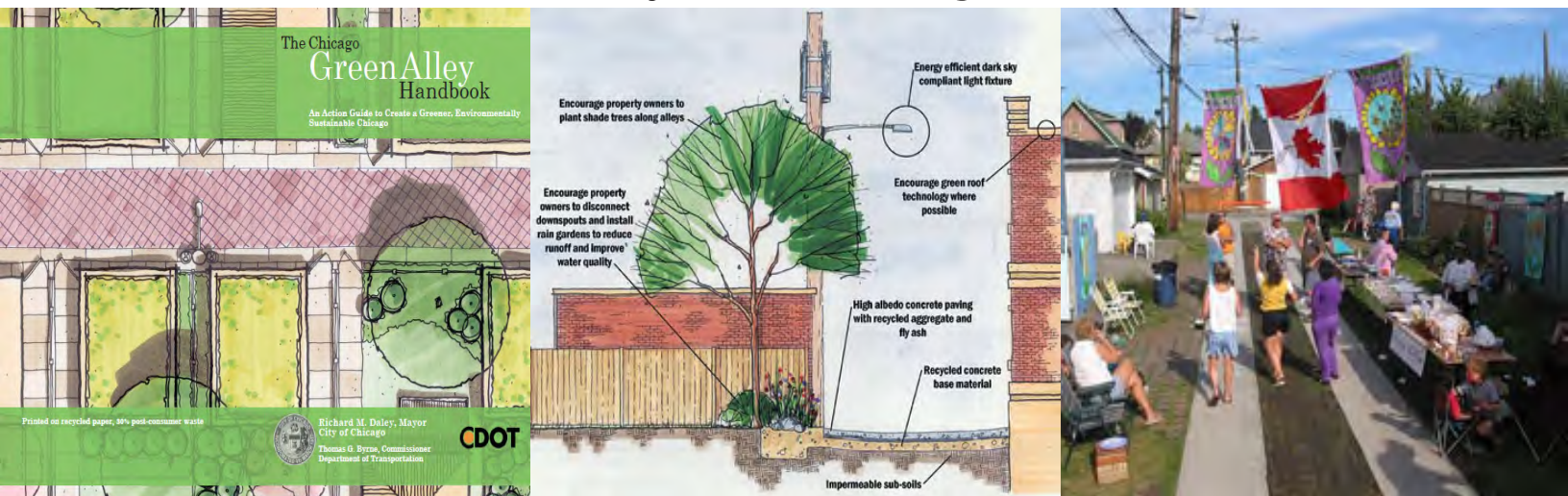


Green Lights on Winnipeg's Back Lanes:

Illumination from the Chicago Green Alley Initiative and the Vancouver Country Lanes Program



Abstract

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Cities in North America and around the world are increasingly demanding that their infrastructure contribute to sustainable development. Alleys or back lanes used to be places that were easily to be forgotten in such discourse. However, there are cities have started paying attention to alleys and who are taking efforts to leverage these spaces into environmentally friendly urban amenities.

This case-in-point project will examine two precedents: Chicago Green Alley Initiative and Vancouver's Country Lanes program, drawing lessons from them, and applying those lessons to the Green Back Lane Initiative Pilot Project of Winnipeg. Specifically, it will look at the opportunities and methods for involving residents in the Green Back Lane pilot project. Residential engagement can help maintain and thereby improve the performance of the lane, and also their awareness can increase pride and, if they talk to others about the project, is a promotional opportunity for the City of Winnipeg.



*“Working together,
we can
conserve Chicago
and build a
sustainable city for
generations to
come.”*

*—Richard M. Daley
Former Mayor, City of
Chicago*

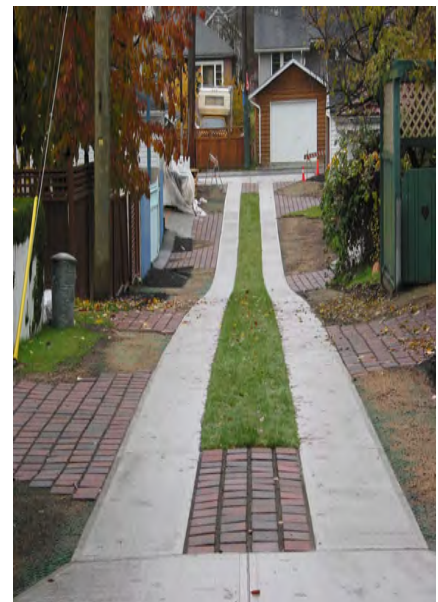
Background

The Chicago Green Alley Initiative is a green infrastructure project that is aiming to incorporate environment-friendly characteristics, such as permeable and high-albedo pavements, recycled materials, and dark sky-compliant light fixtures into the city’s alleys (City of Chicago, 2010). Those measurements not only help to filter and drain the stormwater into the ground to reduce urban run-off, but also alleviate urban heat island effect and reduce light pollution.

Similar to the Chicago’s initiative, a “Country Lanes” program is designed and implemented by the City of Vancouver to demonstrate its emphasis on the city’s sustainability. The innovative design enables the “Country Lane” to withstand vehicles to drive on while allowing the

stormwater to infiltrate into the ground. Besides the environmental benefits that this project has brought, the new lane also has a function of calming traffic and provides natural appearance that is aesthetically pleasing (City of Vancouver, 2002b).

The experience and lessons from those precedents can generate valuable resources for the proposed Green Back Lane Initiative Pilot Project in Winnipeg. It will also inform the City of developing strategies to engage local residents in the project performance enhancement. This is also identified as a key success factor for both the precedent pilots.

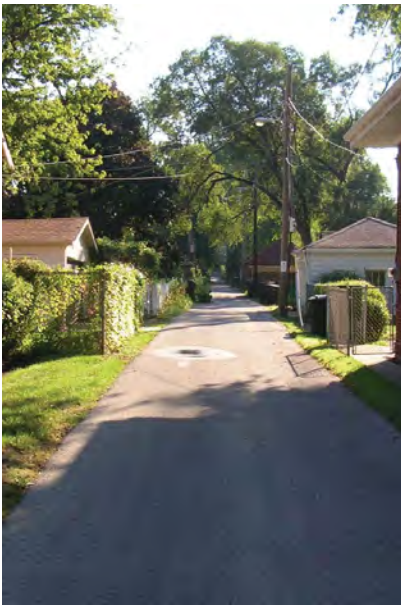




Facts of the Case

The Chicago Green Alley Initiative

With nearly 2,000 miles of alleys and 3,500 acres of paved impermeable surface, Chicago has one of the most extensive systems in the World, and is referred to as the alley capital of America. Due to the problem that the surfaces and grading of many alleys have deteriorated, heavy rainstorm occasions exacerbates Chicago's laid combined sewage and stormwater system, and cause watershed pollution when overflow happens. In 2006, the City of Chicago's Department



“The alley is not only functional, but an educational green landscape that is helping a city experiment with design and different ways to handle water.”

—Michael D. Martin
Associate Professor,
Iowa State University

of Transportation proposed the green alley program to solve the problem. As one of many environment friendly initiatives that the City of Chicago is working to achieve sustainable development, the Green Alley project has showcased both the techniques to reduce human impact on the environment and the intention to improve life quality in local communities. It incorporates a variety of innovative characteristics that help facilitate the city's infrastructure contributing sustainability:

- Permeable pavements (asphalt, concrete or pavers) that allow stormwater to filter through the pavement and drain into the ground
- Open bottom catch basins-- installed in alleys to capture water and funnel it into the ground
- High-albedo pavement that reflects sunlight instead of absorbing it, helping reduce the urban heat island effect
- Recycled materials, such as concrete aggregate, slag and recycled tire rubber
- Proper grading and pitch to facilitate drainage
- Use of dark sky-compliant light fixtures to reduce light pollution and provide uniform illumination
- Involvement of neighbouring

property owners in maintaining their green alley and implementing sustainable practices to enhance the performance of the green alley (City of Chicago, n.d.)

A Chicago Green Alley Handbook was developed by the City of Chicago to help adjacent landowners better understand green alley project and inform them of ways that they can implement to enhance the performance of the green alleys.

The Vancouver Country Lanes Program

In 2002, the City of Vancouver approved the Country Lane as an alternative to traditional full width lane. This new design is adopted to demonstrate the City's commitment to sustainable development. The Country Lane concept uses two bands of permeable hard surface to sustain vehicles driving on it, interspersed with structural grass area that is able to support vehicles.

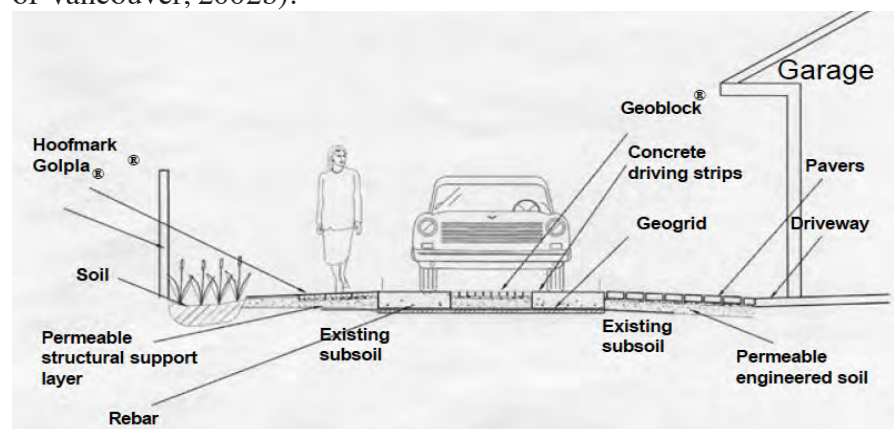
Three locations are identified as pilot project sites for the Contry Lanes Program: Lane south of 27th Ave. from east of Fraser St. to west of Pr. Albert St.; Lane east of Maple St. from 5th Avenue to the Dead End South; Lane south of Yale St. from Slocan St. to Kaslo St. These sites were selected partially

because that they gained strong community support from local residents to help maintain and promote the projects (City of Vancouver, 2002a).

As one of the City's green design projects, Country Lanes Program provides a bunch of benefits both to the environment and people's life:

- Natural drainage that reduces urban run-off into the stormwater system
- Recharging groundwater with filtration
- Creating attractive pleasing, and rural aesthetic
- Encouraging drivers to reduce vehicle speed to achieve traffic calming (City of Vancouver, 2002a and 2002b)

Local community members were involved in the whole process of the program from design to construction. The purpose of community engagement in the program is to educate public and bring awareness to issues of stormwater management (City of Vancouver, 2002b).





Conclusions

The Chicago Green Alley Initiative

Between 2006 and 2009, there were more than 80 alleys in Chicago having been retrofitted with green technologies (Hoyer, 2009). The funding for the green alley project has been secured in the city budget.

Most of those resurfaced alleys don't look much different from their original appearance. They still maintain usual functions that a typical alley may have: providing space for garages and garbage bins, inter-building access, and transport space. What makes them different is the alley's performance in filtering the stormwater and reducing urban run off. The Chicago Green Alley Initiative demonstrated sustainable strategies implemented in urban alleys, and since 2009, it has been integrated into ongoing planning process of Chicago's infrastructure renewal.



kind in western provinces, and perhaps around Canada. Vancouver city council has provided \$150,000 to fund the pilot project entirely from the Streets Basic Capital Unappropriated Account Group SCA5C-UNAP (Residential Streets Unappropriated) (City of Vancouver, 2002a). Grant from Federation of Canadian Municipalities (FCM) also made the program possible. The pilot project has won both the 2003 American Public Works Association's Technical Innovation Award and Honourable Mention for the 2003 Canadian Association of Municipal Administrators USFilter Environmental Award. The environmental, social, and financial implications of this project are valuable lessons for other Canadian cities to learn.

The Vancouver Country Lanes Program

The program is the first of its

Lessons Learned

Alleys and Back Lanes Could Do More Than Just Stormwater Management

The main purpose of Chicago Green Alley Initiative and the Vancouver Country Lanes Program are both on stormwater management by using best management practices to increase the infiltration of heavy precipitation, and reduce urban run-off directed to sewage system. Besides the main purpose, additional benefits are also generated during the process, such as incorporating recycled materials, reducing light pollution, and providing rural aesthetics and traffic calming. Actually, alleys can also be transformed into neighbourhood amenities to enhance public life if they are properly planned and redesigned.

Neighbourhood Support Plays a Vital Role in Projects Implementation

In both of the two projects, support from property owners and local residents plays an important role in the executive process. In the Vancouver case, the Mountain View neighbourhood residents not only helped to provide landscaping and labour for one

of the “Country Lane” pilot, but are also committed to the lane’s maintenance (City of Vancouver, 2002). Since the concept of the Country Lane is compatible with the its policy of sustainability and conservation, the City Farmer, which is an organization promoting urban agriculture and other sustainable development solutions actively involves in the pilot and are dedicated to the long term maintenance (City of Vancouver, 2002). In the Chicago Green Alley Handbook, neighbouring property owners are recommend to employ best management practices to enhance the performance of their green alley. The initial pilot successfully proved the positive effects that alternative techniques brought for those who were skeptical of the program.

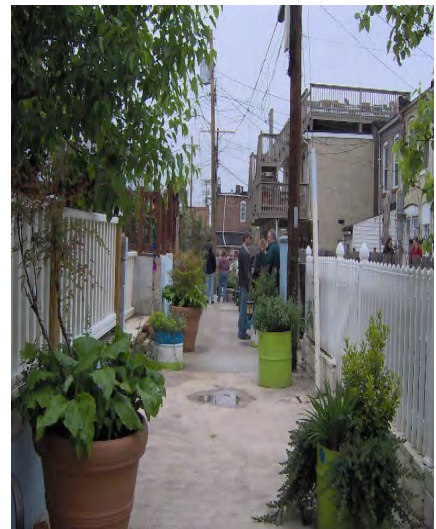
Financial Implications

Funding is a key issue to implement any green projects. At the initial stage, the Chicago Green Alley Initiative Program was funded by the Department of Transportation as an established component, along with support from the Mayor’s office. Later, due to the increasing popularity of this program, it had become a line item in the city’s annual budget from the Alderman discretionary funds for capital improvement project. This enables each

“We are trying to be proactive. When another city comes up with a good idea, it’s incumbent upon us to take a look at it and see if it works for us”

—Sam Katz

Mayor, City of Winnipeg





alderman and neighbourhood to make decisions on which green techniques will be used in green alley, as the funding system is quite flexible. Similar to Chicago, pilot of the Vancouver Country Lane program was funded by the City. Because of higher cost of the material than conventional ones, property owners are also assessed for part of the lane construction costs. The City of Vancouver also applied for grant from Federation of Canadian Municipalities to fund the project.

proposed pilot project will be a good opportunity to test the effects of various green techniques and to allay possible doubts and skepticism of the work.

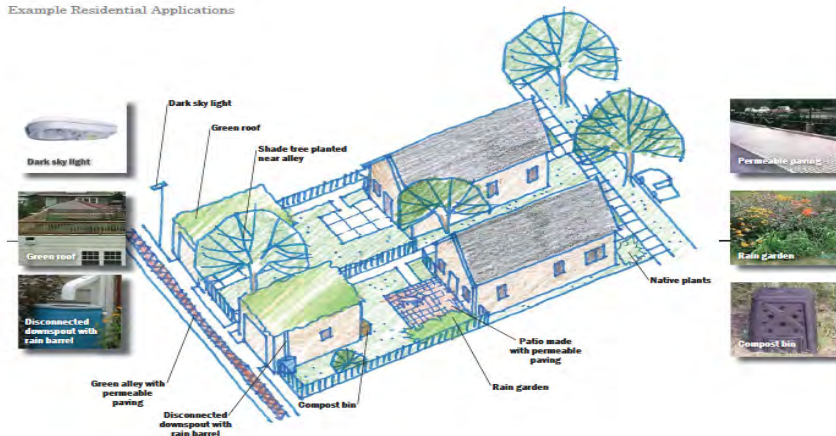
As identified in the cases of Chicago and Vancouver, property owners' support and involvement will be a key factor that has an influence of the success of the green back lane pilot project. To gain their support, two aspects of the initiative pilot should be considered: a. The effectiveness of the pilot; and b. Construction and maintenance costs to neighbouring property owners.

Looking Ahead: Winnipeg's Green Back Lane Initiative Pilot

As the first attempt to explore the possibility of greening Winnipeg's back lanes, the

If the pilot demonstrates positive functionality on addressing flood issue and/ or other environmental issues, it will definitely attract neighbouring residents to be involved in it. Meanwhile, reducing capital and maintenance costs to property owners can possibly reduce the potential doubt or objection.

Example Residential Applications



The following methods can help to realize the purposes aforementioned

- Finding cost-effective techniques and materials and adapting them to fit to the Winnipeg's climate and soil conditions is important to ensure the project success
- During design stage, survey

and focus group can solicit people's ideas and concerns on the project. Their opinions will help the design meet their needs, which in turn to gain their support

- Making flyers or newsletters to inform residents on the progress of the construction can foster their sense of involvement
- Seeking external funding opportunities (such as Federation of Canadian Municipalities, sponsorship, and partnership) is an effective way to reduce costs to adjacent property owner
- Providing incentives or subsidies on sustainable behaviours and practices, such as planting trees, using rain barrels, sweeping the lane by neighbourhood residents will further stimulate their willingness to engage in the practices and enhance the performance of the new lanes

Many of these approaches are not new, as they are frequently used in municipal planning process to solicit community members' inputs and garner support to the proposed planning project. However, employing them during municipal infrastructure renewal projects can be considered as new applications.

Great sustainable development projects are often a combination of planning and design, and improvement of both physical and social aspects. Planners, who aid integrative planning process, have a key role to play in helping municipalities achieve sustainable development goals through infrastructure redesign and renewal projects.

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Images

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