Growing Green: 
Green Streets

Smart Growth Street Designs are based on a network of well-connected streets that minimize the impact of roadways on the environment, while providing multiple ways to move through a community. Streets designed for more green space have substantial benefits for stormwater management. However, the underlying pattern of streets is just as influential. “Green street” design includes the following.

- Increasing Connections
- Narrowing Street Widths
- Promoting Stormwater Absorption Through Low-Impact Development

Increasing Connections

Conventional street layouts follow a hierarchical system based on commonly accepted engineering guidelines. Smaller roads serve residential areas and feed into connector roads known as arterials. Arterials funnel traffic to regional roads and highways. This funneling process often creates chokepoints and limits alternative routes. Local governments and states are moving away from a strict separation of land uses and demanding connected, multi-modal street networks. Model solutions are contained in the Institute for Transportation Engineers (ITE) guidebook "Traditional Neighborhood Development Street Design Guidelines".

Narrowing Street Widths

Reducing street width lowers the level of impervious cover, stormwater runoff and pollutants associated with new development. Many communities require residential street widths as wide as 40 feet to accommodate two parking and two moving lanes. In areas with fewer than 500 daily trips, however, streets can be as narrow as 22 feet without sacrificing emergency access, on-street parking, or vehicular and pedestrian safety. Revisions to current standards are often needed to promote narrower residential streets. The benefits can be substantial, however. Narrower streets in residential areas slow traffic, reducing the rate of accidents and injuries. Families appreciate the safer environment for their children. Fire officials in many communities affirm that narrower, connected street networks still provide emergency vehicles adequate access to households in need.

Green Streets encourage the use of landscape elements to absorb rainwater and reduce runoff.
Growing Green:
Green Streets

Promoting Low Impact Development

Greener streets offer a low-impact development approach to improving stormwater management. Narrow street widths leave room for landscape elements like sidewalk planters and tree boxes to catch and store rainwater. Replacing a curb and gutter system with grassy swales slows the passage of rainwater over land and improves its quality before it reaches local waterways. Bioretention features, like curb extensions and sidewalk planters, can add roadside appeal while promoting important biological processes. Permeable pavement increases a street’s green factor further, providing runoff storage and pollutant removal. The Better Site Design Handbook provides officials with a valuable way to review their own codes and ordinances to determine if the codes allow for greener alternatives to conventional street layout.2

An attractive “green street” in Ocean Springs, MS. Photo by Kimberly Miller, AICP

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<th>Tools</th>
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<th>POLICIES • TOOLS • LINKS</th>
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|       | Preserve Open Space, Farmland, Natural Beauty, and Critical Environmental Areas | Encourage Low Impact Development  
Create Livable Streets with street trees  
Promote Open Space Design to manage stormwater  
Reduce paved areas by eliminating cul-de-sacs  
Replace curbs and gutters with green infrastructure  
Get involved in the Campaign for Green Infrastructure |
|       | Create Walkable Neighborhoods | Check out Better Site Design Publications  
Use a Walkability Checklist to rate your community  
Nannie Helen Burroughs Avenue Great Street: Proposed Low Impact Development Practices |

*For a complete list of tools and resources, please see the “Tools & Resources Index” section of the Smart Growth and Sustainability Toolbox.
