

# PATTERNS OF GREEN INFRASTRUCTURE: TOOLS FOR URBAN DESIGN

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## EXECUTIVE SUMMARY

In this project, we initiated development of a pattern language of green infrastructure. By patterns, we mean design patterns. These are generalized solutions to recurring design situations, stated so that important criteria can be met while the specific manifestation of the solution can occur in thousands of unique ways. The purpose of this pattern language is to articulate key design concepts and solutions that allow designers or planners to develop integrated proposals for stewardship land and soft transit networks across a rural to urban transect. By surveying the literature, analyzing contemporary and historic design proposals, and thinking spatially about process and performance issues, we have identified patterns at a range of scales and outlined these by a graphic method we call pattern mapping. This way of systemic mapping reveals the interrelationships and nested structure of patterns in the built environment. The maps can be considered as drafts that will continue to evolve and expand. They also form the outline of our next book.

Of these identified patterns, we developed 13 patterns in detail, at several levels of the network. We chose to focus first on the overall patterns of LAND STEWARDSHIP NETWORK, GREEN FABRIC, and the FAMILY OF PARKS and to explore in greater depth patterns in the WATER NETWORK and HERITAGE ASSOCIATION (see pattern maps). In the process, we refined the general form of each pattern from what was initially proposed to include: 1) Context, how it contributes to larger patterns; 2) Problem, a concise statement of the problem with relevant issues, including identifying the important elements and their relationships, 3) Forces, the causes and contributors to the problem that must be resolved by the solution; 4) Reasons, explaining why the solution is necessary and good; 5) Rules, a generalized design guideline and diagrammatic solution, 6) Tool(s), which helps the designer to make important decisions, 7) Example(s) of how the pattern has been used in an elegant way by a designer; 8) Subpatterns, which the pattern helps to organize, and 9) Resources for further information. Patterns published in this way are intended as reference material to inform the creative process.