City of Surrey
Sustainability Charter

Integrated Approaches to Climate Protection
FCM Webinar – 04 November 2009

Surrey's Sustainability Charter is:

- The "overarching" policy document
- The Vision of a Sustainable City
- A set of Goals that will guide the City's future actions and decisions
- An Action Framework based on:
  - 3 pillars of Sustainability
  - 3 spheres of influence
  - 3 time frames - short, medium and long term
- Detailed Scope Items and Immediate Actions

The Sustainability Charter
Definition
What Is Sustainability?
Vision
Of A Sustainable Surrey
Goals
High Level and Specific
What Do We Want To Achieve?
Framework
3 Pillars of Sustainability, 3 Spheres of Influence, and 3 Time Frames
For Achieving Sustainability
The Scope of Sustainability
(A Living Document)
Specific Actions to Support Sustainability
The Implementation Strategy
(Annual Action Plans and Reporting)

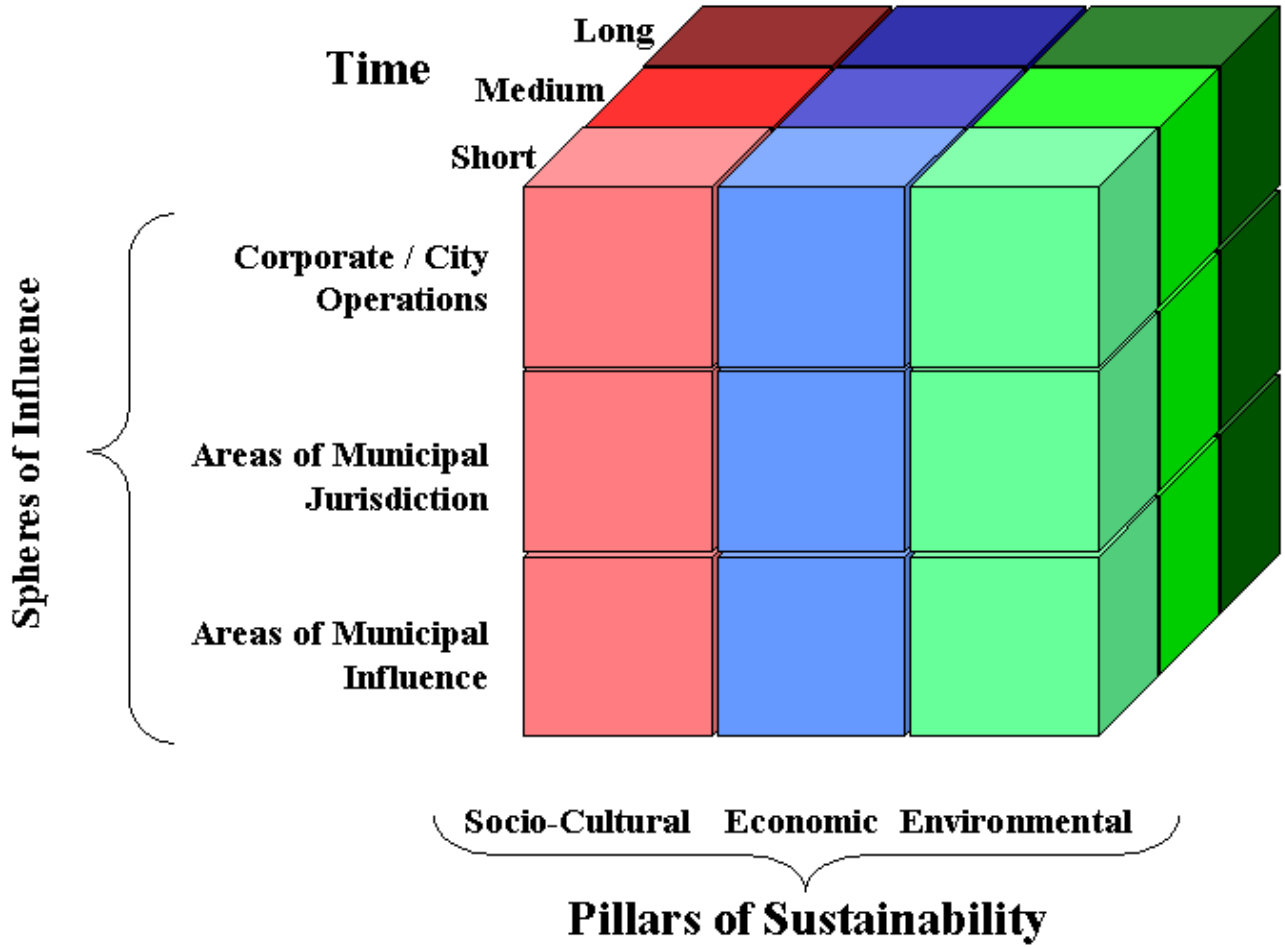
Council has defined Sustainability as:

"Meeting the needs of the present generation in terms of socio-cultural systems, the economy and the environment while promoting a high quality of life but without compromising the ability of future generations to meet their own needs."

Surrey's Vision of Sustainability

- Protection of the natural environment, rich tree canopy, enhancement of its natural areas and biodiversity
- A safe City with a vibrant City Centre/liveable communities
- **Sustainable design, "green" buildings and infrastructure**
- **Transportation choice**
- "Triple Bottom Line" accounting
- **Alternative energy sources, carbon neutrality, no net impact from waste**
- Local employment opportunities, "green" businesses,
- A sustainable agricultural base and local food security
- Services promote wellness and active living
- Cultural diversity, tolerance, social connections and a sense of belonging

Action Framework - The Sustainability Cube



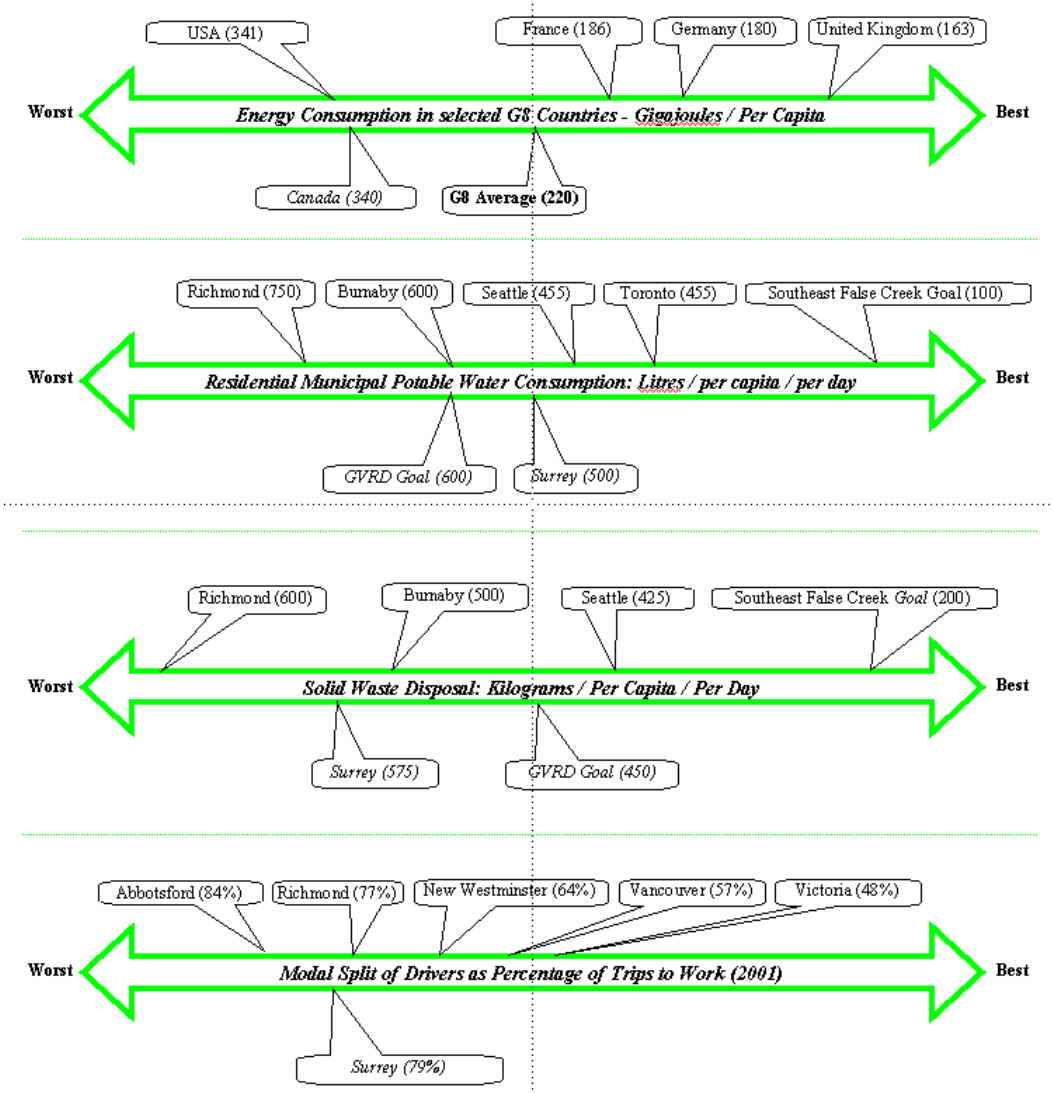
Relationship of Charter to Other Policies

Sustainability Charter

- Parks, Recreation and Culture 10 Year Strategic Plan
- Official Community Plan
- Transportation Strategic Plan
- Climate Action Plan
- Employee Trip Reduction Program
- Green Procurement Policy
- City Centre Plan Update
- Housing Action Plan
- Employment Lands Strategy
- Ecosystem Management Plan
- Plan for Social Well-Being
- Crime Reduction Strategy
- Subdivision and Development Bylaw
- Business License Bylaw

The Implementation Strategy will:

1. Prioritize Scope items
2. Establish indicators and targets
3. Identify roles, responsibilities and resources needed
4. Outline plans, policies, practices and procedures to create a Sustainable City
5. Set timelines for implementation
6. Establish monitoring and reporting mechanisms



<- Energy consumption

Environmental Indicators and Targets

<- Modal split

Council Support for Climate Action

- FCM Municipal Leaders' Resolution On Climate Change
- FCM Partners for Climate Protection (PCP) program
- FCM 20% Club, a group of municipal and regional governments across Canada working together to reduce the amount of greenhouse gas emissions they produce
- Signatory to BC’s Climate Action Charter, committing to:
  - Carbon neutrality in internal operations by 2012
  - Measuring and reporting on community greenhouse gas emissions profile
  - Creating complete, compact, more energy efficient communities

Sustainability Charter Scope Items

G2 Measure progress using targets and indicators
SC1 Personnel Policies and Staff Training
SC3 Sustainable Procurement Policies
SC6 Accessible and appropriately located services within the City
EC7 Sustainable Building and Development Practices
EC8 Energy Security
EC15 Building/Energy Codes and Standards
EC16 Increased Transit
EN1 Energy Efficiency
EN3 Vehicle Fleet Programs
EN4 Employee Trip Reduction Program
EN5 Green Procurement Policies and Practices
EN8 Sustainable Engineering Standards and Practices
EN9 Sustainable Land Use Planning and Development Practices
EN10 Integrated Community Energy Master Plans
EN11 Surrey's Commitment to the Climate Change Action Plan

EN11 - Surrey's Commitment to the Climate Change Action Plan

1. Develop strategies and actions to achieve goals of B.C.'s Climate Action Charter;
2. Expedite the completion of the five milestones in the Federation of Canadian Municipalities' (FCM) Partners for Climate Protection process, including:
   a. Inventory of corporate/community Greenhouse Gases
   b. Targets and timelines for GHG reductions
   c. Local action plan that minimizes GHGs through best practices in each of the three spheres of influence
   d. Implementing the local action plan
   e. Monitoring action plan progress and reporting results.
3. Create an adaptation strategy for climate change impacts

South Surrey Rec Centre - Geoexchange

Semiahmoo Library, RCMP Station - LEED

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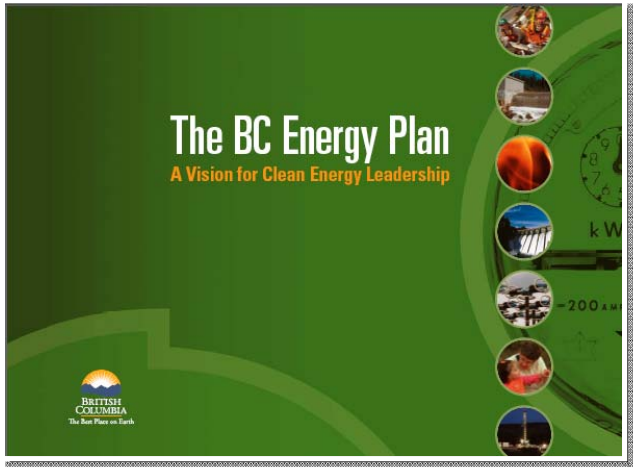
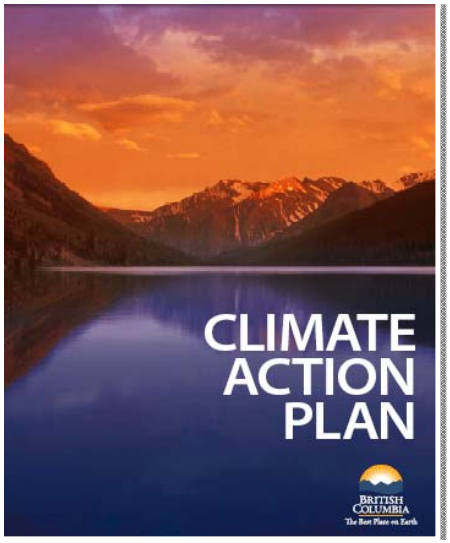
BC Provincial Initiatives





Western Climate Initiative

BC Provincial Legislation

Bill 44 – 2007, the Greenhouse Gas Reduction Targets Act, established targets for reducing greenhouse gas emissions in British Columbia:

- At least 33% less than 2007 emissions by 2020
- At least 80% less than 2007 emissions by 2050

Bill 27 - 2008, the Local Government (Green Communities) Statutes Amendment Act, requires municipalities, by 31 May 2010, to include the following in their Official Community Plans (OCPs):

- Targets for greenhouse gas emission reductions
- Policies and actions to achieve these targets.

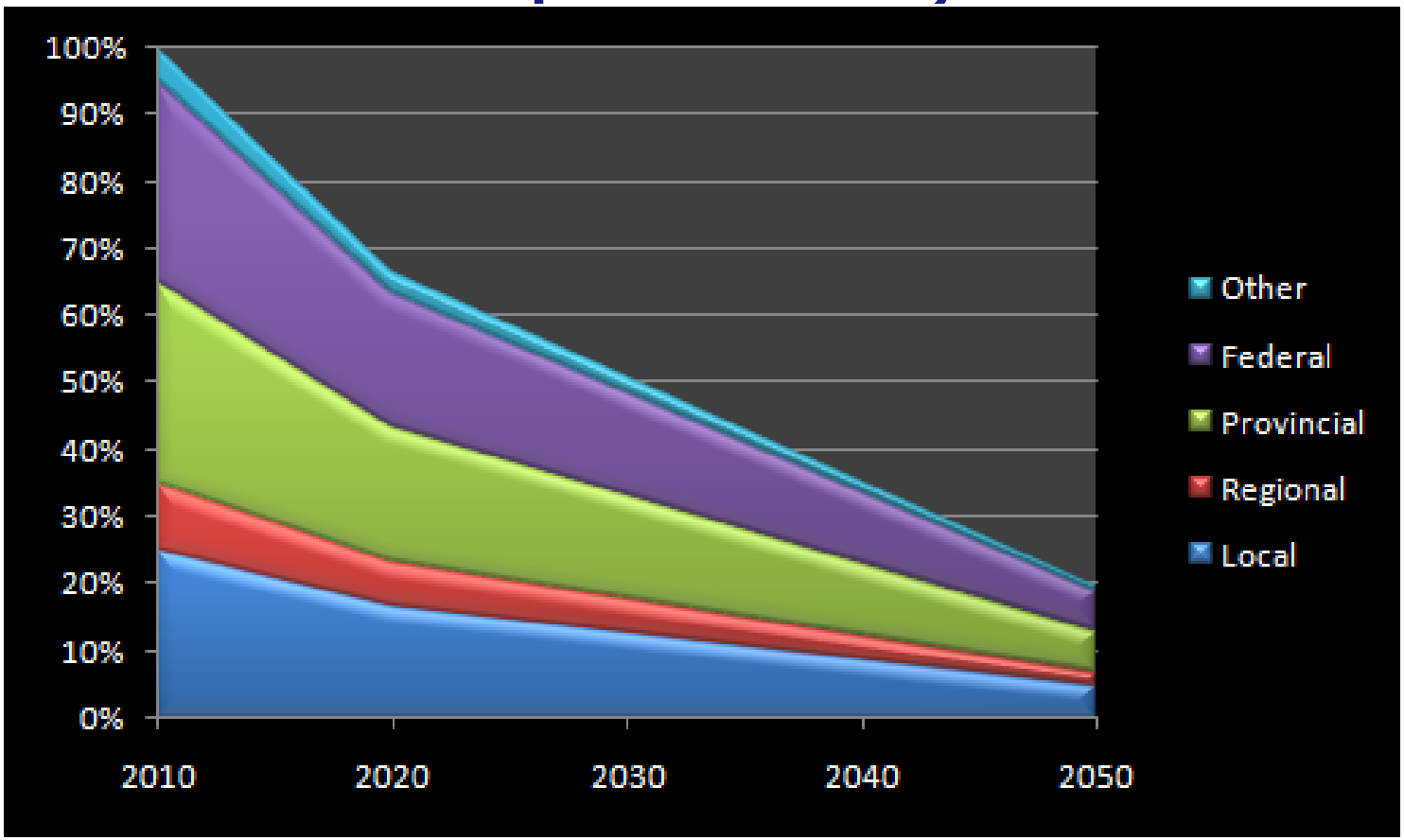
Proposed OCP GHG Directions

- GHG Reduction Targets. Seek to reduce **per capita** GHG emissions from **non-agricultural** and **non-industrial** activities below 2007 levels by:
  - 33% before 2020
  - 80% before 2050
- Provisos:
  - Achievement of targets is a joint responsibility
  - Local governments *influence* ~1/2 of GHGs
  - Have direct *jurisdiction* only over ~1/4 of GHGs
  - Remainder of emission reductions led by external agencies: federal, provincial, regional, others (e.g., NGOs, private sector)

A Shared Responsibility…

- **Federal**, including fuel efficiency standards
- **Provincial**, including building codes, farming practices and transportation facilities, such as HOV lanes on provincial highways
- **Regional**, including the provision of utilities, such as waste management, air quality management for industrial emitters; and transportation services, such as public transit
- **Others**, including standards defined by the private sector and NGO organizations, e.g., LEED, BuiltGreen

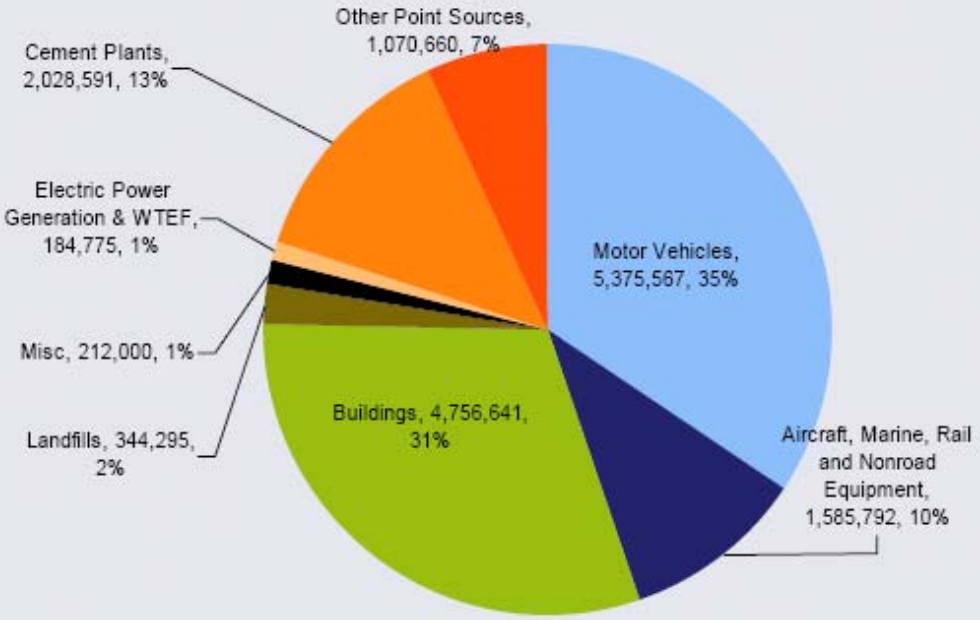
The Wedge Approach – Shared Responsibility



The Regional Role…

SUSTAINABLE REGION INITIATIVE . . . TURNING IDEAS INTO ACTION

2005 Regional GHG Emissions



TOTAL = 15.6 million tonnes

Corporate emissions (including solid waste) = ~2%

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PR	SR	S	I	?, ?
Primary Responsibility	Shared Responsibility	Supporting Role	Input into process	Uncertain

LAND-USE

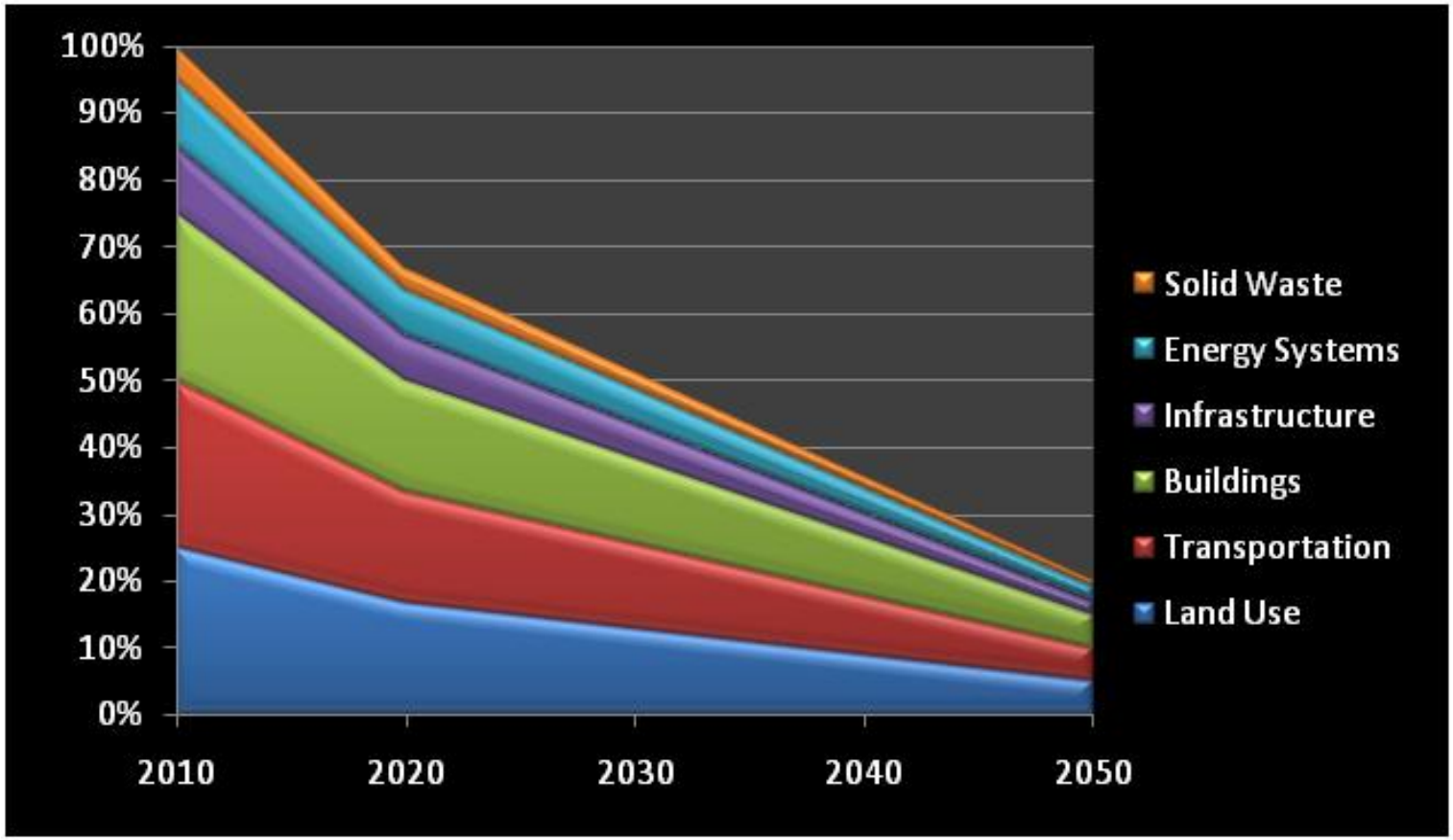
Policy	Source	STAKEHOLDERS: Federal	Prov.	Metro Vanc.	Local Gov't	BC Hydro / Terasen / Translink	Provincial Support Activities/Funding
$14 Billion Dollar Provincial Transit Plan	BCCAP		PR			PR	
Cycling infrastructure partnerships	BCCAP		PR	S	PR		Cycling Infrastructure Partnership Program - http://www.th.gov.bc.ca/BikeBC/CIPP.html ($31 Million infrastructure program). Bike BC funding brings the total cycling investment the Province has made since 2001 to $114 million. That investment has helped build more than 220 kilometres of cycling paths in over 50 communities across B.C.
Build bicycle facilities; zoning bylaws for bicycle parking; street design; education and awareness campaigns, etc	REAC-SCP Member						
LocalMotion	BCCAP		PR	S	SR		LocalMotion - 26 communities across British Columbia have received $18.9 million in the first round of the Province's LocalMotion program, to build bicycle paths, trails and walkways, support community playgrounds and improve accessibility for people with disabilities.
Electric Vehicle Infrastructure development	REAC-SCP Member						
Support for Car-sharing; Priority Parking; Queue Jumper and HOV lanes	REAC-SCP Member				SR		
Develop Compact Mixed-Use (energy efficient and transit oriented) Communities	BCCAP & MV's Draft Regional Growth Strategy	S	SR	SR	PR	Translink -SR	
Community Action on Energy Efficiency Program	BCCAP		PR	S?	SR		Community Action on Energy and Emissions (CAEE) Program - providing $10,000 to $75,000 grants to local governments and First Nations communities to undertake a range of innovative energy and ghg emissions reduction initiatives - approx 55 communities supported to-date.
Smart Development Partnership Program	BCCAP		PR	S	SR		Smart Development Partnership Funding Program - a MCD initiative aimed at improving the land use planning and development system in BC.
BC Local Government Grants Program	BCCAP		PR	S	SR		
Support for utilization of Waste Energy and District Heating Systems	MV's Draft Regional Growth Strategy	S	S	SR	PR	BCH/Tera - S	
Trees for Tomorrow - Substantially increase tree planting efforts and promote urban forestry and new community gardens	BCCAP		PR?	SR	SR		Trees for Tomorrow - http://www.treesfortomorrow.gov.bc.ca/ and Planting Our Future application program - http://www.treesfortomorrow.gov.bc.ca/resources/PlantingourFuture.pdf
Forests for Tomorrow	BCCAP	?	PR	S	S?		
Accelerating forest growth	BCCAP		PR	?	?		
Developing green city farms (reduce emissions from long-distance transport)	BCCAP		SR	SR	SR		
Net -zero deforestation (as it relates to land-use change)	BCCAP		PR	SR	SR		
Eco-industrial Networking	REAC-SCP Member		S	SR	SR		

PR	SR	S	I	?, ?
Primary Responsibility	Shared Responsibility	Supporting Role	Input into process	Uncertain

LAND-USE

		STAKEHOLDERS			
Policy Actions	Source	Prov.	Metro Vanc.	Local Gov't	BC Hydro Terasen Translink
Green Communities (Develop Compact Mixed-Use, energy efficient and transit oriented, Communities)	BCCAP & MV's Draft Regional Growth Strategy	SR	SR	PR	Translink -SR
$14 Billion Dollar Provincial Transit Plan (and Transport 2040)	BCCAP + REAC-SCP	PR	S	SR	PR - Translink
Smart Development Partnership Program	BCCAP	PR	S	SR	
LocalMotion	BCCAP	PR	S	SR	
Trees for Tomorrow (Substantially increase tree planting efforts and promote urban forestry and new community gardens)	BCCAP	PR?	SR	SR	

The Wedge Approach – Municipal Responsibility



What we are doing

Land Use and Development. Mixed Use, compact, Transit Oriented Development. "Sustainability layers" in plans, Sustainable Development Checklists

Transportation. Rapid Transit/Frequent Transit Network, Bicycle Network. Pedestrian/Bicycle Plans. Fleet plans.

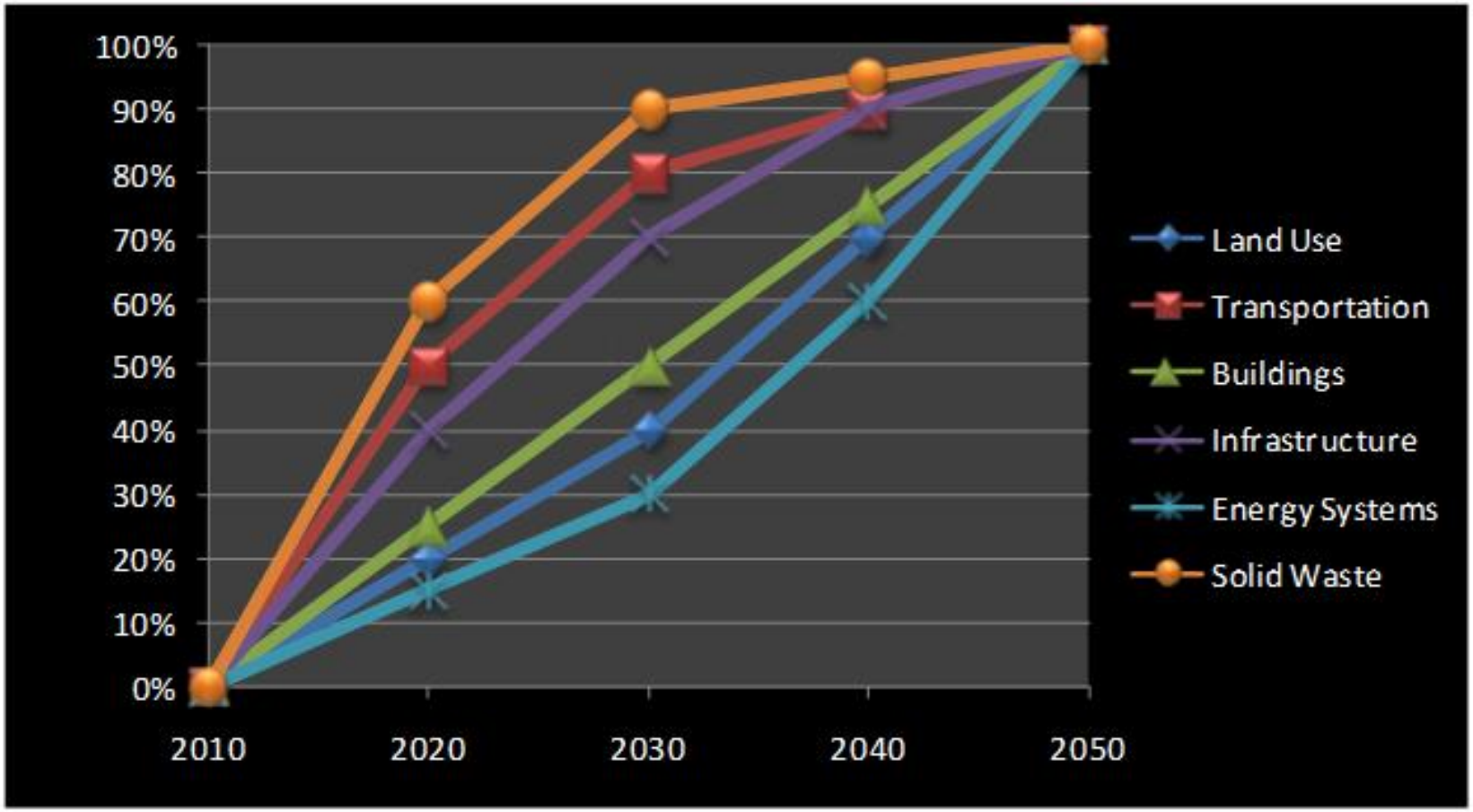
Energy. Integrated Community Energy Master Plans. Geoexchange heating, District Energy strategy.

Infrastructure and Utilities. Sewer Heat Recovery studies, LED traffic signals.

Buildings and Housing. LEED standards, energy efficiency workshop

Solid Waste. Landfill methane capture, composting

Municipal time frames for action



Case Study - City Centre Plan Update… Applying sustainability and climate change objectives

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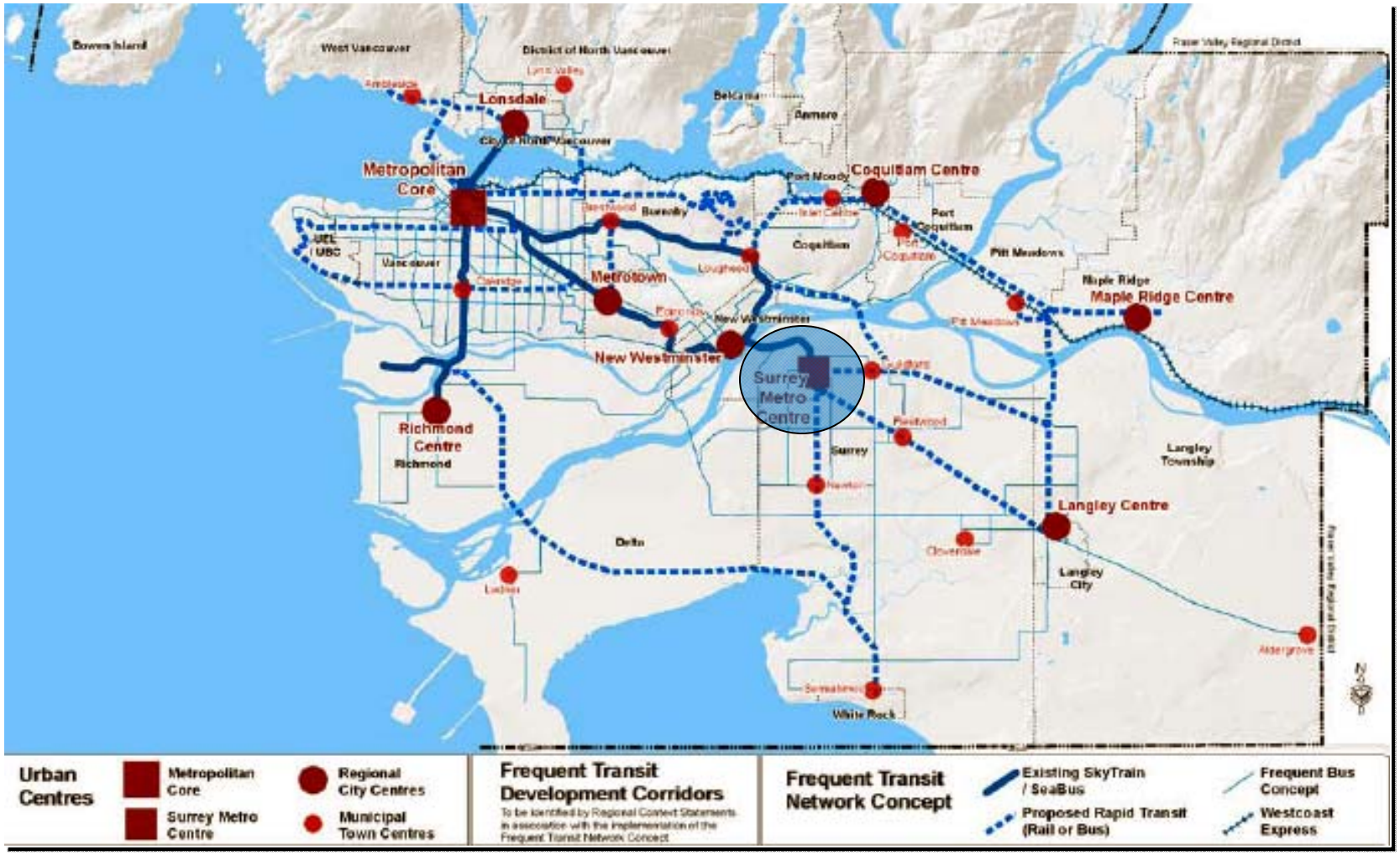

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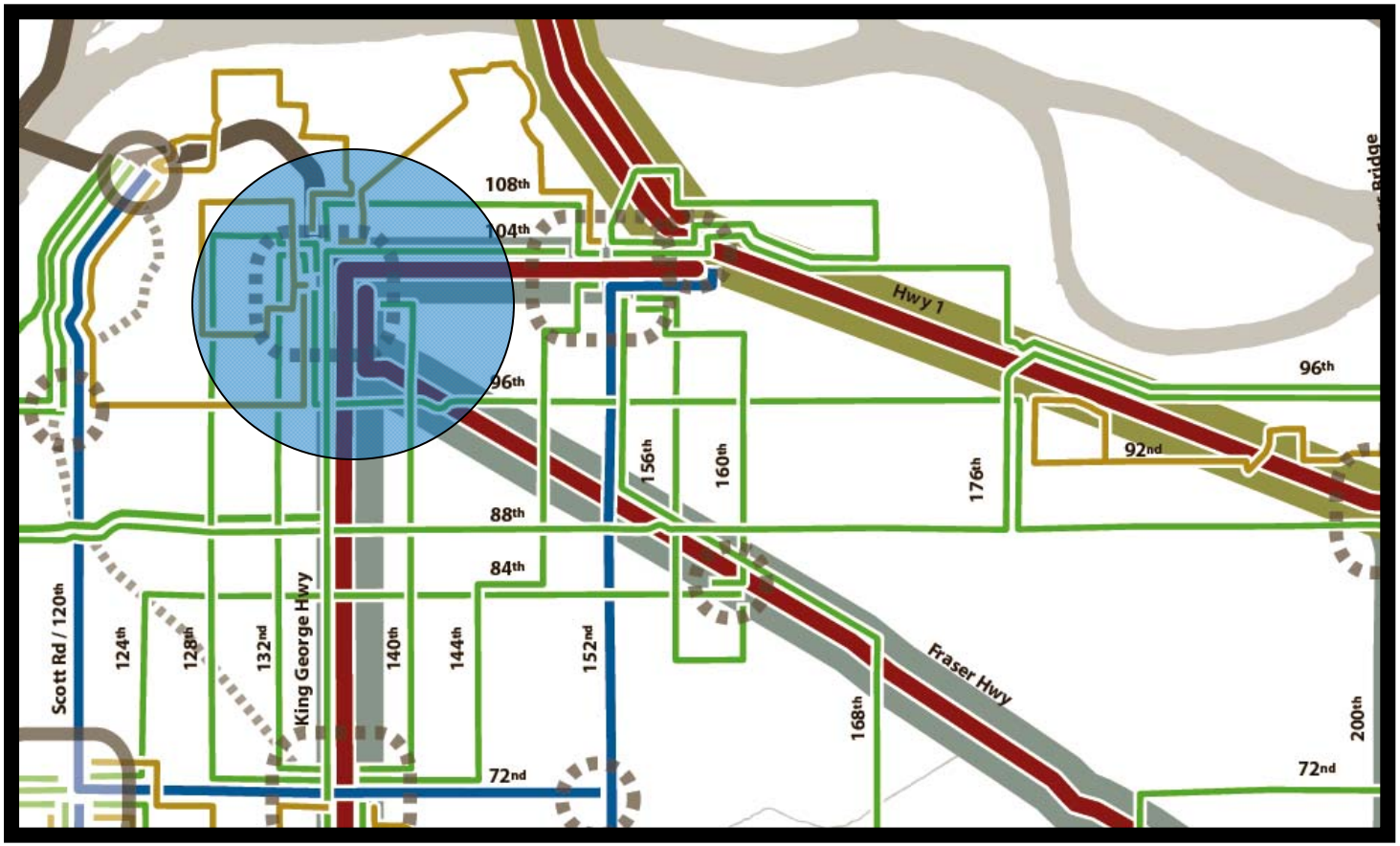
Transit Oriented Development



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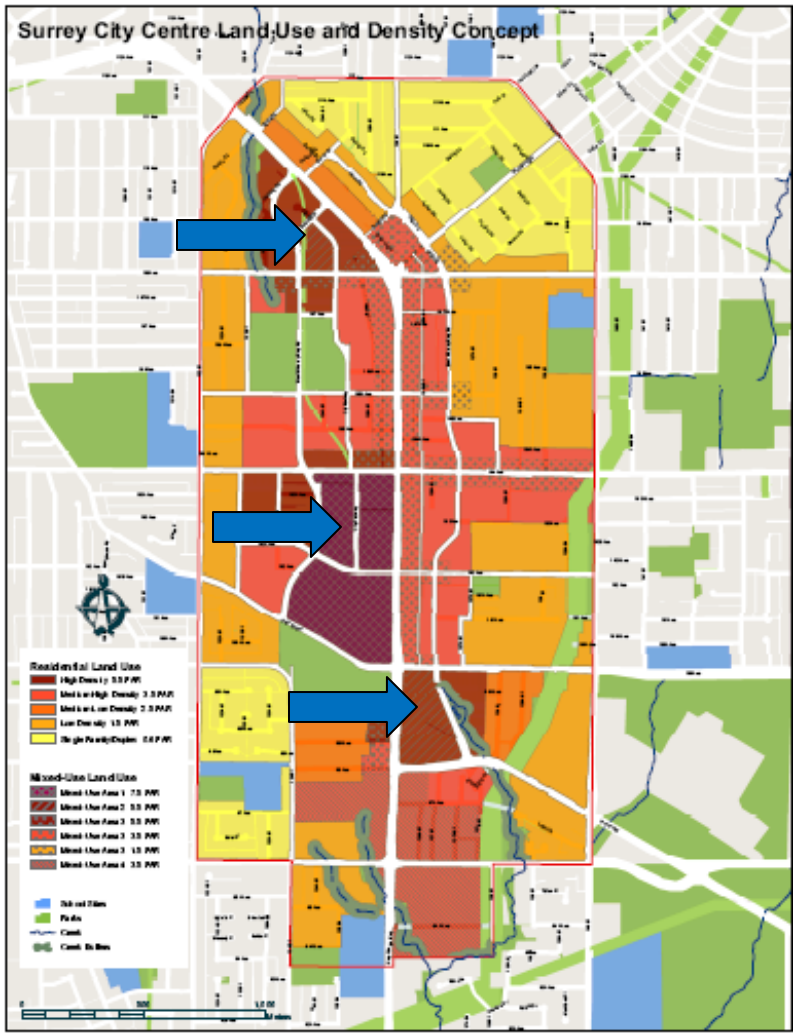

A plan built around higher density, transit-oriented nodes and corridors with lower-density, family oriented areas nearby

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Density

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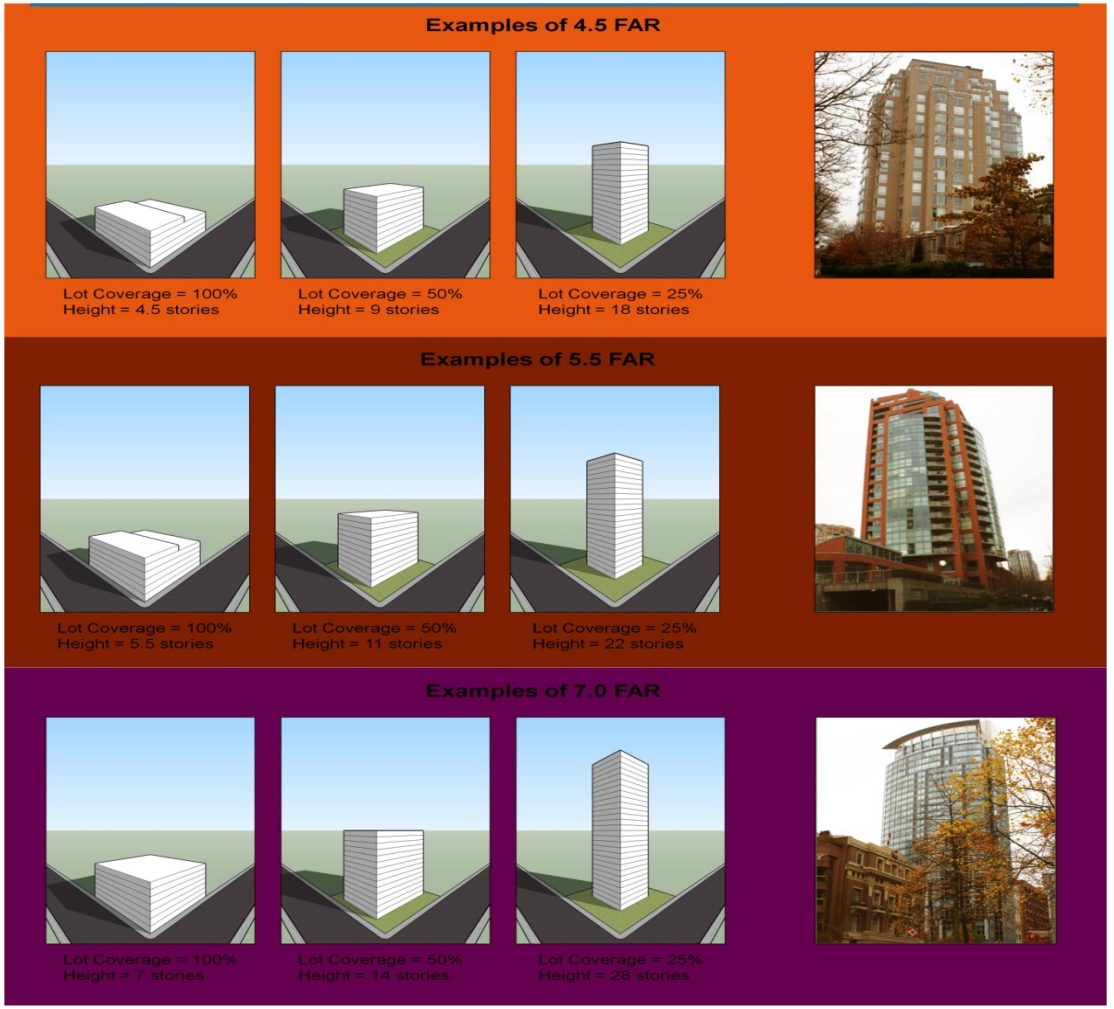
Density



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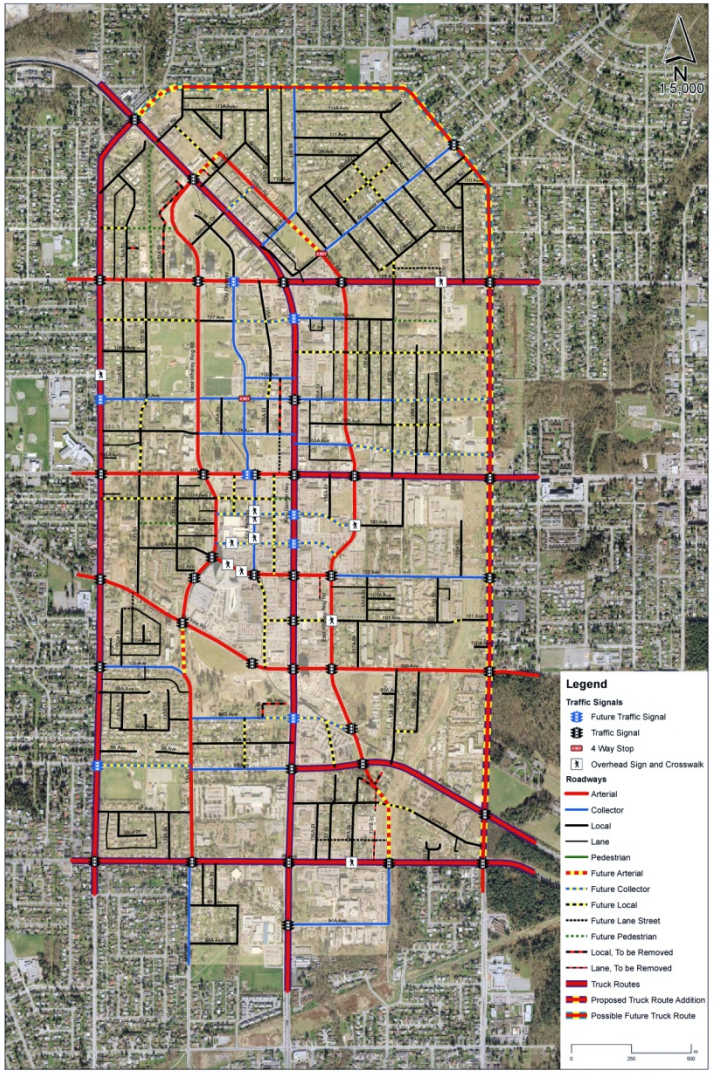


Changing the street grid from long, car-oriented blocks to short, pedestrian-oriented blocks

Proposed Cross-Section

King George Hwy S. of 102 Ave with BRT | 1

Proposed Cross-Section

King George Hwy N. of 102 Ave | 2

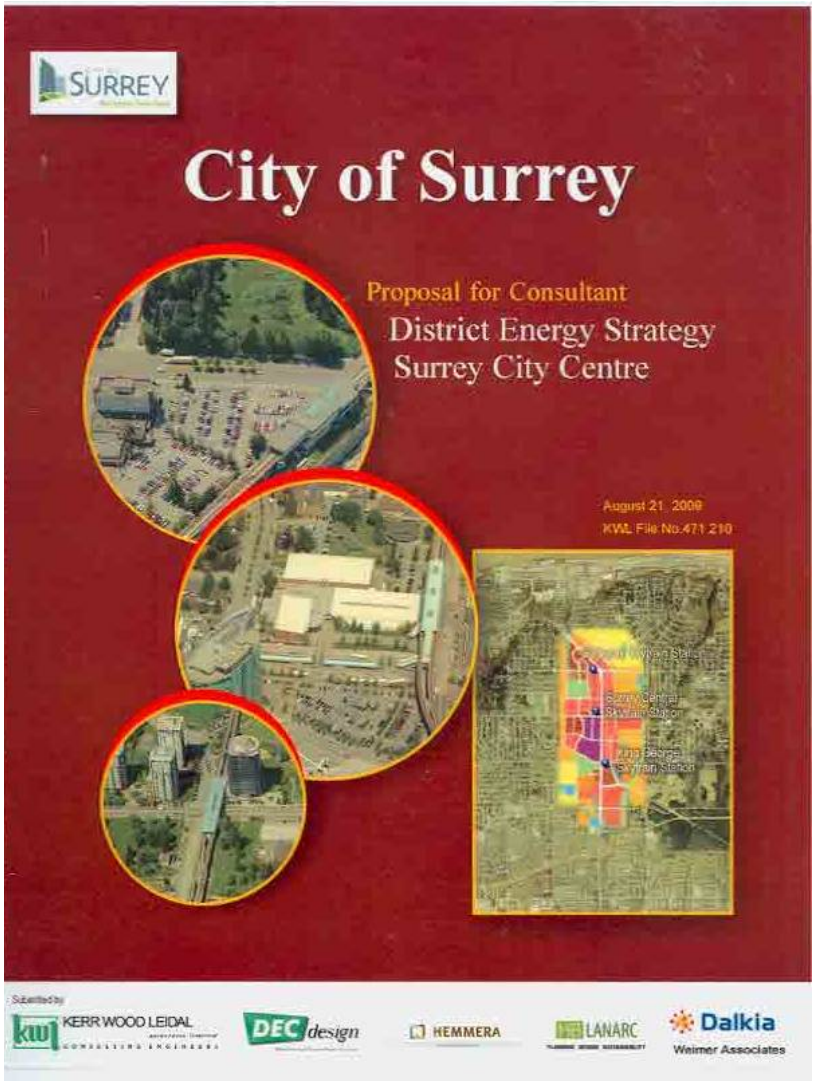
Proposed Cross-Section

City Centre Arterial | 3

Proposed Cross-Section

Collector with Left Turn Bay | 4

Common design principles will create livable, multimodal streets – from local street up to “Great Street”



The District Energy Strategy will take a "renewables first" approach and combine building energy efficiency with flexible, low-carbon fuels

Promoting Inclusivity – TOD needs to be for everyone!

Facilities for Youth

- Comfortable and safe walking and cycling environment
- Expanding programming at major parks and plazas
- Supporting rapid transit connections
- Indoor and outdoor meeting places

Facilities for Families

- Personal safety and security measures
- Traffic safety and safe streets
- Family-friendly play spaces
- Services in short distance of homes
- Ground-oriented housing options
- Quality child care

Facilities for Seniors

- Network of comfortable and attractive walking routes and exercise loops
- Amenities that support active living
- Create a highly accessible City Centre
- Affordable housing

Questions or Comments?

- http://www.surrey.ca/Living+in+Surrey/City+Plans+And+Strategies/Sustainability/Sustainability+Charter/Energy+and+Climate+Change
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