

Generators of Urbanity

A New Paradigm for Urban Street Design

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The 19th Century Paradigm of City Planning



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The Present Paradigm: The Functional Hierarchy of Urban Street Design

TIPO DI STRADA \ FUNZIONE	PRIMARIA	PRINCIPALE	SECONDARIA	LOCALE
transito, scorrimento	●	○		
distribuzione	○	●	○	
penetrazione		○	●	○
accesso			○	●

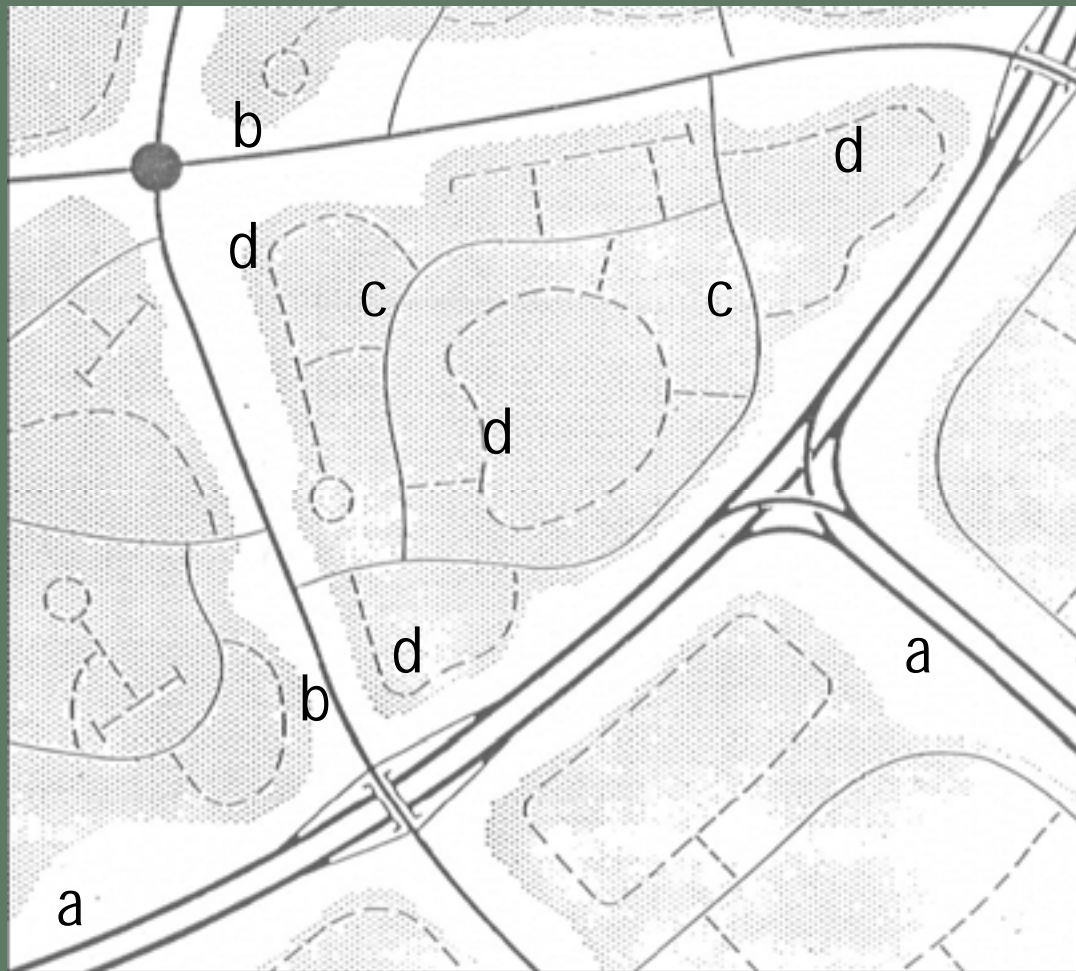
Ministero dei Lavori Pubblici, Norme Funzionali e Geometriche per la Costruzione delle Strade, 2001



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The Present Paradigm: The Spatial Expression of the Functional Hierarchy

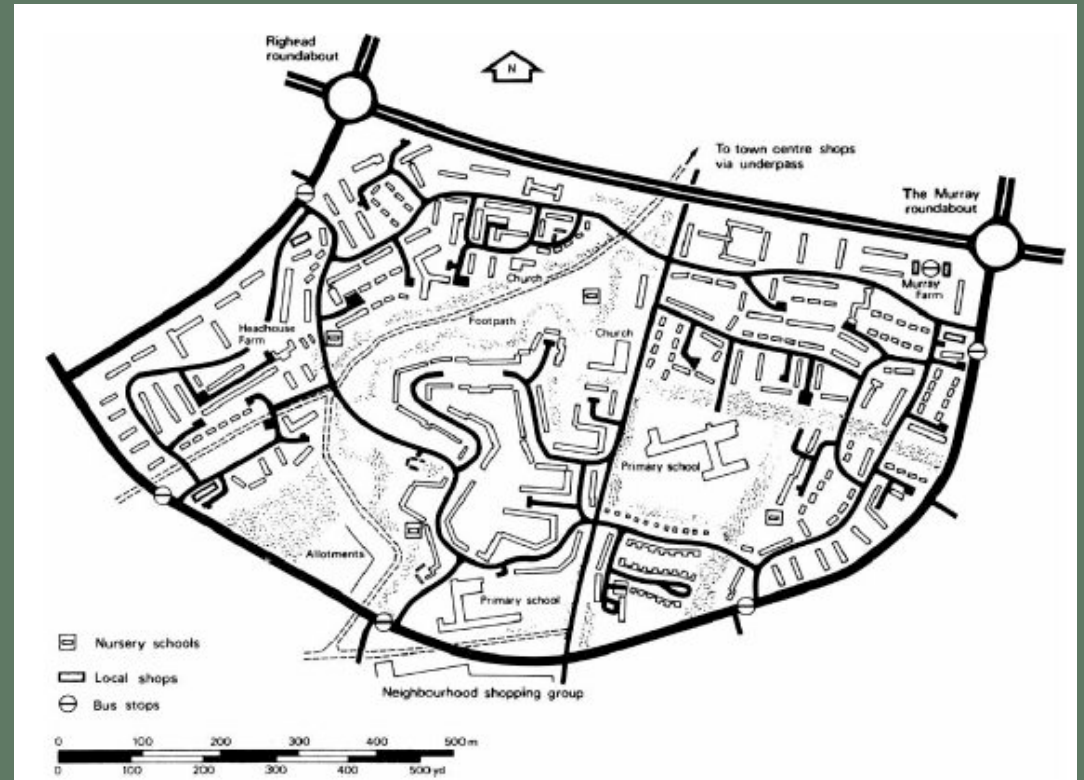
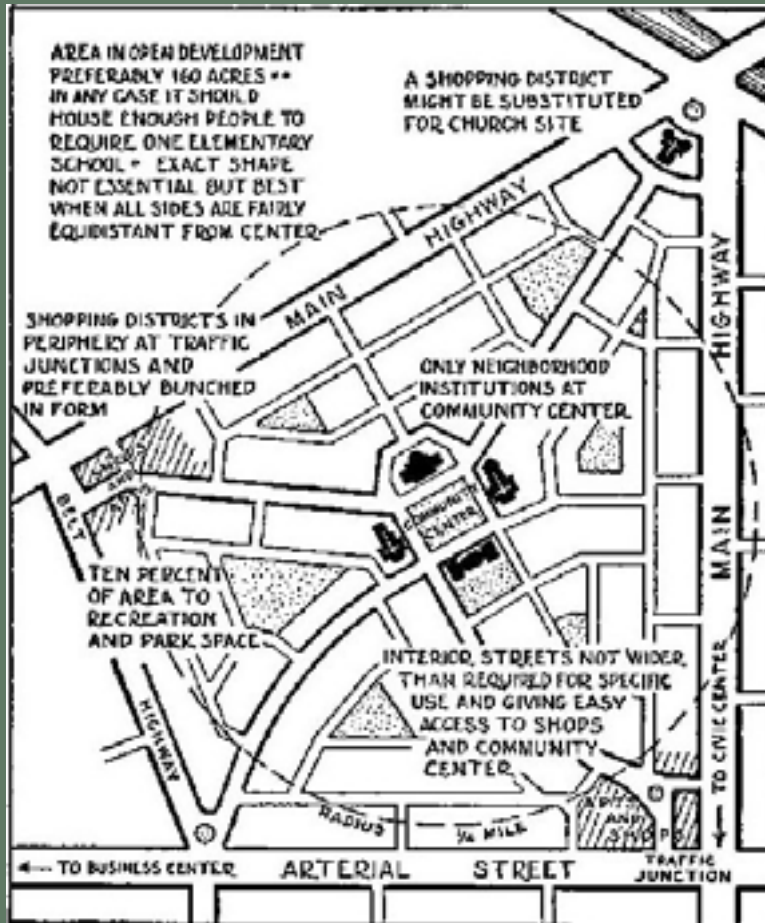


Connection and Transformation of other strong ideas of Modern Urban Planning

- Zoning
- The neighborhood unit
- The City in the Park



The Neighborhood Unity



Typical Neighborhood Unit of the 1950's

The Original Diagram of Clarence Perry for the NY Regional Plan (1929)



The Effect: The Destruction of Urban Public Space

- At City Level: Suburbanization of primary functions
- At the level of the neighborhood: cutting off from neighboring neighborhoods
- At the level of the street: the evaporation of public space



City – The suburbanization of the center



Traditional City



Modern City



The City that is no more



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Elements of a New Paradigm

- Transit Oriented Development
- Car attrition and Pedestrian Priority (Jacobs)
 - Pedestrian zones
 - Woonerf, shared space
 - Traffic Calming – 30 kmh zones
- An old/new paradigm for major streets – the multi-way boulevard



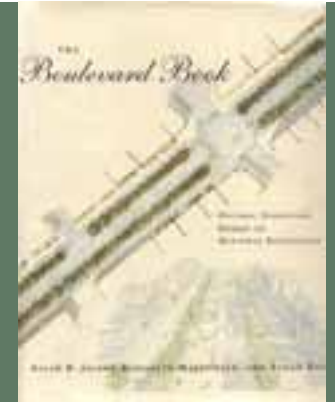
Transit Oriented Development (Curitiba)



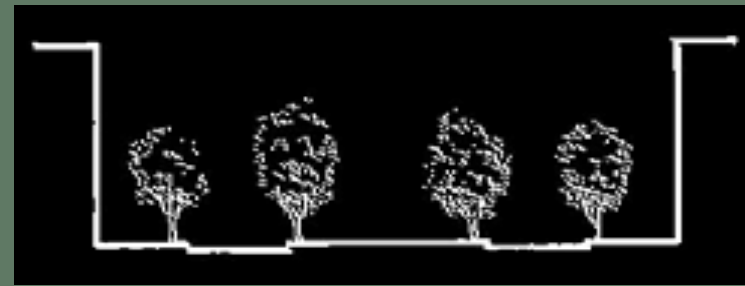
Car Attrition and Pedestrian Priority (Copenhagen)



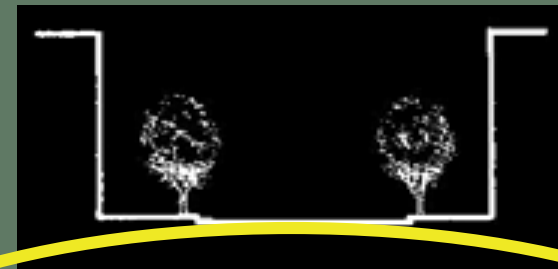
The Multi-way Boulevard: retrieving the complexity of urban major streets



- Central Median



- Street



- Multi-way

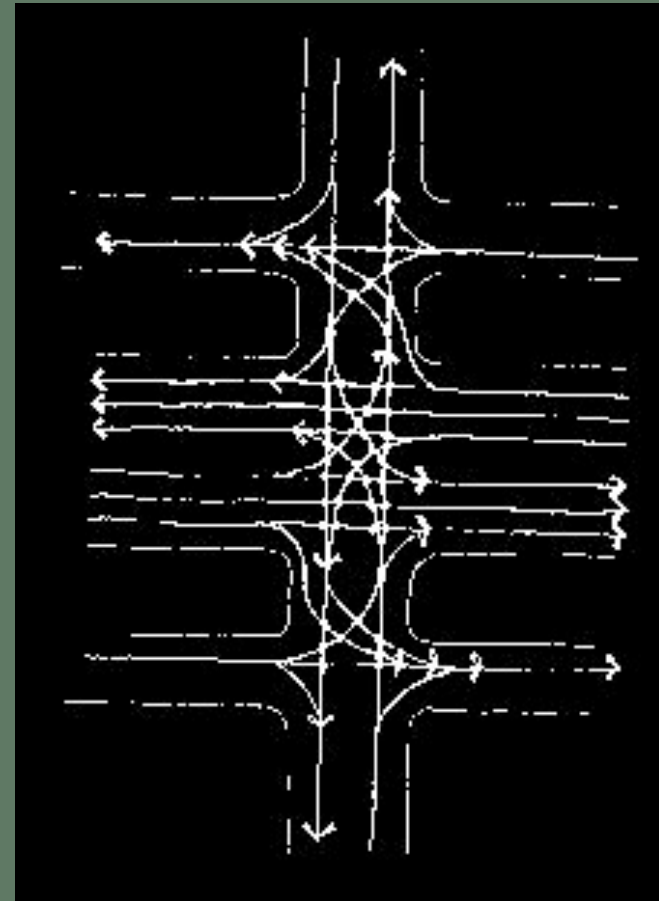


Boulevard Examples



Conclusions on Boulevards' functionality and safety

- Boulevards move an equivalent amount of traffic to comparable arterial streets
- They also allow access and pedestrian activity to commercial and residential uses
- Despite the complexity of intersections, if they are designed well they are as safe, and sometimes safer than comparable arterials
- The key to a boulevard's success is the establishment of the pedestrian realm



Begin Rd., Tel-Aviv

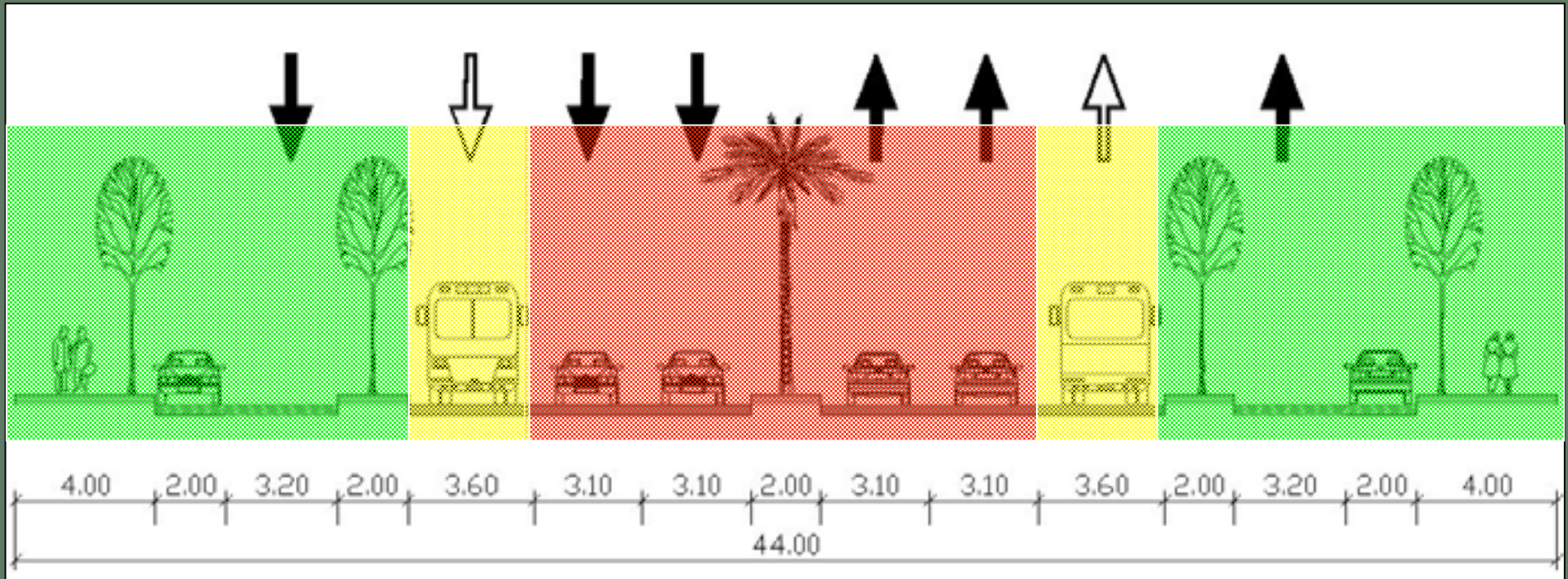
From a suburban road to the major street of the new Metropolitan CBD

After the opening of the Ayalon Freeway, Begin Road is transforming into a complex street surrounded with new commercial, office and residential projects

In part Begin Rd. has become a distributor of the freeway's traffic



Proposed Multi-Way Boulevard Section for Begin Road



Pedestrian Realm/ROW = 51%

Public Transit/ROW = 16%



SS 121 at Villabate near Palermo

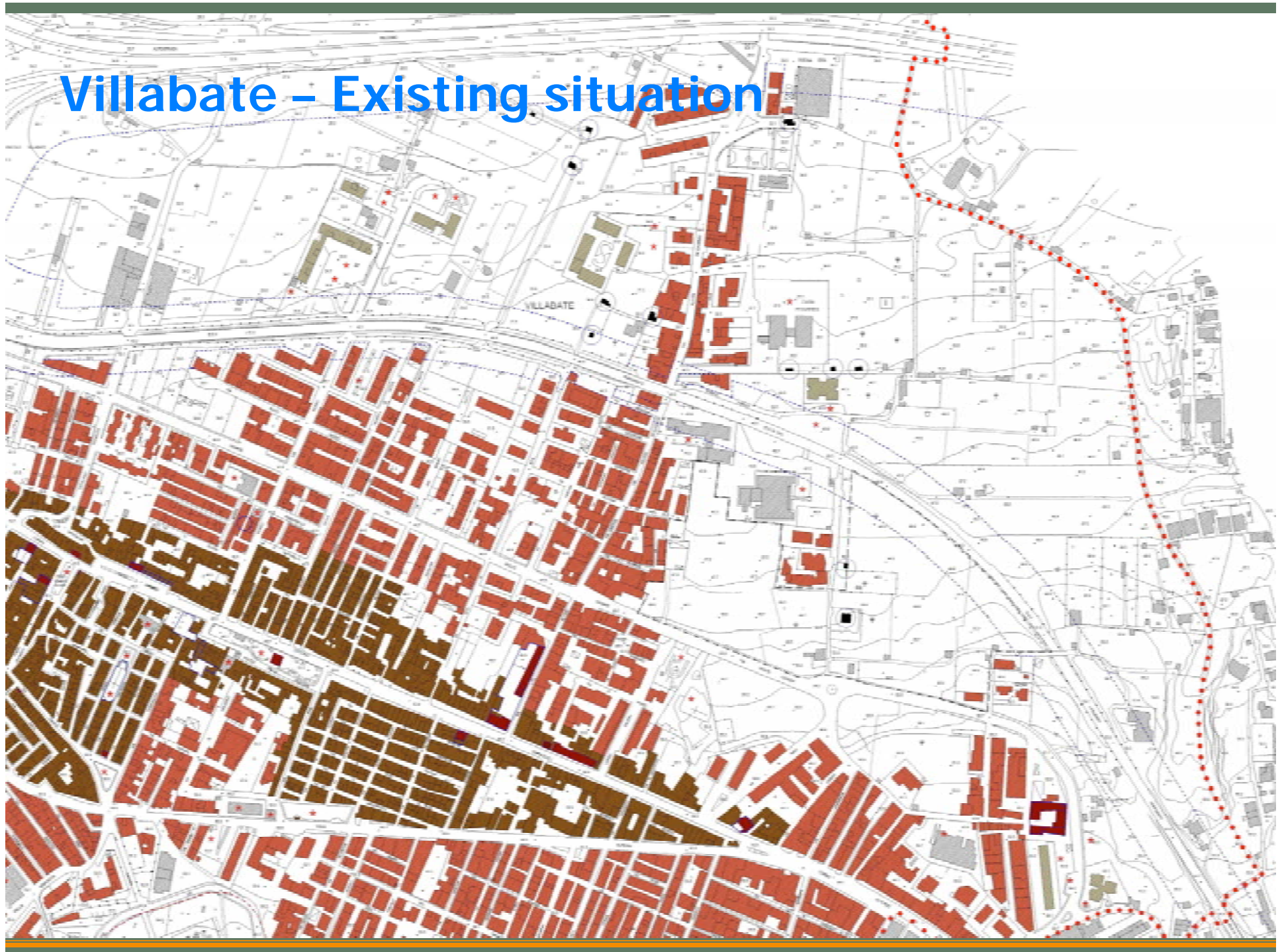


Pointer 38°04'48.14" N 13°26'46.48" E elev 41 m

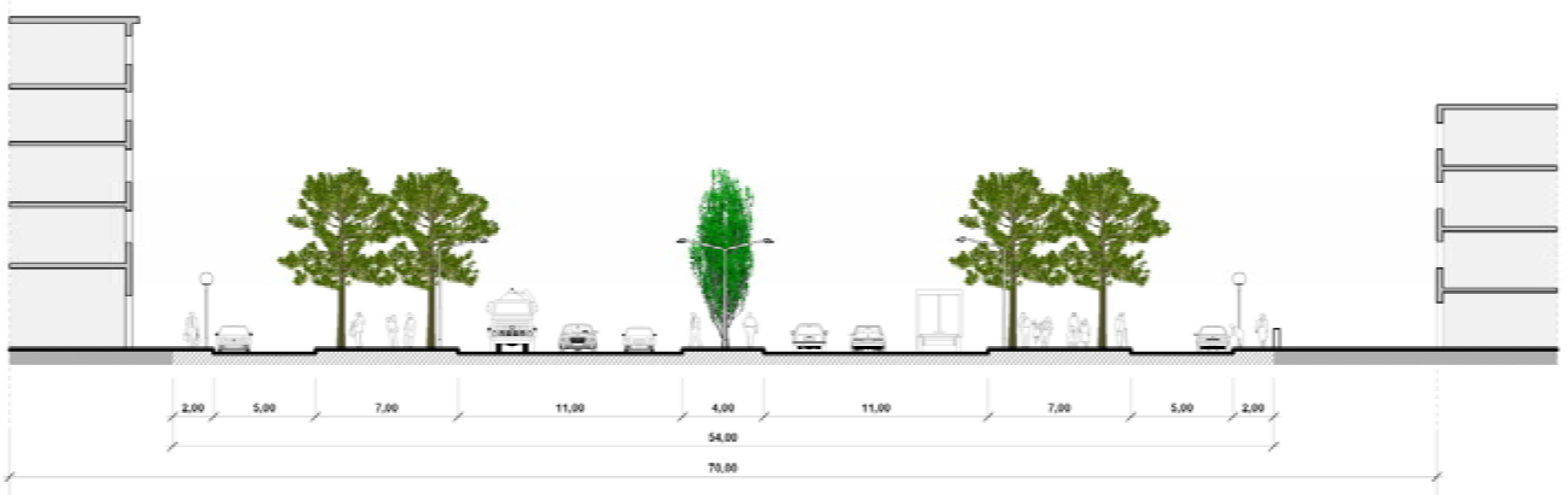
Streaming 100%

Eye alt 2

Villabate – Existing situation



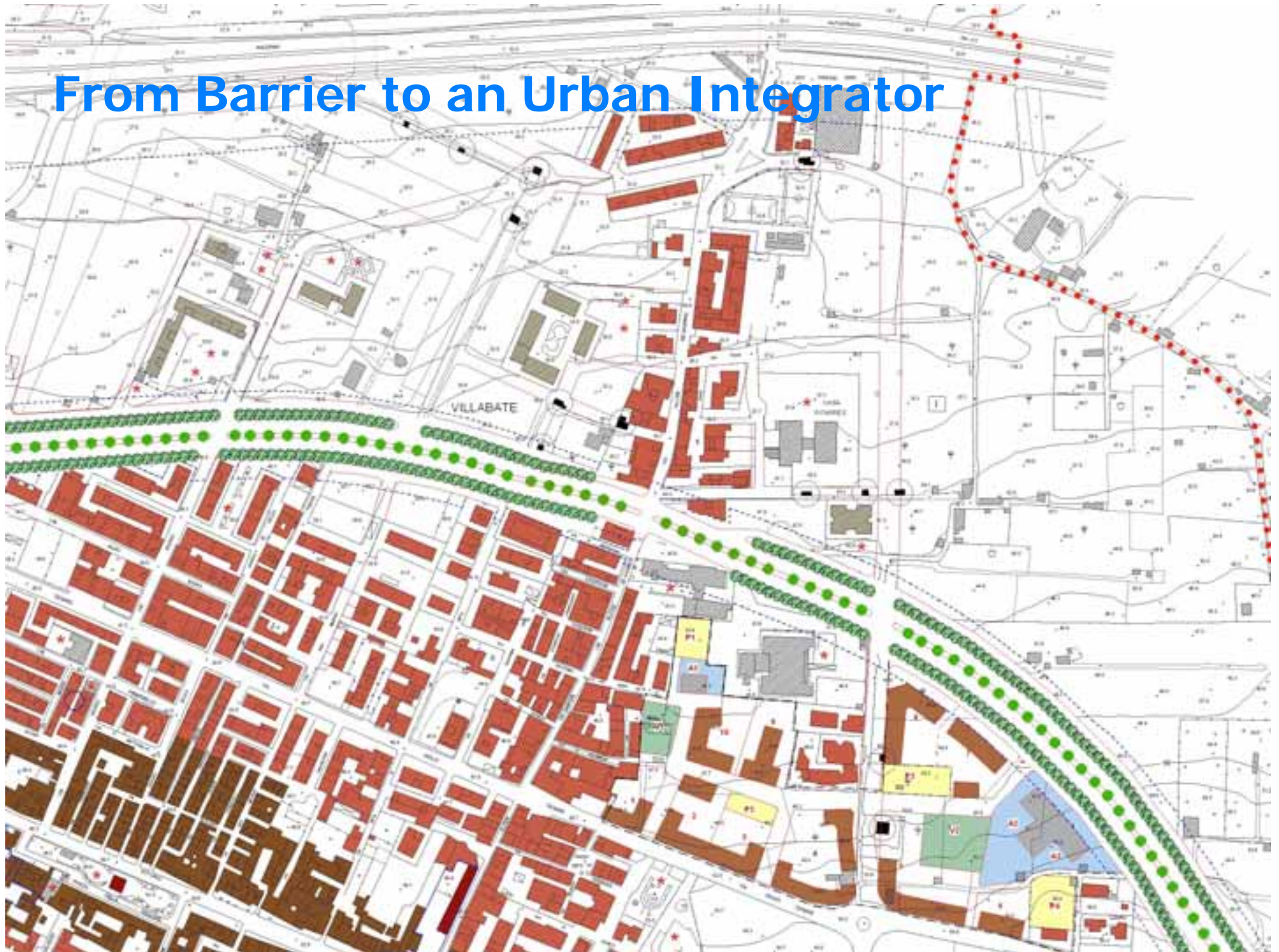
Changing the Section



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מכון בלוסטין למחקר מדברי, אוניברסיטת בן-גוריון של הנגב

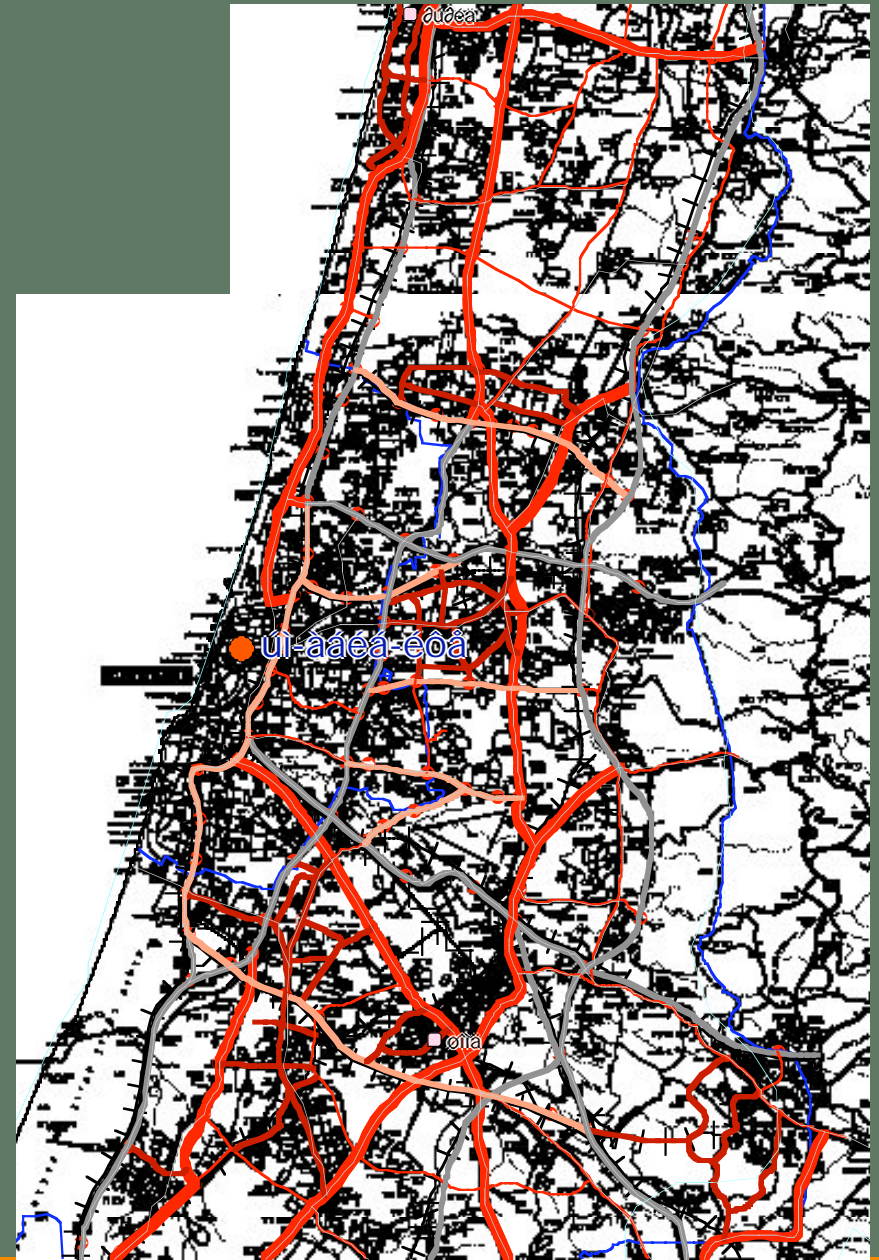


From Barrier to an Urban Integrator



Suburban Freeways in the Tel-Aviv Metropolitan Area

- In the 1990's Israel built Freeway 6 a toll road skirting the Tel-Aviv Metropolitan Area
- The government undertook to build the roads connecting Road 6 with the urban area and the major N-S freeways Roads 4 and 2
- Of 10 "suburban freeways" envisaged in the plan only 2 were built others are stuck in approval
- The lack of freeways caused Road 6 to underperform with regard to projections resulting in the government compensation to the concessionaire



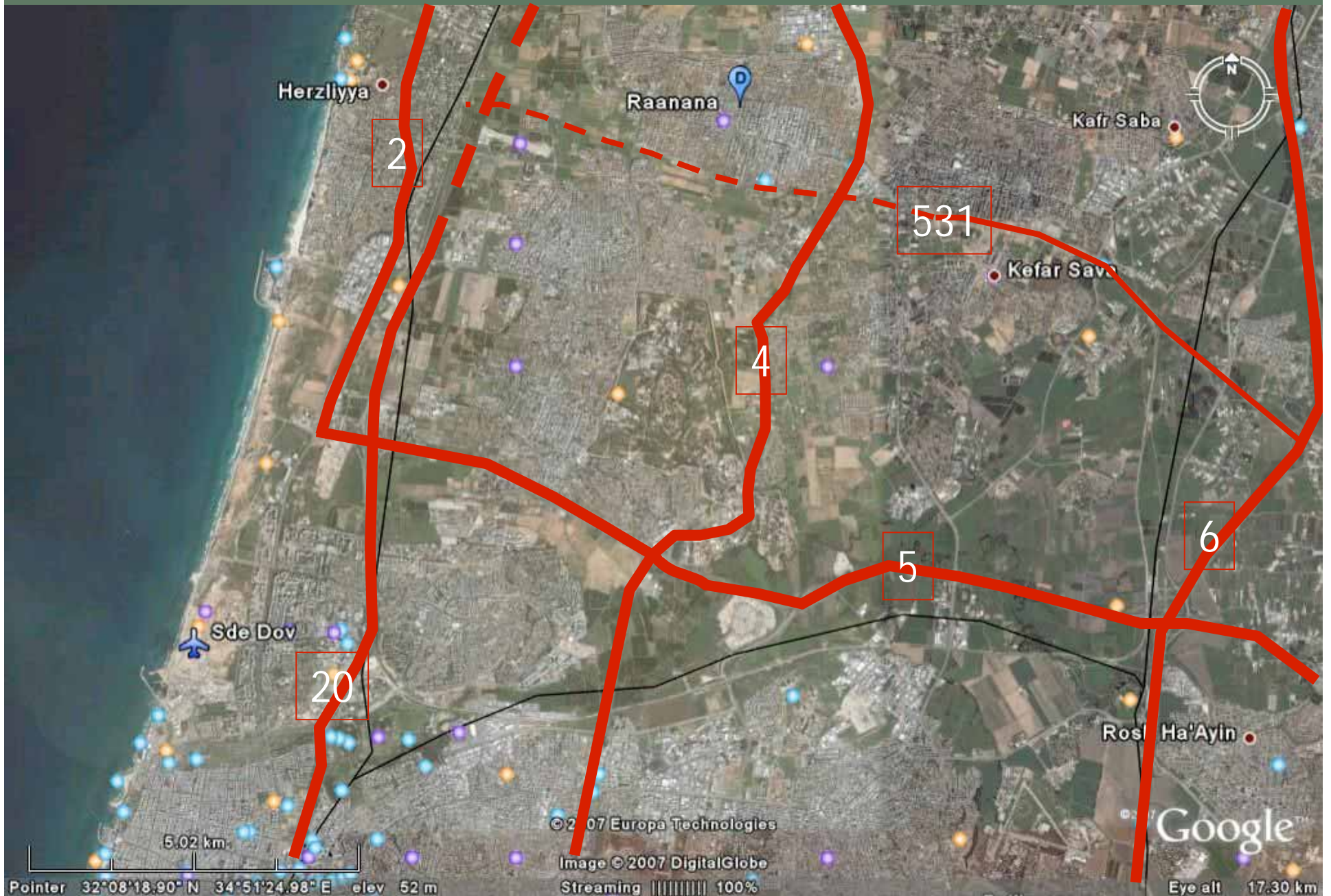
This is what a suburban freeway looks like as it cuts across the urban fabric



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The Case of Road 531



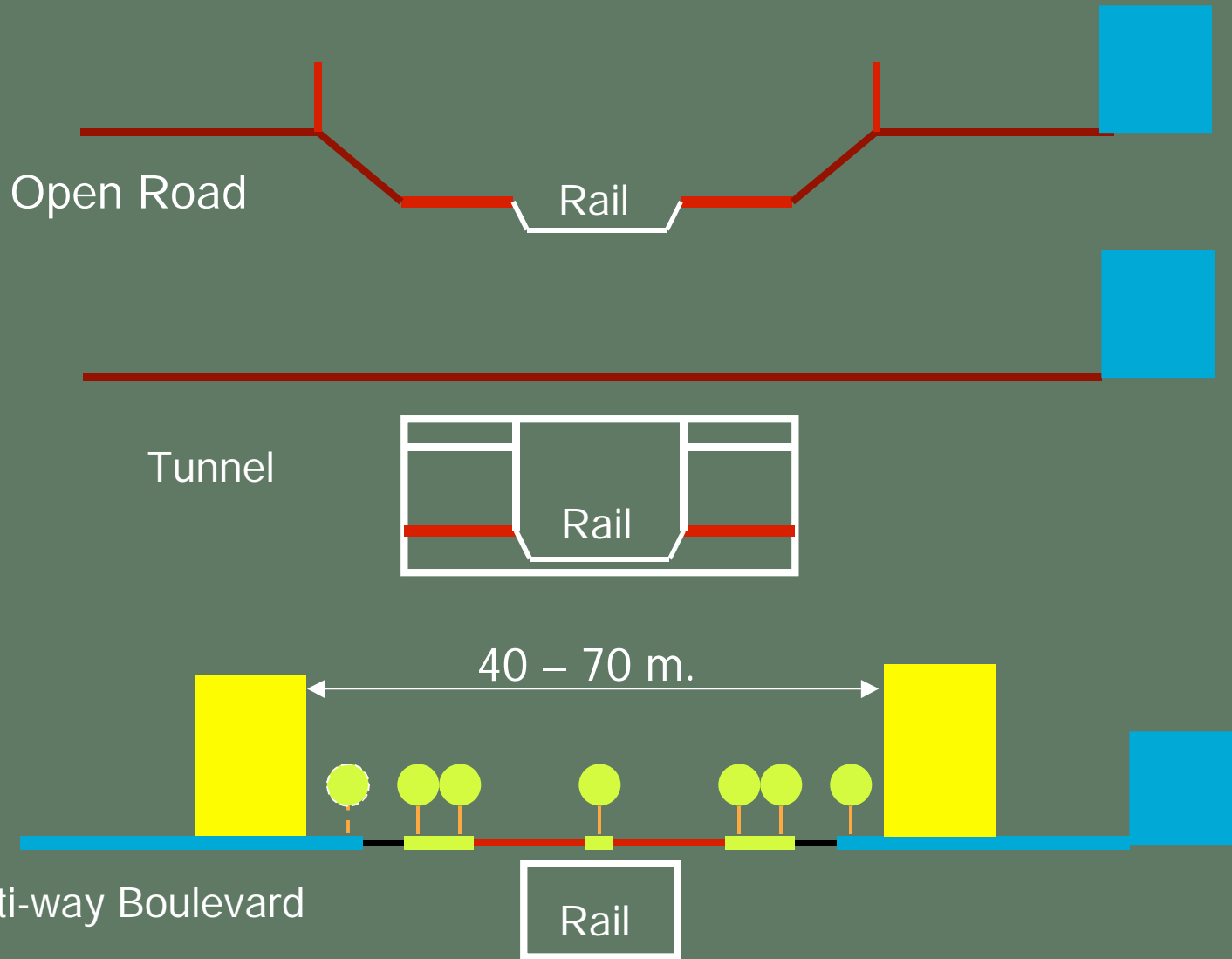
The Case of Road 531



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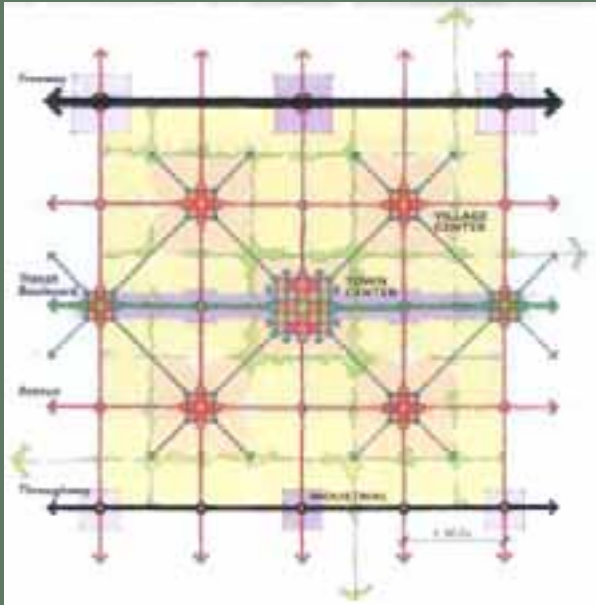
Alternative Sections



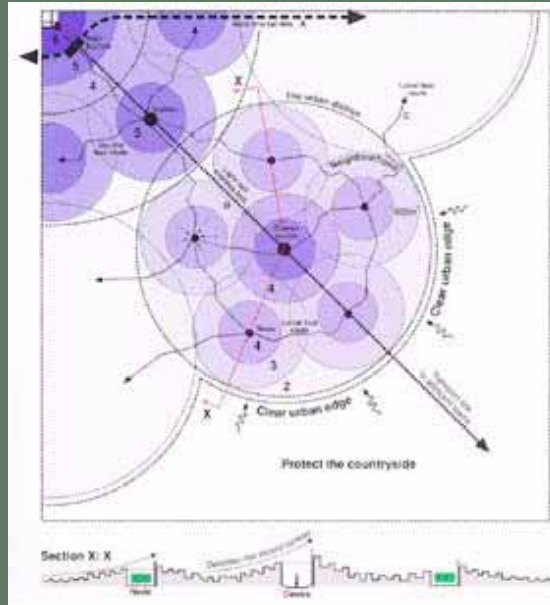
Designing the road as a boulevard creates a connection between the two cities and opens up highly accessible land for urban development



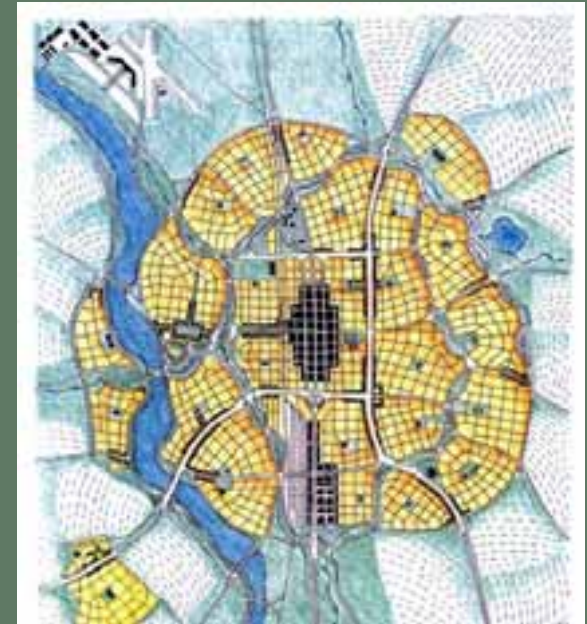
New Urban Concepts



The Urban Network, Peter Calthorpe



Metropolitan Network, Towards and Urban Renaissance



The City of Neighborhoods, Special District and Corridors
Duany – Plater-Zyberk



A proposed New Paradigm: A Two Velocity System

- The Interurban System – > 70 kmh
 - Intercity Rail, Freeways and interurban roads
 - Separated completely from urbanized areas
 - Few interchange points
 - Tangential and Radial
 - The radial roads transform into boulevards as they enter urban areas
- The Urban System - < 30 kmh
 - Dense network of streets
 - Pedestrian Realm
 - Multiplicity of choice (modes and routes)



Proposed New Paradigm - Layout

High Velocity

- Freeways and interurban roads
- Intercity rail

The Urban System

- Interurban roads transform to boulevards as they enter urban areas
- Dense street network designed for 30 kmh speeds

