

A DESIGN APPROACH

The Charrette Strategies from Part Two revealed scores of ways to design more sustainable districts, corridors, blocks and parcels. In this section, we have distilled the Strategies, and grouped them into **Six Overarching Principles**. Each of the six principles address a range community and site design objectives (from capitalizing on natural assets, to creating vibrant urban centres) and each make up an essential piece of a unified whole. Flowing from these principles are a series of site and community **Design Guidelines** (beginning on page 86). The Design Guidelines are organized first, according to the four scales of urban design, and second, according to the Six Overarching Principles.



PART THREE

A Design Approach

Six Overarching Principles
Design Guidelines
Design Checklist

The following section presents Six Overarching Principles followed by a series of site and community Design Guidelines, which collectively constitute a tool kit for more sustainable community design.

The principles and guidelines were distilled from the Charrette Strategies from Part Two. In this way we reversed the usual process of working from the particular design rule to the general plan and instead derived the specific design rules from the integrated whole of the completed charrette proposals. This ensured that each principle and guideline was firmly grounded in a charrette proposal, which itself was informed by extensive policy for more sustainable development.

Six Overarching Principles

The Six Overarching Principles that emerged out of the Charrette Strategies are:

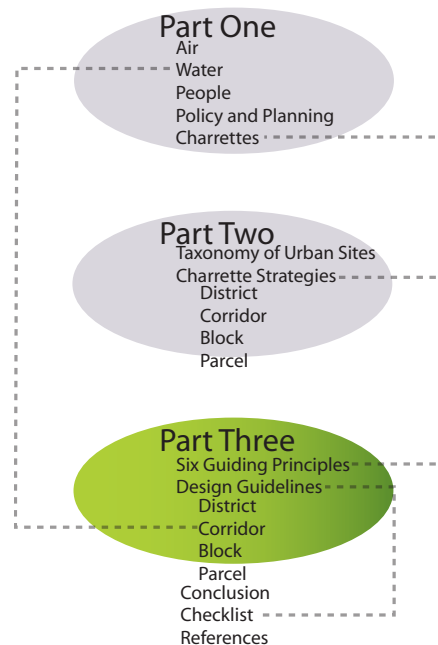
- 1 Capitalize on the site
- 2 Connect the flows
- 3 Layer the systems
- 4 Create a centre
- 5 Employ an economy of means
- 6 Make it home

Individually, the six principles address varying aspects of community and site design, from designing mixed-use, compact communities around transit, to designing interconnected streets and pathways, to providing affordable homes and services, to protecting watershed systems and their associated green infrastructure networks. Combined, the six principles deal with sites and districts as part of a larger, integrated system within which the health of each component part is dependent upon the health of the whole.

Design Guidelines

Together with the Charrette Strategies, the above principles provided the methodological basis for the **Design Guidelines** (introduced on page 86). Like the Charrette Strategies, the Design Guidelines are presented according to the four scales of urban design – district,

corridor, block, parcel – featured in the Taxonomy of Urban Sites. They are then organized according to the appropriate overarching principle. As guidelines, they are not fundamentally regulatory or prescriptive in nature but are meant to provoke a rethinking of how sites, communities, and regions might be designed to meet multiple (and often competing) sustainability objectives.



Six Overarching Principles

capitalize on the site

Capitalizing on the site allows new blocks and districts to connect and add to existing blocks and districts. Finding the best fit between new and existing community elements is both equitable and efficient. For instance, a hillside community in which houses and streets follow the contours, and are situated on the more gently sloped benchlands, capitalizes on the site's topography. A retrofit of a brownfield industrial area that rebuilds degraded natural systems while also keeping some businesses in place capitalizes on existing site functions.

1



Photo source: Aplin and Martin Consultants Ltd.

Homes situated on hillside terraces capitalize on available views. Even partial views can bring a higher sale value to homes.



Photo source: Aplin and Martin Consultants Ltd.

Natural features can be preserved and carefully used for green infrastructure and recreational needs. Integration and protection of natural features adds value to the community, increases resident satisfaction, and reveals natural systems at work.



Photo source: Aplin and Martin Consultants Ltd.

Redevelopment of brownfield sites can meet the housing demands of a growing population and provide an opportunity to mitigate environmental damage caused by previous users. Development plans can also capitalize on existing residents and services to provide a foundation for community growth.

Six Overarching Principles connect the flows

To connect the flows is to link together the elements of a community that connect neighbourhoods, districts, and regions. Neighbourhoods that are built around a transit hub in a district laced with multi-modal transportation corridors connect the flows. Transportation corridors that serve all the districts in a region further connect the flows. A neighbourhood or district in which stream corridors are recognized, celebrated, and cared for as a part of a larger regional system also connect the flows. A sustainable region is one in which the flows of people, cars, economic exchange, water, fish, and wildlife work together.

Preserved stream corridors provide fish habitat and play a key role in a green infrastructure system. They also provide an ideal opportunity to connect the flow of people throughout the community.



Photo source: Ajlin and Martin Consultants Ltd.

A sustainable network of transportation corridors efficiently connects homes to employment and shopping hubs. Buses, cars, bicycles and pedestrians can get around on such a network.



An interconnected network of local streets provides direct and safe routes for multiple users, including pedestrians and cyclists. Lanes can be a valuable component of this network, providing access to the rear of parcels and an alternative route for cars, bikes and pedestrians.



2

Six Overarching Principles

layer the systems

Layering the systems means building many functions, or uses, into each element of a community, thus revealing how the landscape and community operate as one unit. Outdoor public space that fulfills recreation, stormwater management, and habitat needs is a layered space. A community that utilizes a stream corridor to enrich the experiences of children, enhance habitat, provide natural storm drainage, and supply pedestrian routes is a layered community. A neighbourhood that incorporates a variety of housing types in order to meet the changing needs of its residents is also a layered neighbourhood.



Layering commercial and residential uses, such as providing a neighborhood 'corner store,' allows residents to meet their daily needs within walking distance.



Layering working and living in one mixed-use development means at least one family member can work at home. Townhouses or apartments located above shops increase the variety of housing options available within the neighbourhood.



Riparian areas can be preserved for ecological and recreational functions. Layering outdoor public space, pedestrian corridors and storm drainage on and around stream corridors increases land use efficiency, mitigates impacts to water quality, provides easy access to nature for children, and reveals the wonder of natural processes to the community.

3

Six Overarching Principles create a centre

To create a centre is to concentrate uses where they are most needed. Grouping residents and their daily needs around a dense core makes it easier for people to get what they need and can reduce dependence on cars. A neighbourhood that has a public green space as its focus has a centre; a community that is designed to cluster commercial uses, public services, and transit in one area has a centre; and concentrating higher-density pedestrian neighbourhoods around the core provides lots of customers for the centre. A centred community where development is efficiently concentrated also preserves and conserves open space and sensitive natural areas.

Transportation corridors attract commercial and retail uses and can provide a linear centre for the community. A carefully orchestrated “Main Street” can provide for the daily needs of local residents and become a destination location for visitors.



A neighbourhood public open space provides a venue for celebrations and a place to congregate outside of the home. Situated along a pedestrian route, the open space centre can promote casual meetings and conversations.



Photo source: Apelin and Martin Consultants Ltd.

Higher density pedestrian-oriented neighbourhoods located around the centre provide the population density required to foster a lively street life and support local commercial services.



Six Overarching Principles

economy of means

An economy of means is making it work with nothing wasted. It means less road per person, less land per house, fewer car trips per family, and more money in your pocket. A community that incorporates lighter, cheaper, smarter and greener infrastructure in order to clean stormwater, save costs, and bring nature to one's door employs an economy of means. A community that provides opportunities to work near or at home exhibits an economy of means. A house that has a suite above the garage in order to increase density and to decrease housing costs also exhibits an economy of means. Applying an economy of means capitalizes on all aspects of a site to create the best and most affordable community possible.

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Neighbourhoods can capture, clean and infiltrate stormwater on-site. By working with, not against the natural cycles of the site, installation and repair costs can be reduced. Narrow streets with soft shoulders let stormwater be captured, cleaned and infiltrated where it falls.



A single family home with a secondary suite or coach house can provide housing for a variety of tenures and income levels. The suite also acts as a mortgage helper and provides space for elders or young adults to live independently, yet near their family.

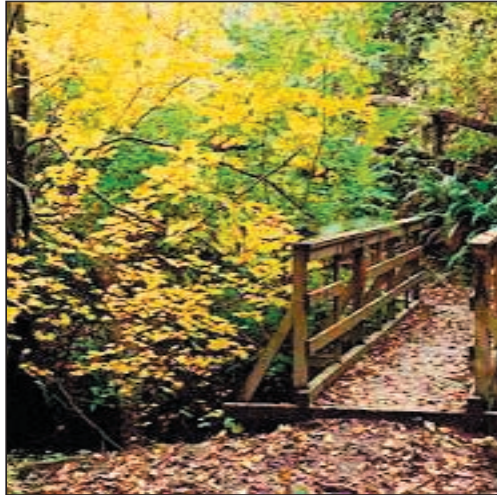


More compact development requires less infrastructure, resulting in less road per person, less land per house, fewer car trips per person, and more accessible transit.

Six Overarching Principles make it home

Nurturing a sense of home can be as simple as creating places for people to interact, or as grand as preserving a major natural area as the focus of the new or rebuilt community. A community that develops a park and greenway system around a creek corridor nurtures a sense of home for its children and for other creatures. Houses that front onto pedestrian-friendly streets allow people to meet and greet their neighbours. A community that nurtures a sense of home will be a community where residents can feel “at home.”

By including recreation, storm water management and wildlife habitat functions, a preserved or restored creek corridor provides an immediately available opportunity for community residents to connect with more than just their house and yard. This enduring attachment can turn what was just the street where one lives to the place one calls home.



Shallow front yard setbacks, a front porch or stoop, and pedestrian friendly streets work together to make the neighbourhood welcoming. A neighbourhood where residents feel at home is a place where residents and visitors can socialize.



Greenways are linear recreational, travel, and habitat corridors linking pedestrians and cyclists to the surrounding community. They can also play an important part in a green infrastructure system. Streets that are comfortable for walking make people feel more at home.



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