Australia’s Major New TOD Urban Growth Corridors

Evan Jones
Brookfield Multiplex
Chair Australian Council for New Urbanism

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The Views Expressed are solely those of the Author
Making livable communities that work

The **structuring** of Regional Growth Corridors is key to **reducing carbon** and other footprints:

- Developing **more compactly** - at higher residential and employment densities reduces vehicle kilometres travelled

- **Mixing land uses** to bring housing closer to jobs and shopping can reduce trip lengths as well

- **Shorter trips** reduces VKT by making walking and cycling more competitive alternatives to the automobile, while higher densities make it easier to support public transit
Sustainable Growth Management Model

CONVENTIONAL (Sprawl)

Still in many Local Government Codes

Green and grey initiatives: water, energy, natural resources, materials, waste
Part 1

Australian Urban Models:

Perth, Melbourne, Brisbane
Australian Urban Models: Case Study # 1. Perth How Suburbs Work - Self-Sufficiency

Conventional/sprawl Suburbs

Traditional ‘grid’ street Suburbs

North-West Corridor Perth

Use a litre of petrol to buy a litre of milk!

Perth Inner City/Central Suburbs

Buy a litre of milk within walking distance
Australian Urban Models: Case Study # 1. Perth How Suburbs Work - Diversity

Hillarys – Land use map

Subiaco – Land use map
Australian Urban Models: Case Study # 1. Perth How Suburbs Work - Self-Sufficiency

Not only is the notional catchment for **Hillarys** much larger, there is also a greater proportion of the area (shaded **red**) with **no proximity** to any centre at all.

This area is **highly car dependant** on the **Hillarys** regional centre.

The traditional **Subiaco** centre is smaller and supported by a cluster of neighbourhoods via direct transit connections.

**Subiaco** achieves much greater residential densities and **employment self-sufficiency**.
Mile grid (1.6km) with half-mile arterials (800m) and a smaller permeable street network, to minimise need for arterial and retail gigantism
Australian Urban Models: Case Study # 2. Melbourne Town and Neighbourhood Structure
Australian Urban Models: Case Study # 2. Melbourne

Town and Neighbourhood Structure
Hilly terrain inspires ridge roads and deforms the grid.
Part 2

Integrated Urban Structuring in Australia
Walkable Neighbourhoods cluster together to form mixed use Towns

The Australian Liveable Neighbourhoods structure:

- Mixed use town centre serves around 15,000 to 30,000 people
- Main-street retail
Detailing a Town Structure

- A cluster of neighbourhoods to support a town centre
- Locating and sizing centres on the movement economy
- Uses compatibly mixed in close proximity
- Defining transit routes
- Protecting heritage & environmental assets
Neighbourhood Centres
Key Success Factors

Part of a larger supportive urban structure with an effective ‘pedshed’ to the centre

Strand Neighborhood Center, Melbourne, now operating
Highly-planned ‘sprawl’ in ever-extending corridors - an urgent need to change as road networks would fail.
Regional Structuring Examples:
Jindalee Regional Structure Scenarios

Scenario A
Rail along Freeway, on edge of urban corridor. National Park to east

Scenario B
Rail part way into urban corridor, along Connelly Drive

Scenario C
Preferred Rail in the centre of the urban corridor
Regional Structuring Examples: Jindalee Town and Neighbourhood Structure

**Testing by design** at the more detailed scale, then re-adjusting the regional structure as necessary.
Regional Structuring Examples:
Jindalee Town and Neighbourhood Structure
Improving Walkability to Centres

Liveable Neighbourhoods - centre pedsheds

Conventional - centre pedsheds
Measuring rail and bus catchments

Conventional – routes and catchments

Liveable Neighbourhoods - routes and catchments
Two main remaining large **Growth Areas** totaling 26,000ha in the Sydney Basin, population 380,000
Regional Structuring Examples: South West Sydney – Urban Structuring

Consolidate and enhance key viable habitat fragments, remove others. Investigate spacing and linking of Town Catchments. Green network generally located between towns, not between neighbourhoods.
South West Sydney Final Adopted Plan

Rail to Leppington - a new Regional Centre

Bus transit boulevards to five town centres.

Walkable neighbourhoods with local centres and bus routes on local arterials

Green network and heritage farms between towns

Retail complementary instead of predatory
Part 3

The New Urbanist Debate: Diagram Slap Down

Australian Council for New Urbanism
All Circles ≠ Town

Transit Corridor from Sustainable Urbanism, by Doug Farr

- Landscape scaled approach with habitat corridors between urbanism
- Only one city/town center
- Transit corridor **bypasses** neighborhood centers
- Remainder is **unstructured**
“It is no coincidence that Clarence Perry retreated to the centre, in a relatively isolationist, exclusive and defensive fashion, separating social institutions from the life of commerce which he kept on the edge. Oh, and by the way, he blew away Main Street in one fell swoop.”

Paul Murrain
Traditional Neighbourhood Structure

Perry is now interpreted through TND, with a cluster of four Perry Neighbourhood Units.

- Local retail internalised away from the movement economy and town centres artificially externalized

- Neighbourhood Centres are only a 400 metres from the Town Centre - too close to complement each other with neighbourhood centres usually failing
Relative performance: Public Transport

Routing Problem!

Heavy Rail with Feeder Buses
Relative Performance: Centres

4 neighborhoods

8-9 neighborhoods

Retail Performance: Twice the capacity
This network isolates neighbourhood centres from the Movement Economy and locates town centres without catchments.
Part 4

7 TAKE-AWAY MESSAGES
1. Plan for Context – Whatever the Project Scale
2. Avoid Squeezing Development Like ‘Toothpaste’ Between Constraints

This severely **compromises** ecological and urban outcomes

...the **worst of all** possible outcomes
3. Interconnected is not necessarily integrated urbanism

NC’s seem to be only parks in this plan, whose Movement Economy (main traffic flows) supports neither the NCs nor the Town Centre.
4. Words reduced diagrams – no indication of urban structure or intentions
5. All circles are **not** the same
6. Do not attempt this on your own!
7. Delivery – a dimension beyond urban design

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<th>NEW URBANISM</th>
<th>SUSTAINABLE GROWTH MANAGEMENT</th>
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<tr>
<td>(Sprawl)</td>
<td>(Project level)</td>
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<tr>
<td>![Sprawl Image]</td>
<td>![New Urbanism Image]</td>
<td>![Sustainable Growth Image]</td>
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<tr>
<td>Still in many Local Government Codes</td>
<td>New Urban and Transport Coding available</td>
<td>Right Model + Planning Regulation, Governance, Infrastructure &amp; Finance Mechanisms</td>
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Conclusions

- **Walkable Neighborhoods** are a fundamental component of sustainable urbanism, but how we structure them together will ultimately determine the effectiveness of The New Urbanism in Australia.

- We need
  - An **agreed Australian model**
  - Reliable methods for **large-scale implementation**
  - A **single** and **coherent message** for other sectors and professions