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Metro | *Agenda*

Meeting: Metro Council Work Session
Date: Tuesday, March 29, 2011
Time: 2 p.m.
Place: Council Chambers

CALL TO ORDER AND ROLL CALL

2 PM	**1.**	**DISCUSSION OF AGENDA FOR COUNCIL REGULAR MEETING, MARCH 31, 2011/ADMINISTRATIVE/ CHIEF OPERATING OFFICER COMMUNICATIONS**	
2:15 PM	**2.**	**SEVEN RULES FOR SUSTAINABLE COMMUNITIES – <u>15 MINUTE PRESENTATION FOLLOWED BY Q&A UNTIL 3:00</u>**	**Patrick Condon, University of British Columbia**
3 PM	**3.**	**COUNCIL BRIEFINGS/COMMUNICATION**	

ADJOURN

Agenda Item Number 2.0

SEVEN RULES FOR SUSTAINABLE COMMUNITIES

Metro Council Work Session
Tuesday, March 29, 2011
Metro Council Chambers

METRO COUNCIL-DRAFT

Work Session Worksheet

Presentation Date: March 29, 2011 Time: 2:15 p.m. Length: 45 minutes (15 minutes of presentation followed by 30 minutes of discussion)

Presentation Title: Seven Rules for Sustainable Communities

Service, Office, or Center:
Planning and Development in conjunction with the Sustainability Center

Presenters (include phone number/extension and alternative contact information):

Patrick Condon, University of British Columbia Professor of Landscape Architecture and author of several books on sustainability, design and development. His latest book is Seven Rules for Sustainable Communities.

ISSUE & BACKGROUND

Purpose: The purpose of this agenda item is to prepare Council specifically for the April 1 Climate Leadership Summit with the Metro Policy Advisory Committee (MPAC), the Joint Policy Advisory Committee on Transportation (JPACT), other elected officials and business and community leaders. The April 1 summit is the next step in a series of discussions and actions surrounding climate change and land use and transportation.

Background: In 2009, the Legislature passed House Bill 2001, directing Metro to "develop two or more alternative land use and transportation scenarios" by January 2012 designed to reduce greenhouse gas (GHG) emissions from light-duty vehicles. The legislation also mandates adoption of a preferred scenario after public review and consultation with local governments, and local government implementation through comprehensive plans and land use regulations that are consistent with the adopted regional scenario. The Climate Smart Communities Scenarios effort is Metro's way of implementing the policies these mandates require while also enhancing the region's already identified policy aspirations and goals included in the 2040 Growth Concept. With Senate Bill 1059, the Legislature in 2010 expanded scenario planning to include other MPOs in Oregon.

Metro's Making the Greatest Place initiative includes a set of policies and investment decisions adopted in the fall of 2009 and throughout 2010. These policies and investments are focused on six desired outcomes for a successful region, endorsed by the Metro Council and MPAC in 2008: vibrant communities, economic prosperity, safe and reliable transportation, environmental leadership, clean air and water, and equity. Making the Greatest Place includes the adoption of the 2035 Regional Transportation Plan and the designation of urban and rural reserves. Together these policies and actions provide the foundation for better integrating land use decisions with transportation investments to create prosperous and sustainable communities and to meet state climate goals.

The presentation by Patrick Condon and the ensuing discussion will provide an opportunity for a detailed conversation about how pursuing our well-established strategies and policy goals can help us meet carbon reduction goals. In fact that is the

focus of his latest book, ***Seven Rules for Sustainable Communities: Design Strategies for the Post-Carbon World***. Condon writes specific, well-researched points accompanied by interesting historical context to create his argument: Changes in the design of our communities can achieve dramatic reductions in carbon emissions, improved livability, and the reduction of the cost of building and maintaining infrastructure systems.

Condon dedicates a chapter to each one of the seven rules:

- *Rule #1:* Restore the Streetcar City.
- *Rule #2:* Design an Interconnected Street System.
- *Rule #3:* Locate Commercial Services, Frequent Transit, and Schools within a Five-minute Walk.
- *Rule #4:* Locate Good Jobs Close to Affordable Homes.
- *Rule #5:* Provide a Diversity of Housing Types.
- *Rule #6:* Create a Linked System of Natural Areas and Parks.
- *Rule #7:* Invest in Lighter, Greener, Cheaper, Smarter Infrastructure.

Through a detailed description of each of his "rules," Condon demonstrates that it is indeed possible to create more compact, energy-efficient, pedestrian-friendly, and transit-served regions with green infrastructure systems that reduce resource consumption and pollution of all kinds.

Patrick Condon is a professor at the University of British Columbia's School of Architecture and Landscape Architecture and is senior researcher at the Design Center for Sustainability at UBC. He has practiced and taught in both the U.S. and Canada. He is the author of several books including *Design Charrettes for Sustainable Communities* (Island Press 2008).

OPTIONS AVAILABLE

Consider Condon's perspective and suggestions in scenarios policy discussions.

SUGGESTIONS

One chapter of Condon's book, "Restore the Streetcar City" can be found by following this link:
http://www.ubcpress.ca/books/pdf/chapters/2010/CondonSevenRulesForSustainableCommunitiesCh2.pdf

QUESTION(S) PRESENTED FOR CONSIDERATION

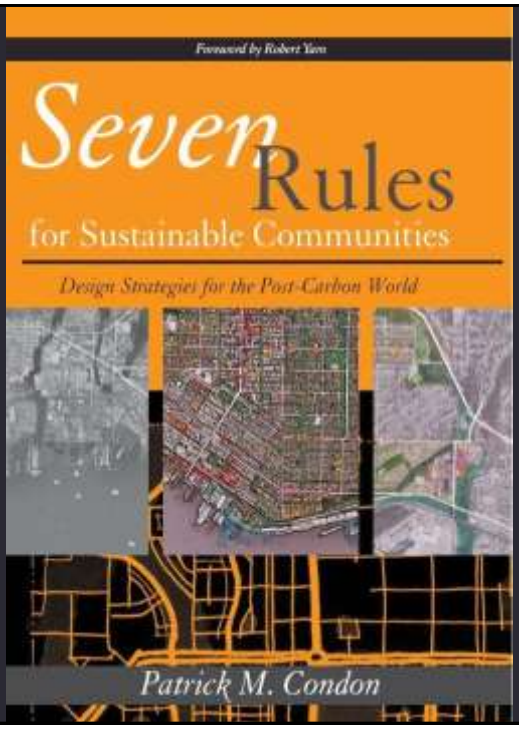
Possible questions for Patrick Condon:

1. How do your rules for sustainable cities apply to post World War II communities that are dependent on automobile transportation?
2. Can you recommend financial strategies for funding this work that you have deemed to be the most successful and explain why?
3. What development strategies have you seen that seem to offer the biggest bang for the buck? (Or the biggest impact for the effort required?)
4. What is your opinion on Metro's role in all this for the region?
5. What have you observed to be the biggest political challenges for implementing your rules? How were they overcome?

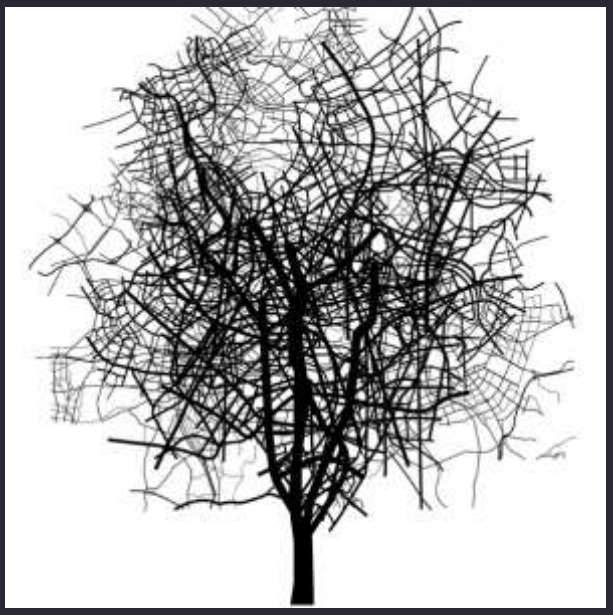
6. Are there success stories that you know of as a result of implementing some or all of your rules?

LEGISLATION WOULD BE REQUIRED FOR COUNCIL ACTION __Yes X__No
DRAFT IS ATTACHED ___Yes ___No

Materials following this page were distributed at the meeting.



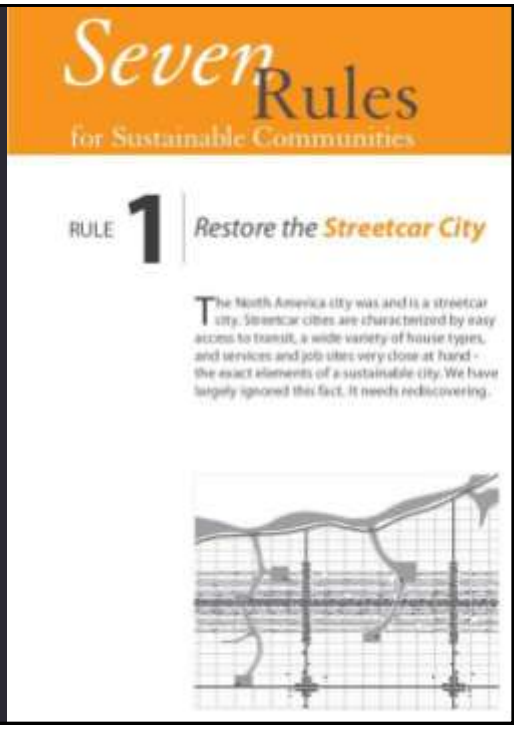
Ordering Principles for Sustainability:



We forgot that:

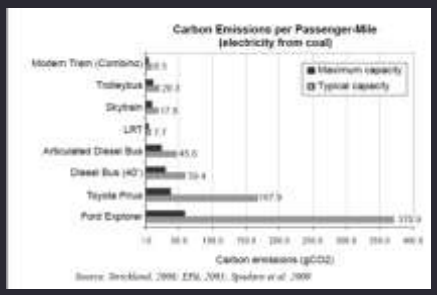
Every City over 5,000 people had Streetcars.

We forgot that: Most homes in the streetcar city were single family homes.

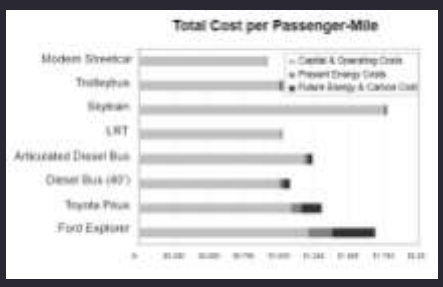


Restore the Streetcar City

To save the planet, transportation must be (nearly) zero GHG.



It also must be affordable.



We forgot that:

Interconnected streets provide many alternative routes if congested

Only two types of streets:

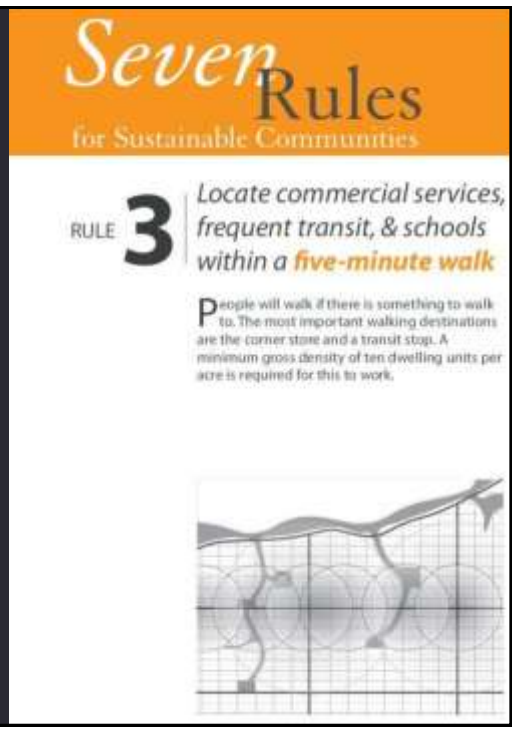
Residential streets

Streetcar arterials

We forgot that:

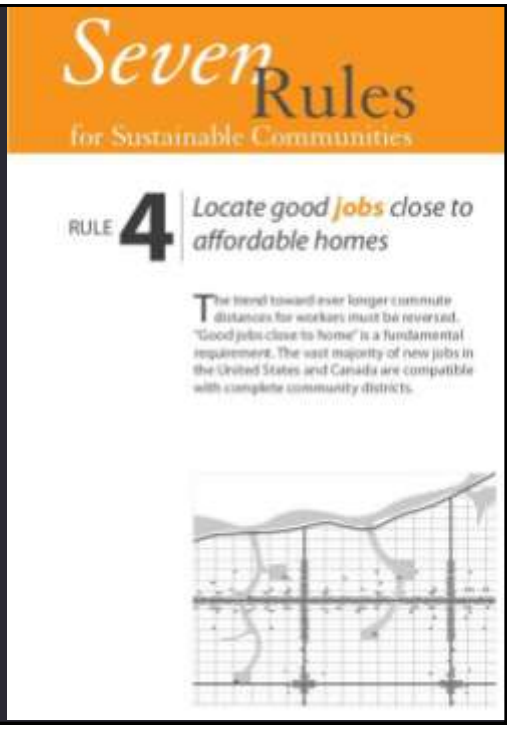
Five minute walking distance is a key feature of the streetcar city.

In the streetcar city the five minute walk merges into continuously accessible corridors.



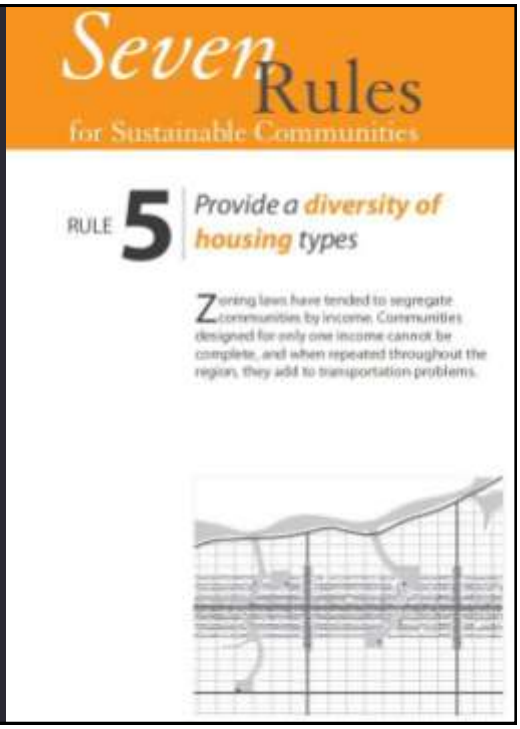
We forgot that:

The Streetcar city concept allows for many jobs close to corridors.



We accept that:

For slower transit to make sense affordable housing must be more evenly distributed in regions.



We know that:

Preserved Nature provides a natural interface to the streetcar city grid

Why?

For zero impact

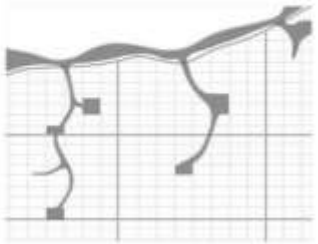
For access to nature

To bound and protect neighborhoods

Seven Rules
for Sustainable Communities

RULE 6 *Create a linked system of natural areas and parks*

Keeping our streams and rivers healthy requires a rethinking of urban drainage systems and stream protection. Maintaining the integrity of these systems must be a first design move when planning new communities. Far from protecting these systems through restriction, these systems must form the public space armature of new and restored communities.



We forgot that:

We spend too much on infrastructure.

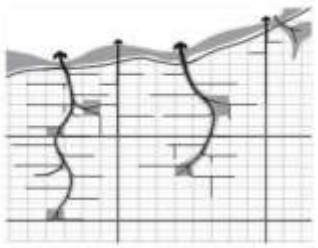
Every dollar's worth of pavement produces a dollars' worth of environmental damage.

Work with natural systems not against them.

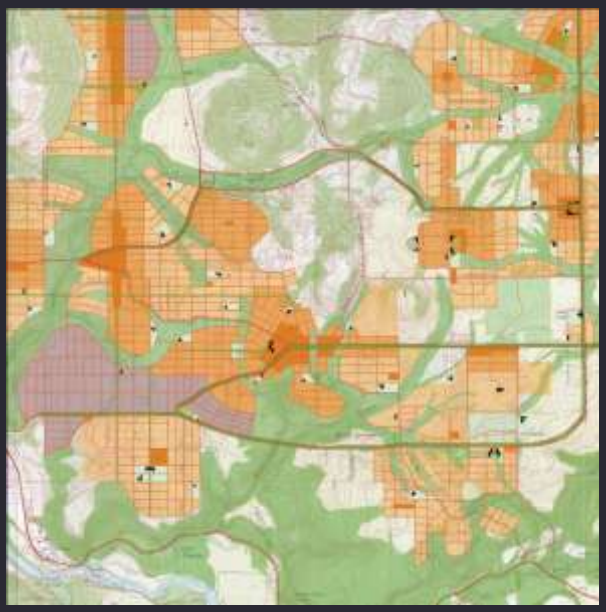
Seven Rules
for Sustainable Communities

RULE 7 *Invest in lighter, greener, cheaper, and smarter infrastructure*

Suburban developments have at least four times more infrastructure per dwelling unit than do walkable streetcar neighbourhoods. Exaggerated municipal standards for roads and utilities cost too much to build and maintain, and they destroy watershed function. Smarter, cheaper, and greener strategies are required.



Seven Principles - Damascus Design Workshop



Streetcar City

City of North Vancouver 100 Year Sustainability Vision

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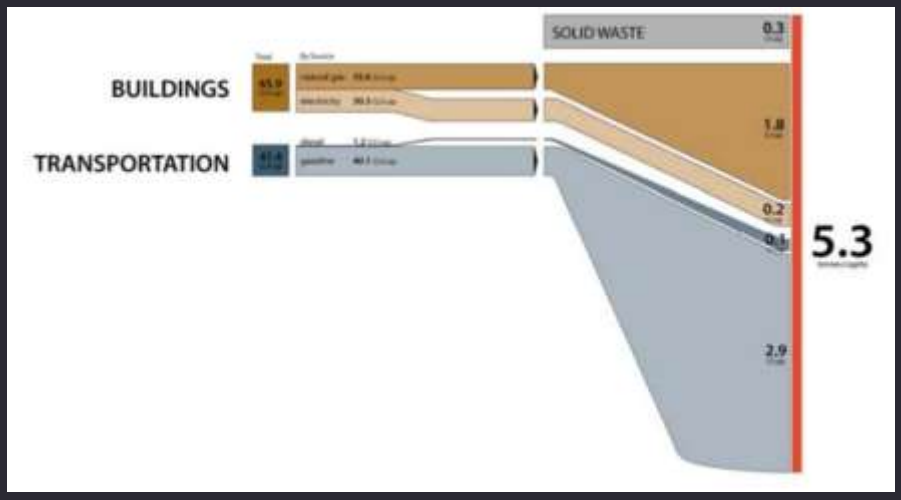

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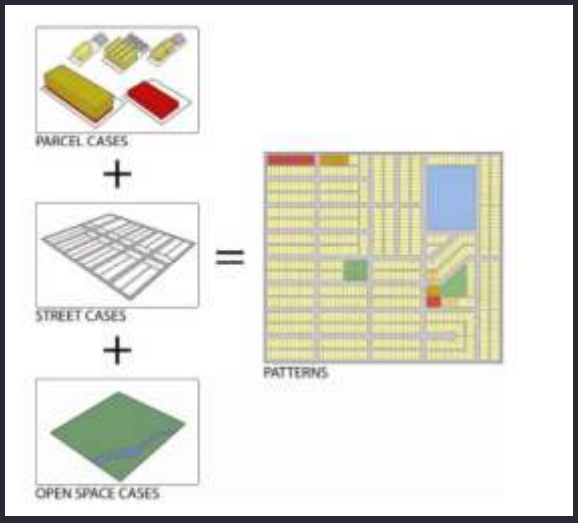

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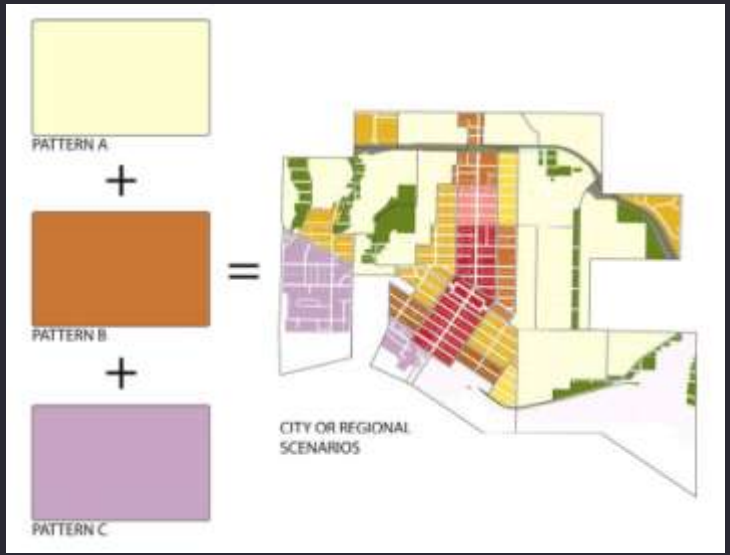

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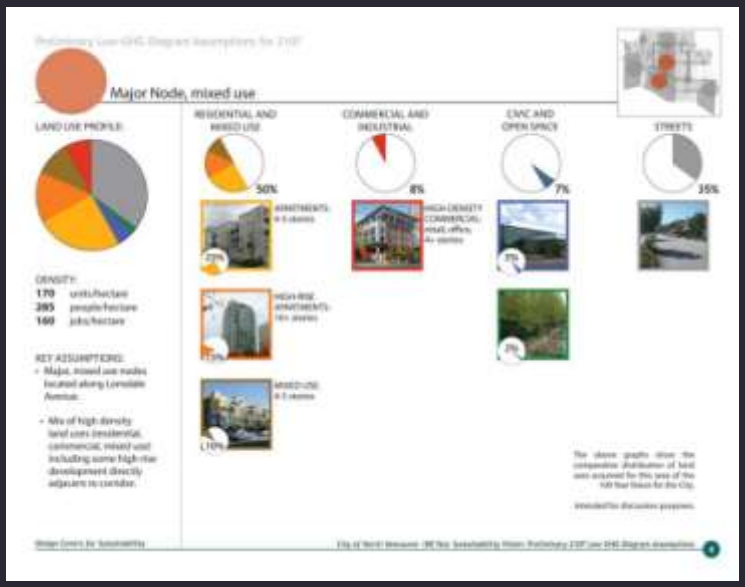

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Table 3: Population and Employment – Baseline, Preliminary and Charrette Scenarios

Population Statistics	**2007 Baseline**	**Preliminary 2050 Scenario**	**Preliminary 2107 Scenario**	**Charrette 2107 Scenario**
Population	46311	72294	138302	141270
Employment Population	31760	46660	77697	94490
Population Density (persons/hectare)	39	61	117	119
Total Households	22098	34322	75130	79563
Residential Density (units/hectare)	19	29	63	67
Assumed Annual Growth Rate (%) (2007 – Target Date)	n/a	1.1	1.1	1.1

Table 4: Residential Dwellings – Baseline, Preliminary and Charrette Scenarios

Residential Dwellings	**2007 Baseline**			**Preliminary 2050 Scenario**			**Preliminary 2107 Scenario**			**Charrette 2107 Scenario**		
	# units	% of total	% change	# units	% of total	% change	# units	% of total	% change	# units	% of total	% change
Detached Single Family	4927	22	n/a	2774	8	-44	1295	2	-74	762	1	-85
Attached Duplex	914	4	n/a	457	1	-50	182	0	-80	0	0	-100
Attached Rowhouse	1360	6	n/a	2528	7	86	5752	8	323	3575	4	163
Apartment <5 stories	10261	46	n/a	20277	59	98	50017	67	387	45223	57	341
Apartment >5 stories	4636	21	n/a	8286	24	79	17893	24	286	30005	38	547
Total	*22,098*	*100*		*34,322*	*100*	*55*	*75,130*	*100*	*240*	*79,565*	*100*	*260*

Streetcar City

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Table 5: Building Energy and Emissions Summary – Baseline and Preliminary Scenarios

Energy and Emissions	**2007 Baseline**			**2050 Preliminary Scenario**				**2107 Preliminary Scenario**			
	energy, electricity (GJ)	energy, natural gas (GJ)	emissions (t)	energy, electricity (GJ)	energy, natural gas (GJ)	energy, renewable (GJ)	emissions (t)	energy, electricity (GJ)	energy, natural gas (GJ)	energy, renewable (GJ)	emissions (t)
Residential	652,709	567,150	33,772	276,902	128,143	247,100	8,816	496,556	1,500	189,471	73
Single Family/Duplex	*239885*	*386816*	*23805*	*87964*	*105183*	*0*	*3779*	*53412*	*0*	*0*	*0*
Rowhouse	*38585*	*26988*	*1552*	*41299*	*3574*	*40812*	*553*	*83994*	*0*	*65227*	*0*
Apartment <5 stories	*199713*	*96664*	*6479*	*167719*	*19384*	*116417*	*2447*	*358756*	*1500*	*45515*	*73*
Apartment >5 stories	*137526*	*71532*	*4705*	*0*	*0*	*87837*	*0*	*0*	*0*	*78729*	*0*
Commercial	489,772	707,932	39,181	270,688	75,456	293,433	6,233	416,370	0	89,215	0
Institutional	209,516	194,350	11,441	60,829	11,318	45,272	1,112	84,713	0	7,890	0
Industrial	30,984	178,430	8,210	18,647	0	60,599	170	14,491	0	29	0
Total	*1,402,841*	*1,647,851*	*93,574*	*635,876*	*214,915*	*646,404*	*16,331*	*972,130*	*1,500*	*286,605*	*73*

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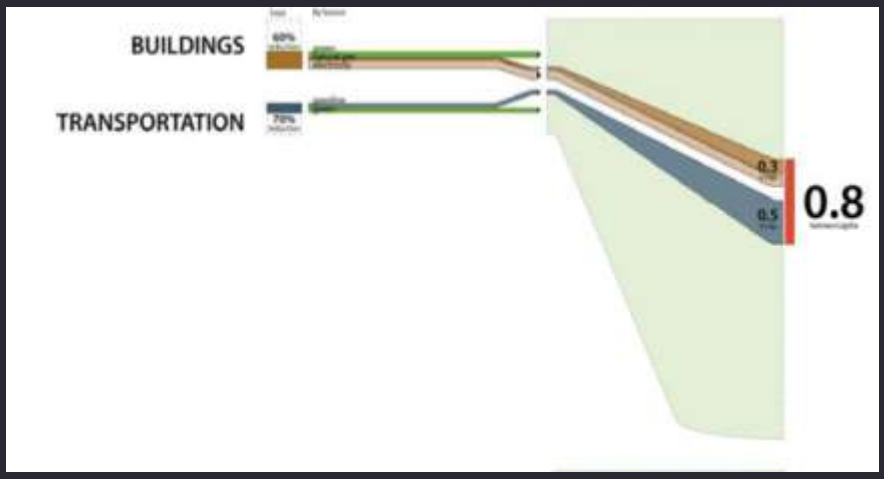

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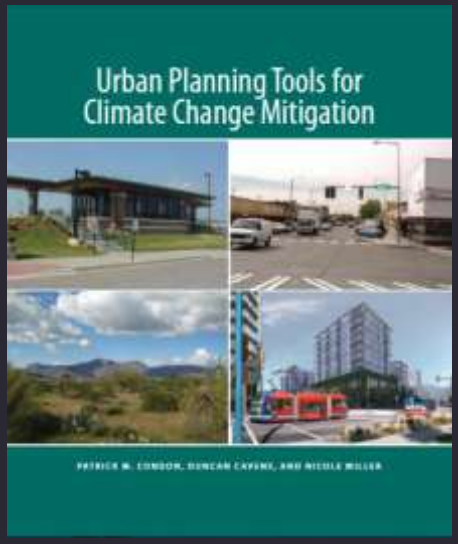
Planning for Climate Change

Modeling Tools for Public Officials.



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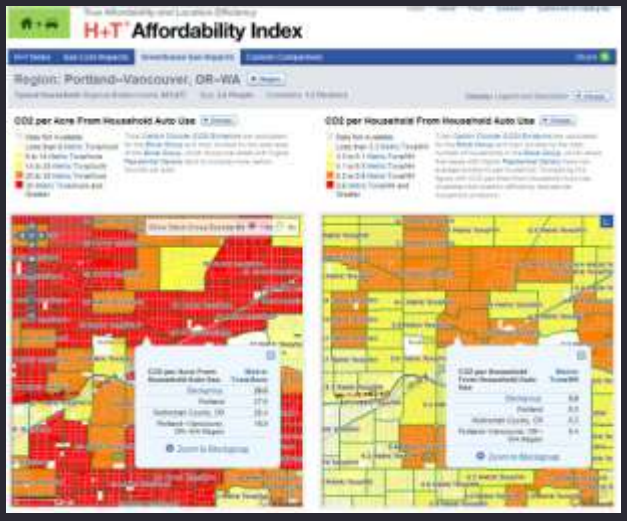

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Planning for Climate Change

Modeling Tools for Public Officials.

Thank you.

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Streetcar City

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Basic Design Principles for Sustainable Cities:

Restore the Streetcar City

“Tax Lots” were economic place holders.

In Vancouver it took 80 years to realize planned density on streetcar arterials.

Design an Interconnected Street System

Intersections impossible to cross on foot.

Big Box magnets at overloaded intersections.

400% more traffic through intersection.

60% more pedestrian fatalities.

Different Dwelling Types on the Same Street.

Density doesn't need to look dense.

Vancouver architects have re learned this lesson.

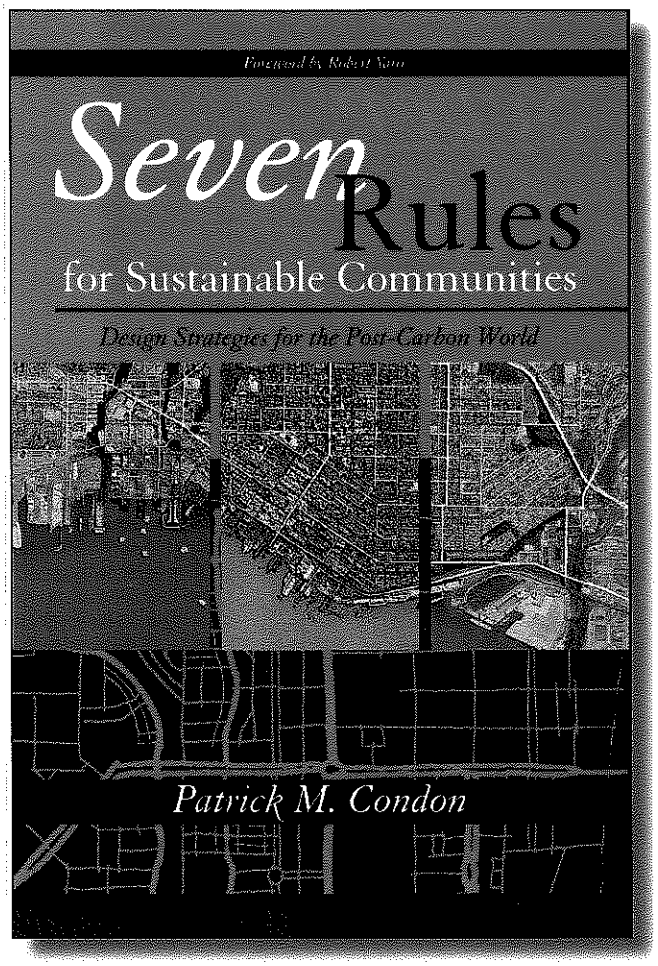
5458 Larch Street

Project is 28 DU per acre. One level of underground parking.

Locate Good Jobs Close to Home

Speeds on congested freeways now approaching jogging pace.

The quest for speed is hopeless.



Seven Rules for Sustainable Communities

Design Strategies for the Post Carbon World

Patrick M. Condon

Questions of how to green the North American economy, create a green energy and transportation infrastructure, and halt the deadly increase in greenhouse gas buildup dominate our daily news. Related questions of how the design of cities can impact these challenges dominate the thoughts of urban planners and designers across the U.S. and Canada. With admirable clarity, Patrick Condon discusses transportation, housing equity, job distribution, economic development, and ecological systems issues and synthesizes his knowledge and research into a simple-to-understand set of urban design rules that can, if followed, help save the planet.

No other book so clearly connects the form of our cities to their ecological, economic, and social consequences. No other book takes on this breadth of complex and contentious issues and distills them down to such convincing and practical solutions. And no other book so vividly compares and contrasts the differing experiences of U.S. and Canadian cities.

Of particular new importance is how city form affects the production of planet-warming greenhouse gases. The author explains this relationship in an accessible way, and goes on to show how conforming to seven simple rules for community design could literally do a world of good. Each chapter in the book explains one rule in depth, adding a wealth of research to support each claim. If widely used, Condon argues, these rules would lead to a much more livable world for future generations—a world that is not unlike the better parts of our own.

Patrick M. Condon is a Professor at the University of British Columbia, and Senior Researcher at the Design Centre for Sustainability at UBC. He is the author of numerous books including *Design Charrettes for Sustainable Communities* (Island Press).

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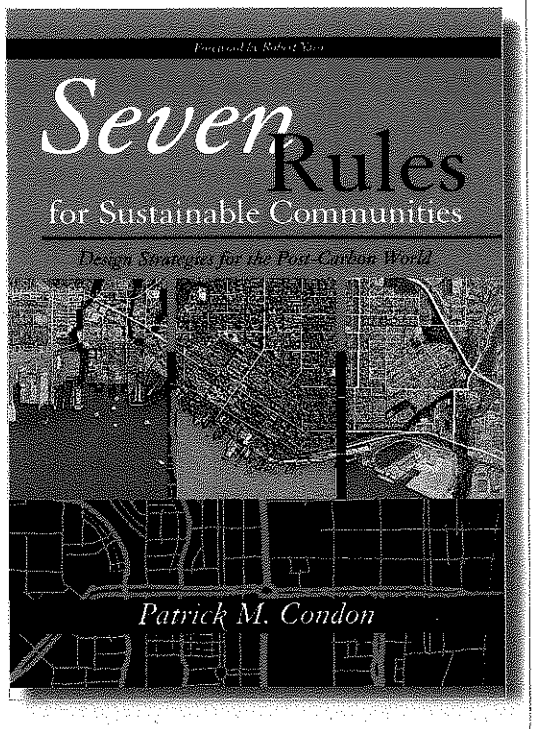

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