

Green *with* Incentives:

Supporting Sustainable Infrastructure and Development

by Carla Stewart

Municipal governments increasingly support the understanding that taking environmental action at a local level is not only necessary but imperative for producing sustainable communities. Many local governments struggle, however, to adopt policies that support creating and sustaining healthy livable cities. The City of Kamloops believes it has taken a bold step in the “sustainability” direction, from an ecological point of view, by supporting a new neighbourhood plan with an incentive program and development review system that encourages the installation of green infrastructure in redevelopment projects and by launching a pilot project that will see the implementation of green streets throughout an entire neighbourhood. This article offers a look into Kamloops’ new North Shore Neighbourhood Plan, and how its policies move toward creating a new standard for green infrastructure and bridging the gap between the economics of development and the pressing need for a sustainable livability within our cities, communities and neighbourhoods.

The North Shore Neighbourhood Plan

The City of Kamloops engaged in a community-supported planning process

from 2005 to 2008 to create the North Shore Neighbourhood Plan, focusing on supporting sustainable, environmentally-friendly and responsible development and on supporting a Green Streets Pilot Project. The unique implementation methods introduced in the Plan financially encourage developers to take risks and to move away from the standard development forms, designs, and functions that are prevalent across Canada in cities of all sizes. All policy statements, action items and implementation methods in the Plan were modeled after nine principles that are to be taken into consideration when the City considers development proposals. Collectively, these principles support sustainable, integrated, healthy and livable urban environments. One principle in particular, however, directly relates to green infrastructure:

“Utilize Smarter and Cost-Effective Infrastructure and Green Buildings – by encouraging the use of green technology and other similar systems that can save both money and the environment.”

In order to support and show confidence in this principle, the City established implementation methods to ensure that

Summary

Using a Development Checklist and Incentive Matrix, the City of Kamloops has established a system to review development proposals and provide an incentive program that specifically encourages green infrastructure and community-appropriate, urban-focused development. Kamloops is also engaged in a pilot project to install Green Streets throughout an entire neighbourhood.

Résumé

À l'aide d'une liste de contrôle et d'une grille d'incitatifs de développement, la Ville de Kamloops a mis en place un système d'examen des propositions de développement et un programme d'incitatifs conçu précisément pour favoriser les infrastructures vertes et une forme de développement urbain convenant à la collectivité. Kamloops a même lancé un projet pilote axé sur l'aménagement de rue vertes dans tout un quartier.

Nine Principles:

1. Create a Diverse and Complete Community
2. Reinforce the Neighbourhood Heart
3. Protect the Distinctive Character
4. Protect Housing Choice Availability
5. Design for Safety and Security
6. Encourage Environmental Stewardship
7. Create Value by Design
8. Provide for Adaptability
9. Utilize Smarter and Cost-Effective Infrastructure and Green Buildings

conforming with this principle was realistic and attainable: a Development Checklist and Development Incentive Matrix were created specifically to direct development toward sustainable choices and, in return, to provide incentives that allow for cost reductions before, during, and after construction.

Development Checklist

Keeping the vision of a neighbourhood intact is no easy task. To support the principles of the community and facilitate new construction, a Development Checklist was created to assist the key players in development (including property owners, developers or consultants) to create the most sustainable, innovative, appropriate and long-lasting projects possible. The Development Checklist is separated into six sections:

- **Regulatory Conditions** – policies and by-laws that govern use, form and character.
- **Public Health and Safety** – features of the development affecting the public interest in ways that lead to a safe and secure environment.
- **Urban Design** – architectural elements, selected materials and public realm enhancements that work toward creating an environment with visual and functional appeal.
- **Social Sustainability** – the ability for the development to contribute to the social well-being of the community through economic enhancement, provision of public services and amenities, supply of affordable housing and other measures that can positively impact the social realm of the community.
- **Site Access, Connectivity and Parking** – the movement of people and vehicles, on and off site.
- **Environmental Sustainability** – the ability of the development to provide sound stewardship of environmental resources and to reduce the pressures placed on municipal infrastructure systems.

TABLE 1: DEVELOPMENT CHECKLIST: ENVIRONMENTAL SUSTAINABILITY SECTION

	Features	Point Value	Points Earned	Supporting Comments and Documentation
Green Building Certification				
f.1	The development is LEED/Built Green certified.	5		
f.2	The development reached LEED/Built Green silver.	15		
f.3	The development reached LEED/Built Green gold.	20		
f.4	The development reached LEED/Built Green platinum.	25		
Environmental Stewardship				
f.5	Greenspace (e.g., landscaped areas that have shrubs, trees and/or grass) for the development is provided.	1		
f.6	Trees are added to the landscaped areas.	1		
f.7	Significant environmental features are maintained and/or enhanced.	1		
On-Site Stormwater Management				
f.8	Rain gardens, detention ponds and other on-site stormwater management features are incorporated into landscaped areas.	5		
f.9	Green Roof installed to a minimum of 50% of the total roof area.	5		
f.10	Green Street used in development.	2		
Water Efficiency				
f.11	Water efficient landscaping used.	2		
f.12	Non-potable water system installed and used for irrigation.	2		
f.13	Innovative wastewater technologies used (e.g., low consumption fixtures, grey water systems, stormwater irrigation).	2		
Good Neighbour Features				
f.14	Noise mitigation building design and features used in development.	1		
f.15	Sign and building light pollution minimized.	1		
Construction Management				
f.16	Majority of materials from regional sources.	2		
f.17	Renewable resources used in construction.	1		
f.18	Durable and long-lasting construction materials used.	1		
Energy Conservation				
f.19	Integration of solar power into building design and construction, including the use of design to orient buildings to maximize interior solar accessibility.	1		
f.20	Power Smart and CFC-reducing HVAC systems used in the building.	1		
Site Development				
f.21	Development connects well with surroundings and integrates into the existing character and function of the neighbourhood.	2		
f.22	Wildlife habitat on or adjacent to the site has been protected, enhanced and/or restored.	1		
f.23	Open space exceeds minimum zoning requirements on site (e.g., use of clustering, reduced lot coverage, etc.).	1		
f.24	Heritage features have been preserved and/or enhanced (in conjunction with the Canadian Historic Places Standards and Guidelines).	2		
Innovation in Design				
f.25	Development adds other unique or innovative features not covered by the above checklist. Provide details.	5		
Total Points Earned (Minimum Base Points Required = 35)				
Environmental Sustainability Minimum Achieved?		Y / N		

Each section has a minimum number of points that need to be achieved in order to gain “credit” for that section. As an example, the Environmental Sustainability section of the Checklist (see Table 1) offers points for LEED construction, (Leadership in Energy and Environmental Design) providing an on-site stormwater management system, including rain gardens and green roofs and using landscaped areas for water runoff. It specifies the use of local or regional building materials, exceeding the open space requirements set out in the zoning by-law (which might result in taller buildings), preserving heritage features and taking into consideration the development’s surroundings when designing the building and the function and layout of the site (something which tends to be obvious but is all too often not done or is ignored). To meet the minimum requirements, or to get “credit” for this section, 35 points are required. Constructing at a LEED or Built Green Platinum level earns a

developer 25 points; however, 10 other points are needed to reach the minimum required for this category.

The key component to the Checklist is that the point tallies are determined by the developers, depending on what elements they want to include in their proposals. As long as the minimum point levels are reached, “credit” for the section will be granted. “Credit” for a minimum of four sections must be earned before the City will grant any incentives (see Table 2). Using the Checklist, the developer can work through several different scenarios prior to meeting with the City, to determine what levels are possible with their proposal. This eliminates extensive, lengthy and sometimes adversarial meetings with the City and allows for City staff to expedite the application. It also benefits the developer by providing upfront clarity and direction to the *pro forma* used in the development decision-making process.

Options for ensuring compliance under this system are numerous, but generally entail the use of Development Permits, Building Permits, covenants registered against a property, securing bonding, applying tax exemptions and DCC credits after construction, requiring tax and DCC repayments if amenities were not provided as indicated or entering into Housing Agreements and Development Agreements legally binding developers to provide the features identified within the Development Checklist.

Development Incentive Matrix

In order to make the policies and the vision and goals of the North Shore Neighbourhood Plan a reality, municipal leadership is required. Although this can take many forms, financial incentives to developers are typically what garner the most support from the development industry. Green buildings, green infrastructure, eco-roofs, and sustainable development systems, although cheaper in the long run, can typically add between 2 to 15 percent to a development’s initial costs. Based on numbers alone, these sustainable forms of development will not be used or implemented without additional help.

The Development Incentive Matrix (see Table 3) is used in concert with the Development Checklist to determine what package of incentives, if any, will be offered for the project. The North Shore Neighbourhood Plan identifies development features, on a per project basis, that could be eligible for incentives, including:

- constructing a green roof to a minimum of 50 percent of the total roof area;
- constructing an on-site/eco-friendly stormwater system;
- constructing a green building; and
- constructing mixed-use residential and commercial buildings within the main town centre and commercial core areas.

TABLE 2: DEVELOPMENT CHECKLIST SUMMARY

Development Checklist				
Regulatory Conditions Minimum Achieved?	yes	no		
Public Health and Safety Minimum Achieved?	yes	no		
Urban Design Minimum Achieved?	yes	no		
Social Sustainability Minimum Achieved?	yes	no		
Site Access, Connectivity and Parking Minimum Achieved?	yes	no		
Environmental Sustainability Minimum Achieved?	yes	no		
Incentive Level				
Number of Checklist Section Minimums Achieved	Less than 4	4	5	6
Incentive Level Reached for Development Proposal	Base	Level 1	Level 2	Level 3
Incentive Amounts (refer to attached Development Incentive Matrix)				
Tax Reduction Amount (%)				
DCC Reduction Amount				
- Non-market Housing Residential Unit Amount (%)				
- Green Development Related Amount (%)				
Parking Relaxation Amount (%)				
Amenity Bonus Increase (%)				
Public Realm Partnership Amount Recommended (%)				
Planning Priority Level				
Checklist Approval				
All Supporting Documentation Submitted?	yes	no		
Checklist Approved by Development Services Department	yes	no		
File Manager:	Date Signed:			
Signature:				

TABLE 3: DEVELOPMENT INCENTIVE MATRIX

Development Checklist Section	Base Level	Level 1	Level 2	Level 3
Section Minimums refer to the minimum point level for each Section within the Development Checklist.	3 or fewer Section Minimums met	4 out of 6 Section Minimums met	5 out of 6 Section Minimums met	6 out of 6 Section Minimums met
Development Incentive Tool	Reduction Amount	Reduction Amount	Reduction Amount	Reduction Amount
Tax Exemption: ^a	n/a	20%	40%	60%
Within North Shore Towne Centre	n/a	additional 20%	additional 20%	additional 20%
Within Tranquille Commercial District	n/a	additional 15%	additional 15%	additional 15%
Within Tranquille South	n/a	additional 10%	additional 10%	additional 10%
Within Brock Shopping Centre	n/a	additional 10%	additional 10%	additional 10%
Within Halston Entry Corridor or 8th Street	n/a	additional 5%	additional 5%	additional 5%
All Other Areas	n/a	n/a	n/a	n/a
Mixed-use Green Development	n/a	additional 10%	additional 10%	additional 10%
Green Development	n/a	additional 5%	additional 5%	additional 5%
Combined Market and Non-market Housing	n/a	additional 10%	additional 10%	additional 10%
DCC Reduction: ^b				
Social Housing Units	100%	100%	100%	100%
Small Housing Units	TBD	TBD	TBD	TBD
Green Development	n/a	TBD	TBD	TBD
Parking Requirement Relaxation	n/a	5%	10%	25%
Density Bonus ^c	n/a	25%	50%	Maximum Permitted
Public Realm Partnering ^d	n/a	25%	35%	50%
Planning Process Priorities ^e	Normal Process	Normal Process	Expedited Process	Expedited Process

^a Exemption Periods are for a maximum of 10 years; exemptions calculated on the increase in total assessed value, post-construction; minimum 50 percent of roof coverage applies to green roof installation; minimum of 50 percent of units designated as affordable for combined market and non-market housing developments is required.

^b DCC Reductions pertain to social housing units only; Green Development DCC reductions are "To Be Determined" as part of the Green DCC review taking place 2008-2009; Small Housing Units are self-contained and no larger than 30m².

^c Density Bonus is an increase limited to the maximum densities identified within Section Four of this Plan and within the North Shore Development Permit Area Guidelines.

^d Public Realm Partnering (to a maximum of \$100,000) requires the approval of City Council.

^e Planning Process Priorities will be expedited for all Level 1 developments that incorporate a minimum of 50 percent of the total units as non-market housing.

The types of incentives offered can include a combination of:

- **Tax Reductions** – in property taxes up to 10 (ten) years;
- **Development Cost Charge Reductions** – in DCCs owed to the City at the time of development in exchange for green infrastructure systems;
- **Parking Requirement Relaxations** – in the number of parking stalls required;
- **Density Bonusing** – for an increase in density for development sites;
- **Public Realm Partnering** – funding and support from the City for improvements to the public right-of-way; and
- **Planning Process Priorities** – for development proposals that exhibit enhanced building and site design attributes.



View of mixed-use development site within the North Shore's Towne Centre.

Putting Policy Into Action

Working in a P4 partnership (partnership involving land owner, developer and two levels of government) between the Thompson-Nicola Regional District (property owner), Tri-City Contracting Ltd. (applicant and developer), JMA Architecture (designer and architect) and the Provincial Government (partial funding provider), the City of Kamloops successfully processed a Development Permit application for a green-oriented mixed-use commercial, library, multiple family development within the North Shore's Towne Centre. The applicant used the Development Checklist and Incentive Matrix to boost the green features in the proposal in exchange for development incentives. This included development comprising a 1,900m² library, 1,560 m² of commercial floor space with a pedestrian-focused design, 147 multiple family units (eight of which

are designed with the flexibility to offer secondary suites), underground parking, a combination of LEED Silver and Gold construction for building interiors for the entire development, a green roof, shared parking areas with an adjacent business, designated carpool and hybrid car parking areas, an on-site stormwater system, and a building designed using the principles of CPTED (Crime Prevention Through Environmental Design). In exchange, and in accordance with the Development Incentive Matrix, the City of Kamloops offered a 2% area reduction for landscaping (typically works as an exchange for green roof development), a 25% stall reduction for required parking, a density bonus increase in residential units, expedited processing of the Development Permit application (and Building Permit application when submitted) and a 10-year, 90% exemption in the city portion of the

post-construction property taxes. The Development Permit application for the North Shore mixed-use library project was expedited and processed in exactly nine business days, equating to significant time and cost savings to the applicant over the course of the project.

The North Shore Neighbourhood Plan supports reducing Development Cost Charge rates for green or eco-friendly developments that contribute to sustainable communities and that reduce burdens on the City's infrastructure compared to conventional forms of development. Creating a program to reduce DCCs for green development is currently under review as part of a pilot project the City of Kamloops has launched, with partial funding by the Province, to determine the effectiveness of offering DCC reductions in exchange for the type of green infrastructure that places no additional burdens on the



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City's systems. Upon completion of this Green DCC review, the North Shore Development Incentive Matrix (see Table 3) will be adjusted showing the types of development that will qualify for Green DCC reductions. If this incentive had been in place during the processing of the mixed-use library development, it would have been added to the incentive package approved for the proposal.

Green Street Pilot Project

The City of Kamloops is not just focused on providing financial incentives to developers to construct green buildings and sustainable sites; it is also providing an incentive through funding and implementing a Green Street Pilot Program for the North Shore to illustrate a new standard for development. Successful Green Streets have been built in Vancouver, Seattle and in several cities throughout Oregon. Implementing a Green Street program in Kamloops however, brings with it challenges not experienced in the other cities mentioned due to significant climate differences. Having four distinct seasons creates specific infrastructure challenges, including: freeze/thaw conditions that create roadway heaving and surface cracking; a lack of consistent rainfall requiring drought-resistance plant material; heavy rainfall within short periods of time; high summer temperatures requiring a water source for plant material; large temperature fluctuations between the winter and summer months; use of sand during the winter months precluding the use of porous pavement; use of snowploughs and the potential damage to plant material; and a need for extensive snow storage areas. A pilot project to design and construct the first Green Street in Kamloops on a residential block on the North Shore has been underway for approximately 20 months with a completion date estimated for the summer of 2009. This Green Street will serve as a first for cold climate cities and offer an alternative to the hard

surface road infrastructure systems that are typical of most residential neighbourhoods. The City is moving forward with this project, working through all issues and identifying design challenges ahead of time, rather than requiring a developer to fund a project that initially carries with it more questions than answers. If successful, the Green Street standard will be applied throughout the entire North Shore neighbourhood.

Conclusion

It is one thing to provide money to create green infrastructure; it is quite another to support a community where green infrastructure plays a larger role in formulating a solid urban social fabric. Green infrastructure allows for reduced costs both in terms of construction, maintenance and operations; creates park areas; cleans air; slows traffic; enhances the pedestrian experience; and makes highly dense urban environments more attractive and easier to live in, a refreshing alternative to the suburban lifestyle so heartily maintained at great economic, social and environmental costs to our communities. The North Shore Neighbourhood Plan strives to attain these goals and supports moving toward sustainability by providing the

ability to create green infrastructure systems and by offering leadership in the form of financial incentives. ■

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