Finding Space:

A Field Guide for Incorporating LID into Military Historic Districts

Low Impact Development (LID) has two main components: non-structural practices and structural BMPs. Non-structural practices are large-scale planning and design strategies to minimize the impacts of development. Structural BMPs are smaller-scale designed and constructed interventions that directly manage stormwater volume, velocity, and quality. Both practices maintain or reintroduce hydrologic system functionings to a site (U.S. Army Corps of Engineers 2013, 1-3).

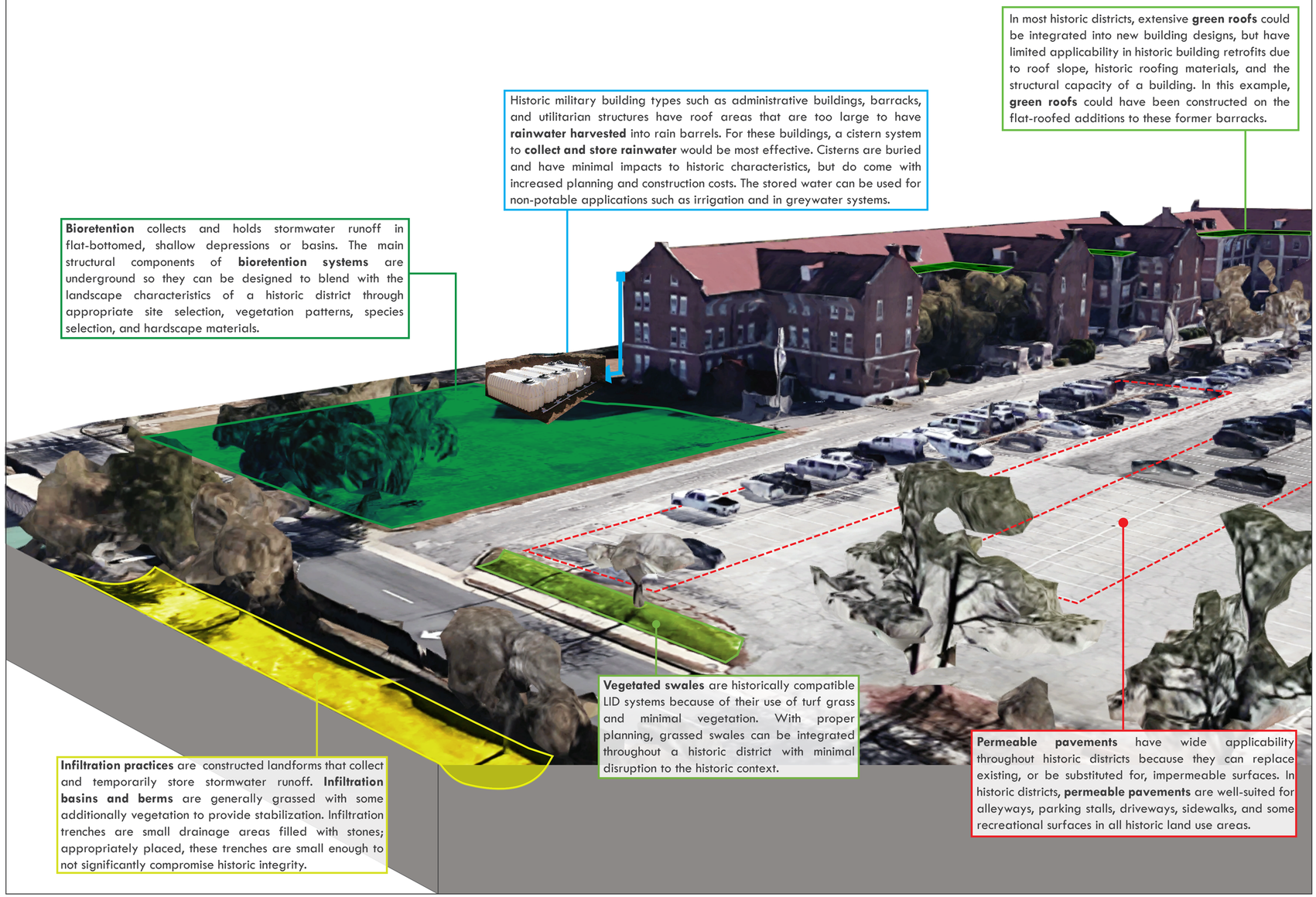
In historic districts, structural LID BMPs are the most effective and easiest to integrate. Structural BMPs work by collecting and slowing runoff from impervious surfaces. Runoff, also described as sheetflow, can carry nonpoint source pollution, excessive sediment, and debris that LID BMPs are designed to address (U.S. Army Corps of Engineers 2013, 2.26).

The specific aim of LID is to allow for "full development of the property while maintaining the essential site hydrologic functions" (EPA 1999). LID addresses sustainable stormwater management with the goals of:

- Reduced and delayed stormwater runoff volumes
- Enhanced groundwater recharge
- Stormwater pollutant reductions
- Reduced sewer overflow events
- Increased carbon sequestration
- Urban heat island mitigation
- Improved air quality
- Added wildlife habitat and recreational space
- Improved human health
- Increased land values

Locating and sizing structural LID elements is determined by climatic conditions, land use, calculated runoff volume, soils, and the complexities of the overall existing stormwater management system. Selecting the appropriate LID BMP to accommodate all factors is essential for the successful functioning of the system. In developed areas, like historic districts, structural BMPs are associated with, connected to, and located near impervious surfaces such as streets and alleyways, parking lots, driveways, and roofs (U.S. Army Corps of Engineers 2013, 2-26).

Potential Locations of LID BMPs



Ellen R. Hartman
ERDC-CERL
Ellen.R.Hartman@usace.army.mil
217-398-5305

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The DoD has been tasked by the Energy Independence and Security Act of 2007 and EO 13514-Federal Leadership in Environmental, Energy, and Economic Performance to conserve and protect water resources through increased efficiency, reuse, and management. As a result, sustainable stormwater management strategies are being incorporated throughout the military's built environment to manage stormwater in ways that work with natural hydrologic systems. Collectively, those strategies are called Low Impact Development (LID).