






Sustainability *by* Design

A VISION FOR A REGION OF 4 MILLION

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Introduction

The Greater Vancouver Region has earned a reputation as one of the world's most liveable places. That achievement is the direct result of our region's natural assets as well as the visionary long-term planning of the previous generation. Our challenge, in this generation, is to transform our liveable region into a sustainable one. But the same pressures that propel other regions to make unsustainable decisions are also at play here. Citizens and policy makers are not always sure how to proceed, how to know for certain whether a solution to a short-term problem will enhance or impede our long-term progress towards becoming a more sustainable region. In the last twenty years, Greater Vancouver has experienced a population growth of nearly 60 percent, from 1.2 million people in 1981 to almost 2 million in 2001. Similar rates of growth are expected for the future, with a resulting doubling of our population to 4 million in only fifty years. How will the region accommodate this growth sustainably? How will housing, jobs, and transportation be designed, delivered, and distributed? And how are we to do this and still have our aggregate contribution to global warming decline, even as our population doubles?

In the document you are holding, the Design Centre for Sustainability (DCS) attempts to answer these questions by drawing a literal picture of what a sustainable region of 4 million might look like. We call this project Sustainability by Design (SxD). The project's operating principle is that sustainable solutions applied at the scale of the neighbourhood, if widely replicated, may be the crucial ingredient for a sustainable region;

for, just as the health of the human body has everything to do with the health of the individual cells that comprise it, so the sustainability of the metropolitan region depends on the sustainability of the individual neighbourhoods from which it is assembled.

The goal of this project is: *to galvanize support for a sustainable Vancouver region — among citizens, elected officials, government staff, the NGO sector, real estate professionals, and the broader population of community advocates.* We seek to satisfy the need for a clear picture, currently absent in the minds of our citizens and decision makers, of what a sustainable region of 4 million might actually look like. Without an image of what it looks like, it is not surprising that citizens and decision makers don't know how to build it. In Sustainability by Design you see the first iteration of a collaboratively produced vision for a sustainable region for 4 million.

How did we determine how best to delineate this vision? With the help of our SxD Advisory Committee and our partners in the Technical Advisory Committee of the GVRD we arrived at a two-track strategy to meet this goal. One track would have us use a charrette methodology to arrive at viable sustainable development strategies that could apply to certain types of district-scale sites (a charrette is a time-limited, multi-stakeholder design workshop facilitated by skilled designers). The solutions generated at the three case study charrettes could be mined for the basic design principles embodied therein — principles that could then be applied to other similar sites across the

region. The three types of sites chosen from a host of volunteer communities were: the corridor site (Kingsway, Burnaby, BC), the node site (200th Street nodes, Langley, BC), and the edge site (East Ladner/Delta Civic Centre, Delta, BC). These three charrettes were “stakeholder driven,” meaning that citizens and other stakeholders in the various communities made all of the design decisions about the site, including approving the design and planning targets used in the design brief. The results of these three case study charrettes constitute the first part of Sustainability by Design.

The other track had us looking at the entire region, using design rules that had emerged from the case study charrettes and applying them more broadly. To do this efficiently, we employed the resources of the nation’s planners, architects, and landscape architects, all of whom were in town during one week in late June of 2006. Nearly 200 professionals spent a furiously intense six hours creating a giant 5,000 scale map of the region. This map showed where each and every one of the 1 million new housing units required to house an additional 2 million residents would be located. This map represents the first regional scale collaboratively produced vision for how the region might look in 2050, when it will be home for 4 million people. Most important, it embodies the collective wisdom of the citizens and stakeholders who participated in the case study design charrettes. It also provides, again for the first time, a clear picture of what the region will look like if we successfully achieve the goals set out in the GVRD’s original Liveable Region Strategic

Plan (LRSP) and its heir, the Sustainable Region Initiative (SRI).

We hope and trust that this contribution will help inform the debate in our region — a debate that seems at a critical stage. We owe it to those who came before us to value their commitment to ensuring a liveable region for us, their children. We owe much more to our children: a sustainable region that helps cool our overheating world.

Six guiding principles for sustainable communities

When approaching the problem of designing a region, one is instantly struck with a question: on what basis are we to proceed? In our case we capitalized on a deep, durable, and ongoing public policy debate that resulted in the formulation of a number of first principles. In the Lower Mainland of British Columbia, three public policy debates have been most influential: The BC Commission on Resources and Environment’s “CORE Report,”¹ the Growth Strategies Statutes Amendment Act,² and the Liveable Region Strategic Plan (LRSP).³ All three of these works built from each other and provided a lasting consensus that helped guide a decade of land-use decisions. In short, all three supported the protection of green resources, the provision of adequate and affordable housing throughout the region, and the creation of complete communities where housing, jobs, and services are located conveniently enough that options to the car are conceivable. Of these policy debates, only the LRSP was specifically applied to the Vancouver region. In addition to the general goals mentioned, it identified a

constellation of regional town centres, each to be complete and all to be linked by a web of transit connections.

This robust policy base provided the necessary point of departure for our project. Without it, our work would have been merely speculative. Respect for this broad policy base has resulted in our work being a credible depiction of what our region would look like if it were not only built in conformance with the values expressed in those documents but also went a step further to encompass a vision of the sustainable region that adherence to these values might facilitate. With this in mind, we distilled those general principles for a liveable and sustainable region into a useful design format. The six principles at right are the product of this refining and, ultimately, will become the drivers for the resulting sustainable urban designs. In operation, these principles are synergistic and layered. They truly comprise a case in which the whole is greater than the sum of its parts. Using only one principle to guide design may lead to gains in some areas while producing unintended losses in others (for example, saving fish by reducing density will exacerbate transportation problems and lead to fouled air). Thus, the challenge for the participants became one of combining and layering these principles while trying to minimize the occasional conflicts between them. In the end, these principles may be more important than the designs they generate. If these six simple rules could guide our decisions at the neighbourhood and district scale, the region would certainly be better for it.

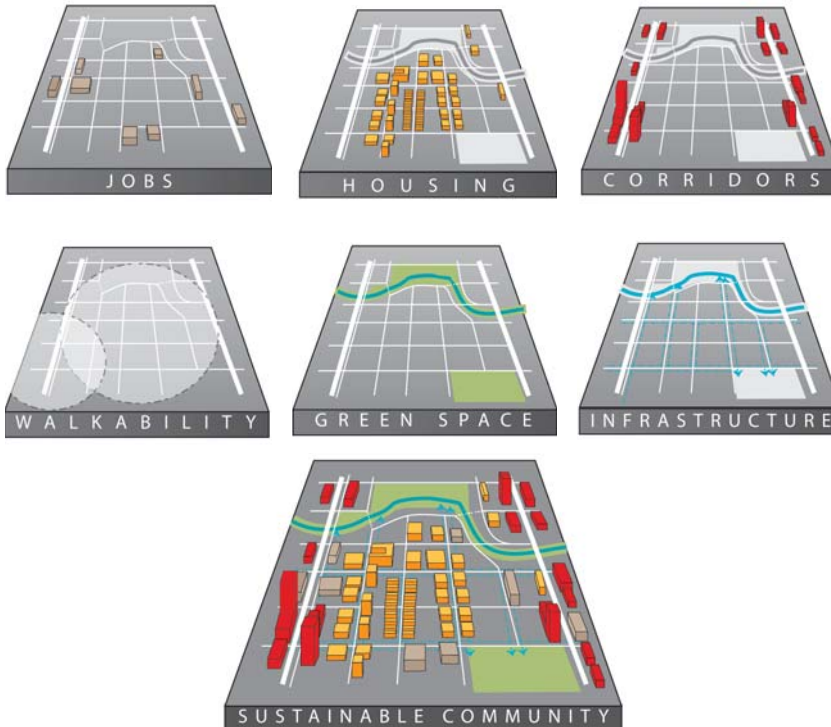


Notes

1 CORE Report, *Finding a Common Ground: A Shared Vision for Land Use in British Columbia*, Commission on Resources and the Environment, Vancouver, BC, 1994

2 *Growth Strategies Statutes Amendment Act*, Province of British Columbia Legislative Assembly and Minister of Municipal Affairs, Victoria, BC, 1995

3 *Livable Region Strategic Plan, LRSP*, Greater Vancouver Regional District, Burnaby, BC, 1995



six guiding principles for sustainable communities

1. Good and plentiful **JOBS** close to home.
Job sites located within communities reduce time spent travelling to work
2. Different **HOUSING** types.
A range of housing types allows residents of differing economic situations to live in the same neighbourhood and have access to the same services
3. Mixed use **CORRIDORS** accessible to all.
High density commercial and residential corridors focus growth along transit routes
4. Five minute **WALKING** distance.
Interconnected street systems link residents with the services they need
5. Access to **NATURAL** areas and parks.
Green space provides recreation opportunities and connects people with natural systems
6. Lighter, greener, cheaper, smarter **INFRASTRUCTURE**.
Integrating natural systems reduces infrastructure costs and environmental impact