

# **Sustainability and Land Use**

## **What Might We Learn from Urban Planning Research and Practice?**

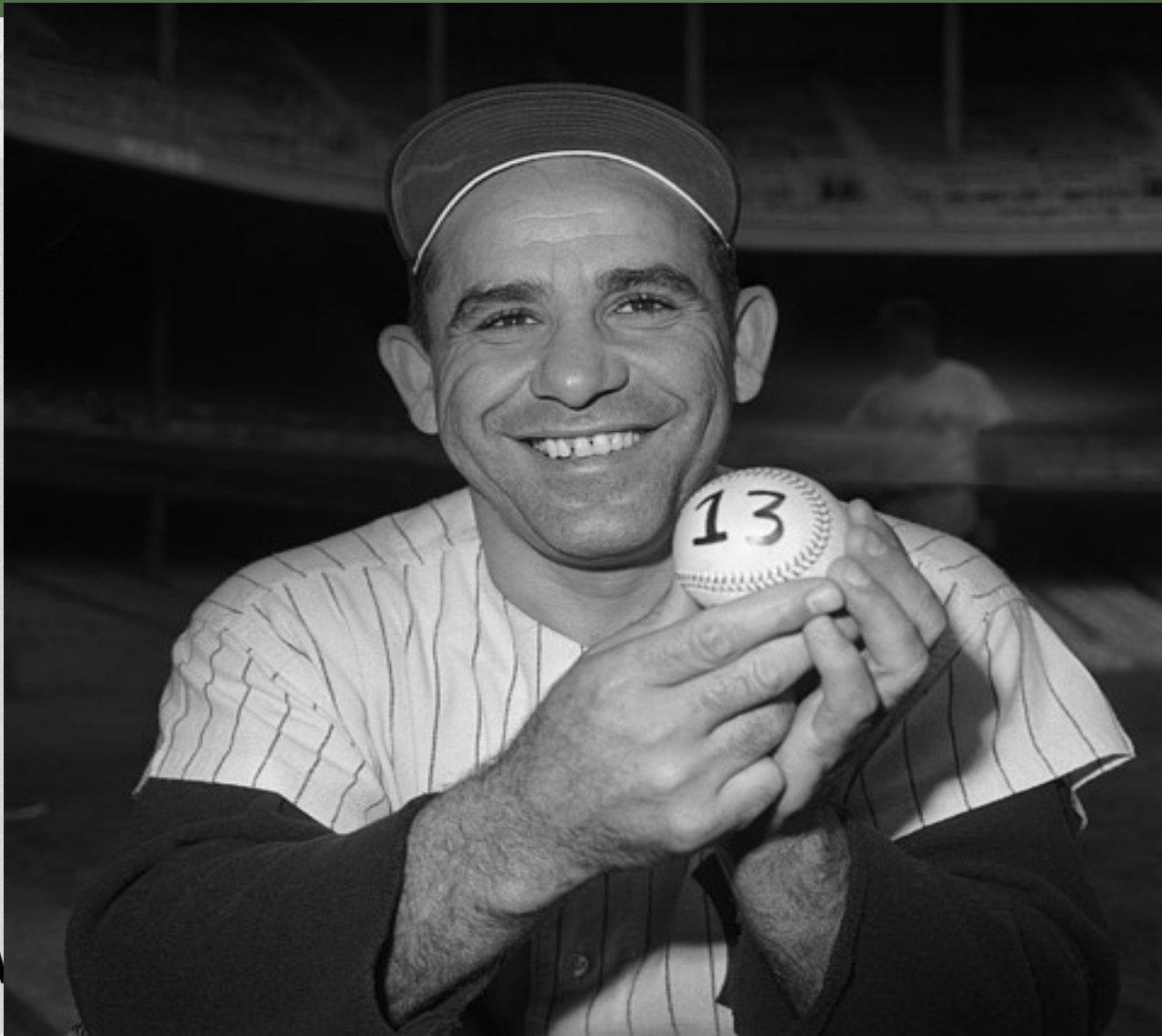
**Alan Weinstein**

**Professor of Law – Cleveland Marshall College of Law  
Professor of Urban Studies – Levin College of Urban Affairs  
Cleveland State University**

**Presented at:**

**Sustainability Conference of American Legal Educators  
Arizona State University  
May 8, 2015**

**“The future ain’t what it used to be....” Lawrence Peter Berra**





# Why Might We Learn from Urban Planning Research and Practice?

## Different Sources

- Urban Planning and Associated Faculty
- APA, ICLEI, Lincoln Land Institute, Rockefeller Fdn., etc.
- City/State/Federal Programs and Staff
- Planning Firms

## Different Focus

- Data-based
- More emphasis on cost, social equity, employment, etc.
- Role of design

# Journal of the American Planning Association

## Special Issue: Planning for Disaster Recovery, Vol. 80, No. 4 (Fall 2014)

- Karl Kim & Robert B. Olshansky (2014) *The Theory and Practice of Building Back Better*, JAPA, 80:4, 289-292.
- Robert B. Olshansky & Laurie A. Johnson (2014) *The Evolution of the Federal Role in Supporting Community Recovery After U.S. Disasters*, JAPA, 80:4, 293-304.
- John Bucher, R. Josh Human & David M. Simpson (2014) *Developing a Framework for State and Local Community Recovery Planning*, JAPA, 80:4, 308-309.
- Philip Berke, John Cooper, Meghan Aminto, Shannon Grabich & Jennifer Horney, *Adaptive Planning for Disaster Recovery and Resiliency: An Evaluation of 87 Local Recovery Plans in Eight States*, JAPA, 80:4, 310-323.



# Edward J. Jepson Jr. & Anna L. Haines (2014) *Zoning for Sustainability: A Review and Analysis of the Zoning Ordinances of 32 Cities in the United States*, JAPA, 80:3, 239-252

Sustainability principles	Regulatory items
I. Encourage higher density development	<ol style="list-style-type: none"> <li>1. Infill development</li> <li>2. Maximum lot size/minimum net density</li> <li>3. Purchase or transfer of development rights (PDR/TDR)</li> <li>4. Small lot residential development permitted (&lt;3,000 square feet)</li> </ol>
II. Encourage mixed use	<ol style="list-style-type: none"> <li>1. Commercial uses permitted in standard residential districts (e.g., R1)</li> <li>2. Housing of any kind permitted in standard commercial districts (e.g., C1)</li> <li>3. Live/work units permitted in standard residential districts (e.g., R1)<sup>a</sup></li> <li>4. Mixed-use land development</li> <li>5. Mixed-use buildings/mixed occupancy permitted in standard residential districts</li> </ol>
III. Encourage local food production	<ol style="list-style-type: none"> <li>1. Agricultural uses permitted in standard residential or commercial districts<sup>b</sup></li> <li>2. Commercial gardens permitted in standard residential or commercial districts</li> <li>3. Community gardens permitted in standard residential or commercial districts</li> <li>4. Farmers markets permitted in standard residential or commercial districts</li> <li>5. Minimum lot size/maximum net density (ag districts only)</li> <li>6. Urban agriculture/farming, including animal keeping</li> </ol>
IV. Protect ecosystems and natural functions	<ol style="list-style-type: none"> <li>1. Conservation subdivisions/cluster housing</li> <li>2. Conservation landscaping</li> <li>3. Green/eco-roofs</li> <li>4. Green infrastructure/on-site water management</li> <li>5. Open space protection/preservation, including agriculture</li> <li>6. Parking lot landscaping</li> <li>7. Pervious surfaces</li> <li>8. Steep slope and hillside protection</li> <li>9. Water resources/wellhead protection, including riparian buffers</li> <li>10. Wetlands and wildlife habitat protection</li> </ol>
V. Encourage transportation alternatives	<ol style="list-style-type: none"> <li>1. Bicycle paths and/or parking</li> <li>2. Complete streets/<i>woonerf</i></li> <li>3. Parking maximums</li> </ol>

Table 2. Zoning ordinance presence scores.

City	Census region	Population	Presence score
Burlington, VT	NE	42,282	33
Northampton, MA	NE	28,592	31
Lee's Summit, MO	MW	92,468	27
Santa Fe, NM	W	69,204	27
Lawrence, KS	MW	89,512	26
Missoula, MT	W	68,394	26
Edinburg, TX	S	81,029	25
Golden, CO	W	19,186	24
Traverse City, MI	MW	14,911	24
Hailey, ID	W	7,920	23
Knoxville, TN	S	182,200	23
Nashua, NH	NE	86,933	23
Rochester, NY	NE	210,532	21
McMinnville, OR	W	32,535	20
Berkeley, CA	W	115,403	19
Portland, ME	NE	66,214	19
Tulsa, OK	S	393,987	17
Lynnwood, WA	W	36,275	16
Decatur, GA	S	19,853	15
Marshfield, WI	MW	18,952	15
Frankfort, KY	S	27,590	14
Tempe, AZ	W	166,842	14
Des Moines, IA	MW	206,688	13
Fairmont, WV	S	18,737	12
Golden Valley, MN	MW	20,776	12
New Brunswick, NJ	NE	56,160	12
Norfolk, VA	S	245,782	11
Meridian, MS	S	40,832	9
Springfield, IL	MW	117,126	8
Meadville, PA	NE	13,263	7
Athens, OH	MW	23,755	6
New London, CT	NE	27,707	1
Average		82,270	17.9

Table 3. Presence levels of sustainability principles and their associated regulatory items.

Sustainability principle	Principle presence level <sup>a</sup>	Regulatory item presence level <sup>b</sup>		
		Low (0–33%)	Medium (34–66%)	High (>66%)
I. Encourage higher density development	Low (14.1)	1. Infill development (28.1) 4. Small lot residential (15.6) 2. Maximum lot size (6.3) 3. PDR/TDR (6.3)	None	None
II. Encourage mixed use	Medium (39.4)	5. Mixed-use buildings (18.8) 3. Live/work units (15.6) 1. Commercial uses (6.3)	None	4. Mixed-use land development (81.3) 2. Housing of any kind (75.0)
III. Encourage local food production	Low (19.3)	6. Urban agriculture (31.3) 1. Agricultural uses (21.9) 3. Community gardens (21.9) 4. Farmers markets (18.8) 5. Minimum lot size (15.6) 3. Commercial gardens (6.3)	None	None
IV. Protect ecosystems and natural functions	Medium (36.6)	7. Pervious surfaces (18.8) 10. Wetlands and wildlife protection (18.8) 3. Green roofs (12.5) 4. Green infrastructure (9.4)	5. Open space protection (65.6) 2. Conservation landscaping (40.6) 1. Conservation subdivisions (40.6) 9. Water resources (46.9) 8. Steep slopes and hillside (37.5)	6. Parking lot landscaping (75.0)
V. Encourage transportation alternatives	Low (31.3)	3. Parking maximums (21.9) 5. TOD (15.6) 6. Transit stops/stations (12.5) 2. Complete streets (6.3)	1. Bicycle paths/parking (59.4)	4. Shared parking (71.9)
VI. Preserve/create a sense of place	Medium (11.2)	8. Public and civic spaces (25.0) 4. Maximum building size (21.9) 1. Form-based code (15.6) 10. Transportation connectivity (12.5) 9. Public markets (9.4) 2. Grocery stores (6.3) 5. Natural hazards (3.1)	None	3. Historic/cultural preservation (78.1) 6. Neighborhood or district development (71.9) 7. Pedestrian-friendly development (71.9) 11. Urban design/design review (71.9)
VII. Increase housing diversity and	Low (29.0)	3. Community housing (18.8) 7. Small dwelling units (3.1)	2. Boarding and rooming houses (53.1) 1. Accessory/secondary dwelling units (46.9)	None



**Rebecca Hendrick & Yu Shi, *Macro-Level Determinants of Local Government Interaction: How Metropolitan Regions in the United States Compare*, Urban Affairs Review May 2015 51: 414-438**

Empirical and theoretical research on government competition and collaboration identifies several important macro-level characteristics that can affect these forms of interaction between local governments within the same large jurisdiction. These characteristics are fragmentation of governments, fiscal dispersion of governments, sorting of population by governments, and decentralized fiscal responsibility between state and local governments. This study **presents indices to measure these characteristics and examines how metropolitan regions in the United States with populations greater than one million are distributed on these indices.**



# Journal of Planning Education & Research

- Shima Hamidi, Reid Ewing, Ilana Preuss, & Alex Dodds, *Measuring Sprawl and Its Impacts: An Update*, Vol. 35, 35-50
- Philip R. Berke, Ward Lyles & Gavin Smith, *Impacts of Federal and State Hazard Mitigation Policies on Local Land Use Policy*, Vol. 34, 60-76
- Yizhao Yang & Jean Stockard, *Do Smart Growth Environments Benefit Single Mothers? Evidence from Thirty MSAs Using the American Housing Survey Data*, Vol. 33, 411-426 (2013)
- Joseph F. Cabrera & Jonathan C. Najarian, *Can New Urbanism Create Diverse Communities*, Vol. 33, 427-441 (2013)
- Shishir Mathur, *Do All Impact Fees Affect Housing Prices the Same?*, Vol. 33, 442-455 (2013)

# Donald Shoup, U.C.L.A. Planning

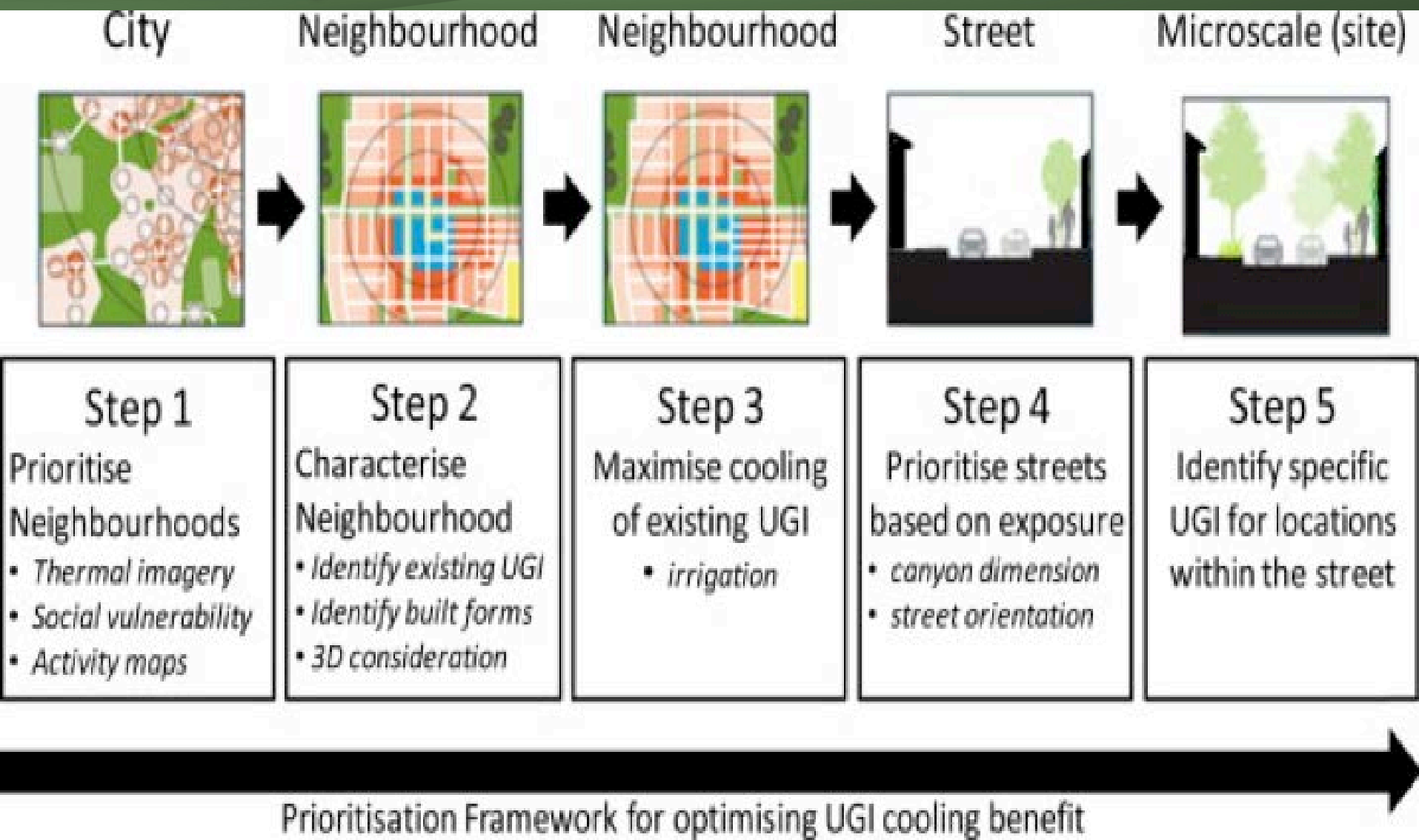
## THE HIGH COST OF FREE PARKING

Cities should charge fair market prices for on-street parking, use the meter revenue to finance added public services in the metered neighborhoods, and remove off-street parking requirements.

- Charging the right prices for curb parking will reduce traffic congestion, energy consumption and air pollution.
- No one wants to pay for curb parking, including me. To overcome this unwillingness to pay, cities should return the parking meter revenue to pay for added public services on the metered streets, as Pasadena and some other cities do.
- “Minimum parking requirements act like a fertility drug for cars.”  
Minimum parking requirements prohibit building anything that does not have all the required parking.



**Norton, Coutts, et al. *Planning for Cooler Cities: A Framework to Prioritise Green Infrastructure to Mitigate High Temperatures in Urban Landscapes*, Landscape & Urban Planning, Vol. 134, 127-138, February 2015**



earthscan  
from Routledge

# PLANNING SUSTAINABLE CITIES AND REGIONS

TOWARDS MORE EQUITABLE DEVELOPMENT

KAREN CHAPPLE



ROUTLEDGE EQUITY, JUSTICE AND THE SUSTAINABLE CITY SERIES



Chapple (2014), “The highest and best use? Urban industrial land and job creation”  
*Economic Development Quarterly*

This map illustrates the study area for the project, covering parts of the San Francisco Bay Area. The map includes the following features:

- Industrial Zones:** Shaded in dark green, these areas are located in Richmond, Berkeley, Emeryville, and Oakland.
- Cities included in Study Area:** Shaded in light orange, these include Richmond, Berkeley, Emeryville, and Oakland.
- Geographical Features:** The map shows the San Francisco Bay to the west and south, and the Alameda Hills to the east. Major roads like I-80 and I-580 are visible.
- Legend:** A legend in the bottom left corner identifies the dark green areas as "Industrial Zones" and the light orange areas as "Cities included in Study Area".
- Scale:** A scale bar at the bottom indicates distances of 0, 1.5, 3, and 6 miles.
- Orientation:** A north arrow is located in the bottom right corner.

# Role of “messy space” in job creation







# Lessons from Sandy

## Federal Policies to Build Climate-Resilient Coastal Regions



ROBERT PIRANI AND LAURA TOLKOFF

## THE NEW CLIMATE ECONOMY

The Global Commission on the Economy and Climate



NCE Cities – Sprawl Subsidy Report

# ANALYSIS OF PUBLIC POLICIES THAT UNINTENTIONALLY ENCOURAGE AND SUBSIDIZE URBAN SPRAWL

Lead Author: Todd Litman, Victoria Transport Policy Institute

## CONTENTS

	Page
EXECUTIVE SUMMARY	3
INTRODUCTION	9
WHAT ARE SPRAWL AND SMART GROWTH?	10
THE DEMAND FOR SPRAWL	17
WHAT ARE THE INCREMENTAL COSTS AND BENEFITS OF SPRAWL?	20
WHAT IS THE ESTIMATED MAGNITUDE OF SPRAWL COSTS?	42
HOW MUCH URBAN EXPANSION IS OPTIMAL?	47
WHAT POLICY DISTORTIONS LEAD TO ECONOMICALLY EXCESSIVE SPRAWL?	55
WHAT ARE THE POLICY IMPLICATIONS FOR RAPIDLY URBANIZING COUNTRY CITIES?	61
SMART GROWTH EXAMPLES	62
EVALUATING CRITICISM	66
CONCLUSIONS AND RECOMMENDATIONS	69
REFERENCES	74

## The New Climate Economy

The New Climate Economy (NCE) is the flagship project of the Global Commission on the Economy and Climate. It was established by seven countries, Colombia, Ethiopia, Indonesia, Norway, South Korea, Sweden and the United Kingdom, as an independent initiative to examine how countries can achieve economic growth while dealing with the risks posed by climate change. The NCE Cities Research Programme is led by LSE Cities at the London School of Economics. The programme includes a consortium of researchers from the Stockholm Environment Institute, the ESRC Centre for Climate Change Economics and Policy, the World Resources Institute, Victoria Transport Policy Institute, and Oxford Economics. The NCE Cities Research Programme is directed by Graham Floater and Philipp Rode.

## SUMMARY

This report investigates evidence that current development policies result in economically excessive sprawl. It defines sprawl and its alternative, "smart growth," describes various costs and benefits of sprawl, and estimates their magnitude. It identifies policy distortions that encourage sprawl. It discusses factors to consider when determining the optimal amount and type of urban expansion for various types of cities. It discusses the implications of this analysis for rapidly urbanizing countries. It identifies potential policy reforms that could result in more efficient and equitable development patterns, and describes examples of their implementation. It also discusses criticisms of sprawl cost studies and smart growth policies.

An abundance of credible research indicates that sprawl significantly increases per capita land development, and by dispersing activities, increases vehicle travel. These physical changes impose various economic costs including reduced agricultural and ecological productivity, increased public infrastructure and service costs, plus increased transport



# American Planning Association Sustainability Program





# APA Sustainability Policy Guide

- Spring 2014: APA Sustainable Development Division presents session about Update at APA National Conference in Atlanta
- Fall 2014: Public Outreach
- Winter 2014-2015: Technical Expert Input
- **Spring 2015: Draft Policy Guide Reviewed at APA National Conference in Seattle**
- Summer 2015: Draft Review by Chapters and Divisions
- Fall 2015: Goal for Adoption at Leadership and Policy Conference

# APA Sustainability Policy Guide

- The standards are defined around principles, processes and attributes as well as supporting best practices for what a comprehensive plan should do:
  - **Principles:** *Normative statements* of intent that underlie a plan's overall strategy, including its goals, objective, policies, maps, and other content.
  - **Processes:** *Planning activities* that take place during the preparation of a comprehensive plan and define how it will be carried out—public participation and plan implementation.
  - **Attributes:** *Plan-making design standards* that shape the content and characteristics of comprehensive plans.



	Practice	Concept Definition	Not Applicable (N/A)	Not Present (0)	Low Achievement (1)	Medium Achievement (2)	High Achievement (3)	Notes (Indicate where in each principle is discussed)
	<b>Built Environment</b>	Ensure that all elements of the built environment, including land use, transportation, housing, energy, and infrastructure, work together to provide sustainable, green places for living, working, and recreation with a high quality of life.						
Built Environment	1.1 Plan for multi-modal transportation	A multimodal transportation system allows people to use a variety of transportation modes, including walking, biking, and other mobility devices (e.g., wheelchairs), as well as transit where possible. Such a system reduces dependence on automobiles and encourages more active forms of personal transportation, improving health outcomes and increasing the mobility of those who are unable or unwilling to drive (e.g., youth, persons with disabilities, the elderly). Fewer cars on the road also translates to reduced air pollution and greenhouse gas emissions with associated health and environmental benefits.						
Built Environment	1.2 Plan for transit oriented development	Transit-oriented development (TOD) is characterized by a concentration of higher density mixed use development around transit stations and along transit lines, such that the location and the design of the development encourage transit use and pedestrian activity. TOD allows communities to focus new residential and commercial development in areas that are well connected to public transit. This enables residents to more easily use transit service, which can reduce vehicle-miles traveled and fossil fuels consumed and associated pollution and greenhouse gas emissions. It can also reduce the need for personal automobile ownership, resulting in a decreased need for parking spaces and other automobile-oriented infrastructure.						
Built Environment	1.3 Coordinate regional transportation investments with job clusters	Coordinating regional transportation systems and areas of high employment densities can foster both transportation efficiency and economic development. This is important for creating and improving access to employment opportunities, particularly for disadvantaged populations without easy access to personal automobiles.						
Built Environment	1.4 Provide complete streets serving multiple functions	Complete streets are streets that are designed and operated with all users in mind—including motorists, pedestrians, bicyclists, and public transit riders (where applicable) of all ages and abilities—to support a multi-modal transportation system. A complete street network is one that safely and conveniently accommodates all users and desired functions, though this does not mean that all modes or functions will be equally prioritized on any given street segment. Streets that serve multiple functions can accommodate travel, social interaction, and commerce, to provide for more vibrant neighborhoods and more livable communities.						
Built Environment	1.5 Plan for mixed land-use patterns that are walkable and bikeable	Mixed land-use patterns are characterized by residential and nonresidential land uses located in close proximity to one another. Mixing land uses and providing housing in close proximity to everyday destinations (e.g., shops, schools, civic places, workplaces) can increase walking and biking and reduce the need to make trips by automobile. Mixed land-use patterns should incorporate safe, convenient, accessible, and attractive design features (e.g., sidewalks, bike street furniture, bicycle facilities, street trees) to promote walking and biking.						
Built Environment	1.6 Plan for infill development	Infill development is characterized by development or redevelopment of undeveloped or underutilized parcels of land in otherwise built-up areas, which are usually served by or have ready access to existing infrastructure and services. Focusing development and redevelopment on infill sites takes advantage of this existing infrastructure while helping to steer development away from greenfield sites on the urban fringe, which are more expensive to serve with infrastructure and services.						
Built Environment	1.7 Encourage design standards appropriate to the community context.	Design standards are specific criteria and requirements for the form and appearance of development within a neighborhood, corridor, special district, or jurisdiction as a whole. These standards serve to improve or protect both the function and aesthetic appeal of a community. Design standards typically addresses building placement, building massing and materials, and the location and appearance of elements (such as landscaping, signage, and street furniture.) They can encourage development that is compatible with the community context and that enhances sense of place. While the design standards will not be specified in the comprehensive plan itself, the plan can establish the direction and objectives that detailed standards should achieve.						
Built Environment	1.8 Provide accessible public facilities and spaces	Public facilities play an important role in communities and they should be able to accommodate persons of all ages and abilities. Public facilities and spaces should be equitably distributed throughout the community. They should be located and designed to be safe, served by different transportation modes, and accessible to visitors with mobility impairments.						

Column Subtotal:							Principle Total:
------------------	--	--	--	--	--	--	------------------



# APA Sustainability Policy Guide

## PILOT COMMUNITIES

<u>Community</u>	<u>Population</u>
▪ Savona, NY	822
▪ Foxborough, MA	16,865
▪ Wheeling, Wva	28,213
▪ Goshen, IN	31,719
▪ Rock Island, IL	35,018
▪ Auburn, WA	70,180
▪ New Hanover Cnty, NC	202,677
▪ Oklahoma City, OK	599,199
▪ Seattle, WA	634,535
▪ Memphis/Shelby Cnty, TN	927,644

## TEST THE STANDARDS AND SCORING PROCEDURE

1. *Imagine Austin*, Austin, Texas (adopted 2012)
2. *plaNorfolk2030*, Norfolk, Virginia (adopted 2013)
3. *The 2030 Comprehensive Plan for the City of Raleigh*, Raleigh, North Carolina (adopted 2009)
4. *CityofRockIslandComprehensive Plan*, Rock Island, Illinois (pilot community plan adopted 2014)

## COMPLETED PLANS USED TO



# One New York

The Plan for a Strong  
and Just City



The City of New York  
Mayor Bill de Blasio

Anthony Shorris  
First Deputy Mayor

**NYC**

# 2015 SUSTAINABLE CHICAGO

*ACTION AGENDA*





# Green Infrastructure & Resiliency in New York City



2007



2008



2011



# Right of Way Bioswale





# Stormwater Greenstreet



Photo: NYC DPR



# Stormwater Greenstreet



Photo: NYC DPR



# Resiliency



Photo: NYC DPR



# City of San Francisco Green Connection Program

A Green Connection is a special street or path that connects people to parks, open spaces, and the waterfront, while enhancing the ecology of the street environment.



# City of San Francisco Green Roof Strategy

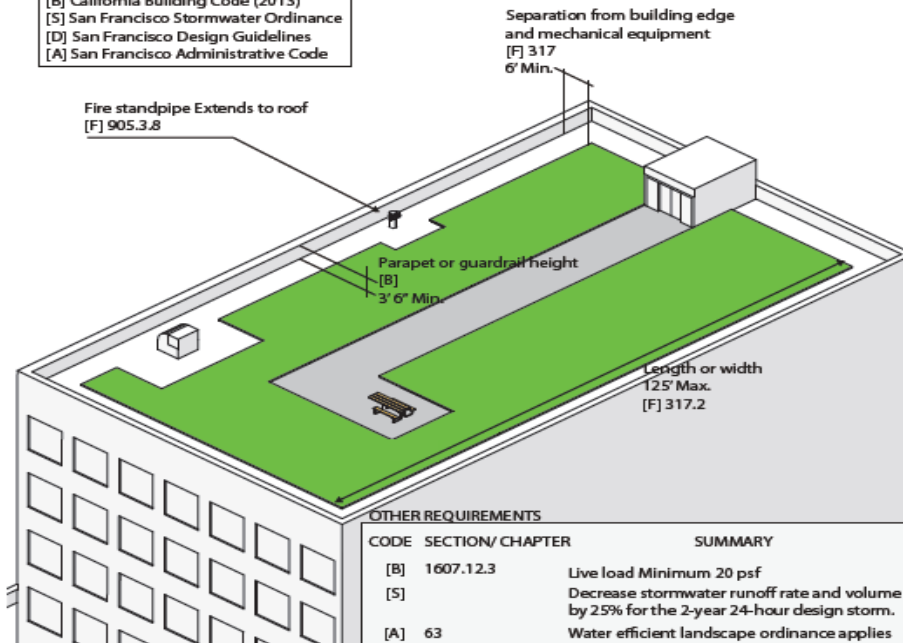
## PROCESS & CODE REQUIREMENTS

### CODE COMPLIANCE: Commercial Roof

Commercial rooftops are more likely to have a low slope than residential rooftops. This is an example of a new construction roof, that is accessible to occupants, and includes outdoor amenities.

#### Key

- [F] California Fire Code (2013)
- [P] California Plumbing Code (2013)
- [B] California Building Code (2013)
- [S] San Francisco Stormwater Ordinance
- [D] San Francisco Design Guidelines
- [A] San Francisco Administrative Code



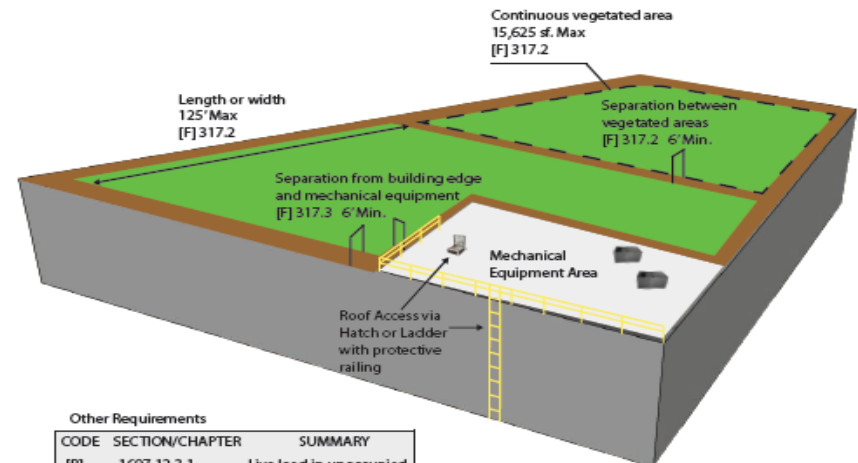
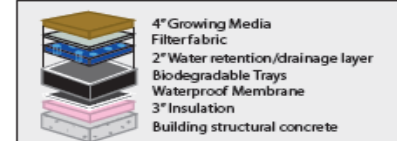
### CODE COMPLIANCE: PDR Roof

Rooftops in Production, Distribution, and Repair zones will likely have a low to moderate slope. Structural loading will be a large concern, due to the generally open floorplans of these buildings. This example is a retrofit with an extensive tray-based system.

#### Key

- [F] California Fire Code (2013)
- [B] California Building Code (2013)
- [S] San Francisco Stormwater Ordinance
- [BL] Bay Localize "Tapping the Potential of Urban Rooftops" Report

#### Roof Section Detail



#### Other Requirements

CODE	SECTION/CHAPTER	SUMMARY
[B]	1607.12.3.1	Live load in unoccupied landscaped areas - minimum 20 psf
[BL]	Table 2-1	Additional Loading Capacity for PDR types estimated at 5-10 psf.



# Charleston, S.C.

## Incorporate Elevation into Restoratio



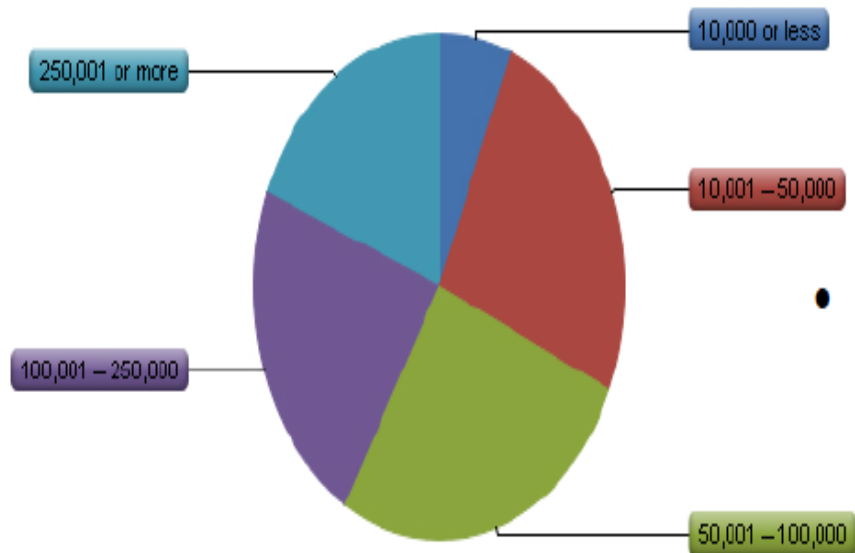
# Public/Private Planners/Firms

- Climate Action Plans
- Rebuild by Design
- Understanding Density



# Climate Action Plans

- Bruce Race, Asst. Professor of Practice, Ball State University
- 2009 Case Studies of CAPs in 8 Cities: Annapolis, Austin, Berkeley, Boulder, Bozeman, Chicago, Key West, & Portland
- National Survey of CAP Cities: selected 128 city sample from 192 cities with CAPs



- In spring of 2012 **over 500 cities were reviewed** from lists from ICLEI, U.S. Conference of Mayors, and EPA
- 180 cities were identified as completing CAPs. Another online search turned up a dozen more for a total population of **192 cities with completed CAPs.**
- Desired **sample size is 128** cities for a margin of error of 5%

#	Answer	Response	%
1	<a href="#">10,000 or less</a>	9	6%
2	<a href="#">10,001 - 50,000</a>	36	25%
3	<a href="#">50,001 - 100,000</a>	38	27%
4	<a href="#">100,001 - 250,000</a>	32	23%
5	<a href="#">250,001 or more</a>	27	19%
Total		142	100%



## CAP Influence on the Future Form of Cities:

- Low-carbon cities will employ **compression strategies that fix and determine growth boundaries**.
- **Strategies will be scalable** - - from regional to site-level - - and will provide **visible evidence** of a place that is **evolving into a low-carbon city**.
- Due to the complexity and legacy of climate, ecologies, physical settings, and history cities will continue to have their own **signature development**

# **REBUILD BY DESIGN**

**An Initiative of the President's  
Hurricane Sandy Rebuilding  
Task Force**

**In Collaboration  
With NYU's  
Institute for Public  
Knowledge  
Municipal Art  
Society Regional  
Plan Association  
Van Alen Institute**

**Lead Supporter  
The Rockefeller Foundation**

**With Support From  
Deutsche Bank Americas  
Foundation  
Hearst Foundation  
Surdna Foundation  
The JPB Foundation  
The New Jersey Recovery Fund**

## **Rebuild by Design**

**•Innovating Together to Create a Resilient Region**





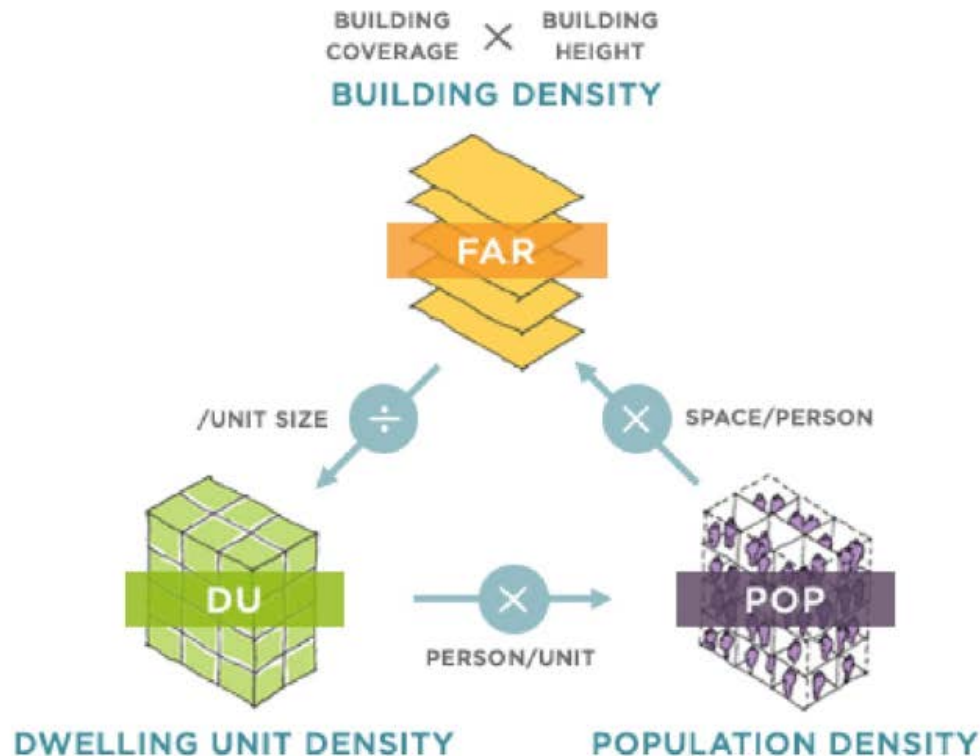






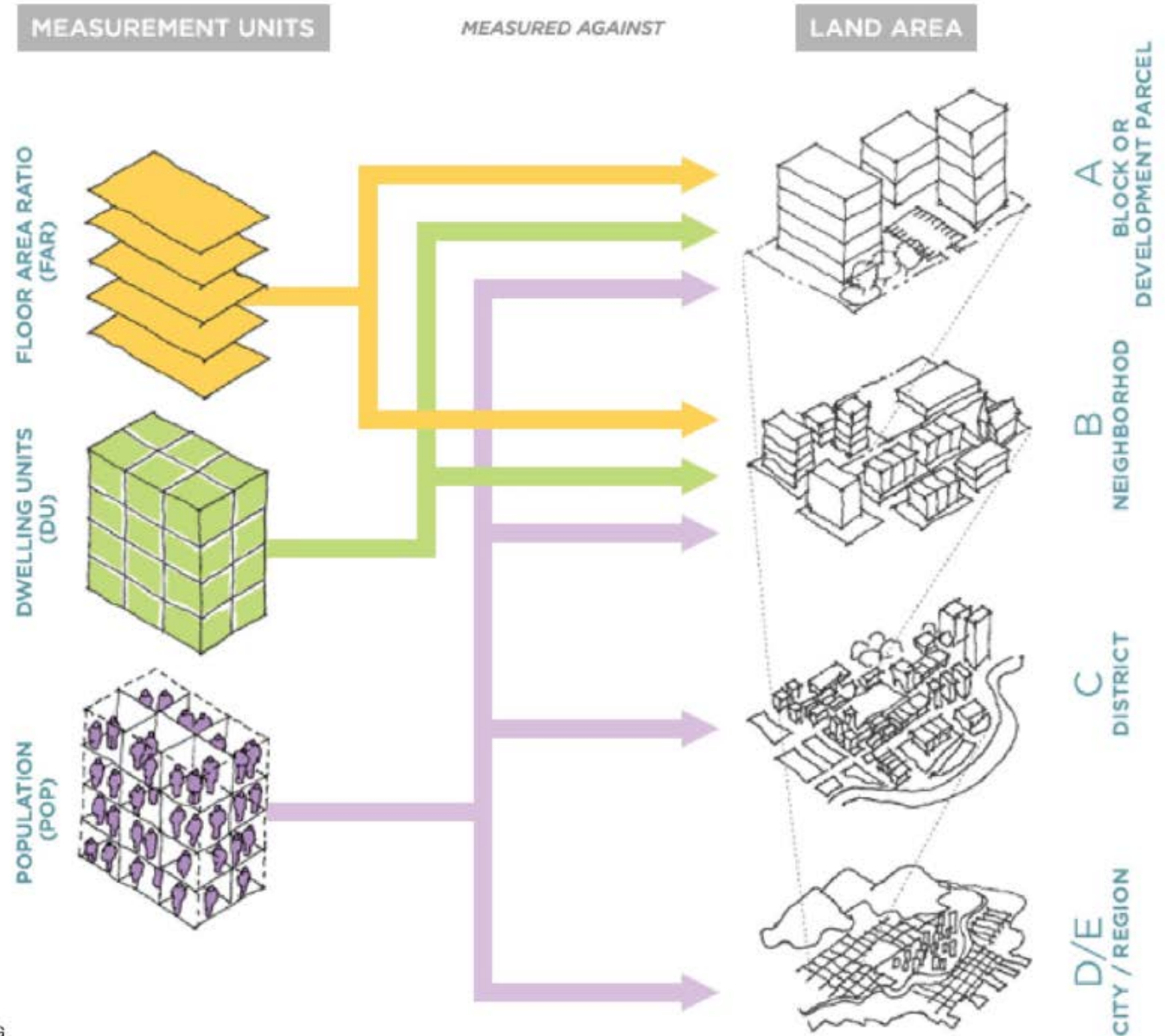


# Understanding Density Metrics: Why Measurement Matters



# METHODS OF QUANTIFICATION

## METRICS + SCALES





## CRITICAL THRESHOLDS TRANSIT

“URBAN DENSITY CAN BE USED TO EXPLAIN 96% OF THE VARIANCE IN PER CAPITA TRANSIT USE.”

A MINIMUM THRESHOLD OF URBAN INTENSITY (COMBINED RESIDENTS AND JOBS) OF 35-PER-HECTARE HAS BEEN FOUND TO HAVE SOME BASIS IN DATA, AND CAN BE EXPLAINED IN THEORY THROUGH THE TRAVELTIME BUDGET AND THE LEVELS OF AMENITIES

Table 1.9. TOD types with land use and transit characteristics.

TOD Type	Land Use Mix	Minimum Housing Density	Regional Connectivity	Frequencies
Urban Downtown	Office Center Urban Entertainment Multiple Family Retail	> 60 units per acre	High Hub of regional system	<10 minutes
Urban Neighborhood	Residential Retail Class B Commercial	> 20 units per acre	Medium access to downtown Sub regional hub	10 minutes peak 20 minutes off peak
Suburban Center	Office Center Urban Entertainment Multiple Family Retail	> 50 units per acre	High access to downtown Sub regional hub	10 minutes peak 20 minutes off peak
Suburban Neighborhood	Residential Neighborhood retail Local Office	> 12 units per acre	Medium access to suburban center Access to downtown	20 minutes peak 30 minutes off peak
Neighborhood	Residential Neighborhood retail	> 7 units per acre	Low	25-30 minutes Demand responsive

Source: Dittmar and Ohland, 2004

# Greater Choice: Missing Middle Housing



Scale Between Single Family Housing and Stacked Flats



# The “Missing Middle” Building Types



Mansion Apartment: 6-8 units



Duplex



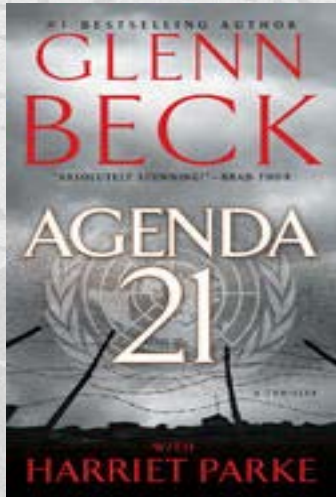
Fourplex



Bungalow Courts



# The Agenda 21 Conspiracy



“I was just a baby when we were relocated and I don’t remember much. Everybody has that black hole at the beginning of their life. That time you can’t remember. Your first step. Your first taste of table food. My real memories begin in our assigned living area in Compound 14.”

Just a generation ago, this place was called America. Now, after the worldwide implementation of **a UN-led program called Agenda 21**, it’s simply known as “the Republic.” There is no president. No Congress. No Supreme Court. No freedom.

There are only the Authorities.