEMENT
APPROACH AND METHODOLOGY
CORRIDORS OF FREEDOM
• Significant reduction in carbon emissions
• NMT system
• Short distance fleet – last mile
• Complete streets - New standards required
Walkability Analysis

Spatial influenced effected by a range of factors, including erf size, intersection density, street configuration, etc.
Economic Transformation

Empire Perth Corridor

Breaking market monopolies and improving access to economic opportunities

- Supply chain monopolies
- Access to capital
- Accommodating informality (second economy)

Stimulate new economic clustering and innovation

- Bring factors of production and innovation together in high efficiency hubs
- Broker the deal between land owners, developers, business and industry – Special purpose vehicle

Spatial response

- Create urban efficiencies and quality public environments
- Division of land and design principles
- No shopping centres?
Social Transformation

Empire Perth Corridor

- Quality public spaces – A prerequisite for social cohesion
  - Activation of spaces
  - Efficiency of social facilities
  - New standards required in response to high density environments
    - High Density Schools
    - Sharing of facilities – Sport, Libraries
    - Clustering of services and amenities
    - Operational service levels
- Inclusive design – Safety and universal access
- Inclusive housing options

Key Social Clusters

- Westbury
- Westdene Dam
- Peter Roos
- Pennyville
- Noordgesig
Densification

Empire Perth Corridor

- Along BRT and Proposed complementary route
- Inclusionary housing requirements

0 - 100
101 - 160
161 - 250
How Will Densification Occur

1. CURRENT RIGHTS / ZONING
   - residential 1
   - residential 4

2. CURRENT DENSITY
   - average stand size = 495m²

3. SECOND DWELLINGS
   - attached and detached

4. SUBDIVISION & NEW DWELLINGS
   - increased bulk rights

5. SUBDIVISION & REDEVELOPMENT
   - higher density

6. HIGHER DENSITY INFILL
   - higher density

7. CONSOLIDATION & PARTIAL REDEVELOPMENT
   - higher density

8. CONSOLIDATION & REDEVELOPMENT
   - existing structures demolished
PRIVATE SECTOR SUPPLY
How Could Densification Occur

STAND AREA = 906m²
ZONING = RESIDENTIAL 4

GROUND FLOOR AREA = 415m²
COVERAGE = 45%

BUILDING AREA = 1660m²
4 STOREYS
32 UNITS - 8 UNITS PER STOREY
25m² BACHELOR UNITS
RENTAL - R 3000.00 / month (inclusive)
BUILD RATE: R 5 641.00 / m²
ESTIMATED VALUE: R 4 682 030.00
A Framework For Intervention

Empire Perth Corridor
Empire-Perth – Detailed Planning

- Westbury
- Westdene Dam
- Heritage Study
- Stormwater Masterplan
- Milpark Node
- Brixton Social Cluster
- Corridor Planning
IMPLEMENT THE VISION

CAPITAL INVESTMENT
Backbone Infrastructure

Public Transport Networks

NMT Networks

Power

Water and Sewer
Legend
- City Parks and Zoo
- City Power
- JRA
- JW: Water
- JW: Sewer
- Sports and Recreation
- Arts, Culture and Heritage
- Libraries
- Com. Dev. Head Office
- Transport and Metrobus
- Public Safety: EMS
- Public Safety: JMPD
- JOSHCO
- Housing
- Pikitup
- Social Development
- Health
- JDA

Scale 1:315,000
Filtered on “In-Scenario”
CORRIDORS OF FREEDOM
Empire Perth Corridor

MTEF Projects
Area Based Focus

- Paterson Park
- New Social Housing
- Relocation of Depots
- Core Park
- Northern Park
- Sports facilities
- New Library
- Pedestrian crossing and complete street upgrade
- Recreation Centre Upgraded by June 15

Upgraded by June 15
Policy, investment and incentives

Create Policy and Regulatory Framework:
- Create regulatory framework and standards
- Identify and manage processes of collaboration

Incentives:
- Rates policy
- Fast-tracking mechanisms (approvals; infrastructure)
Strategy Facilitation

DEVELOPMENT FACILITATION

OPERATIONAL & URBAN MANAGEMENT
Building Partnerships

Engaging with our local citizens

Partnering with International agencies

Facilitating Private Sector Development

Urban Morphology & Complex Systems Institute

C40 Cities Climate Leadership Group

UNEP

GEF

UN-Habitat

AFD

The World Bank

StandOut Properties
Bramley

Alex City Development

SAPOA
TOD - Transforming our City