

uses of vacant lots

Swales

1. Grass Swales
2. Dry Swales with Filter Media
3. Wet Swales

"In general, swales can be used to serve small areas, less 10 acres in size, with slopes no greater than 5%. The seasonal high water table should be at least 1 to 2 ft below the surface and buildings should be at least 10 ft from the site. Use of natural topographic lows is encouraged, and natural drainage courses should be regarded as significant local resources to be kept in use..." There is greater pollutant removal at longer swale lengths. (200 feet rather than 100 feet).

"Swale systems require dry soils with good drainage and high infiltration rates for better pollutant removal...The suitable textural classes of the soil underlying the swale are sand, loamy sand, sandy loam, loam, and silt loam. Heavy clays that would not support good vegetation and would promote ponding should be avoided."

Seasonal differences: "Fall and winter temperatures force vegetation into dormancy, thereby reducing uptake of runoff pollutants, and removing an important mechanism for flow reduction."

Vegetative Filter Strips

For urban areas the recommended values of overland flow are reduced to 150 ft over pervious surfaces and 75 ft over impervious surfaces...The contributing drainage area should kept relatively small and a maximum limit of 5 acres has been suggested...In urban settings, filter strips are most effective in treating runoff from isolated impervious areas such as rooftops, small parking areas and other small impervious areas. Filter strips should not be used to control large impervious areas.

VFSs should be used with soils having good infiltration rates...of 0.27 in/hr or higher...(sandy loam, loamy sand, loam). Soils with lower infiltration rates can also be used but the width of the filter strip will increase. Performance is best with longitudinal grades of 5% or less to maintain uniform sheet flow conditions. Optimum filter strip lengths are between 66 to 100 ft.

A shallow or seasonally high groundwater table will inhibit the opportunity for infiltration. Therefore, the lowest elevation in the filter strip should be at least 2 ft above the mean high water table. If the soil's permeability and/or depth to water table are unsuitable for infiltration, the filter strip's primary function becomes the filtering and settling of pollutants.

from EPA Best Management Practices



North Philadelphia, PA

Pennsylvania Horticultural Society and Philadelphia Water Department

To combat combined sewer overflows, vacant lots are regraded with trenches and berms that absorb stormwater into the ground over 24 to 36 hours.

"We hope to create a whole series of 'natural sponges' in the city that reconnect the urban land to the natural water cycle." - Glen Adams, Philadelphia Water Department

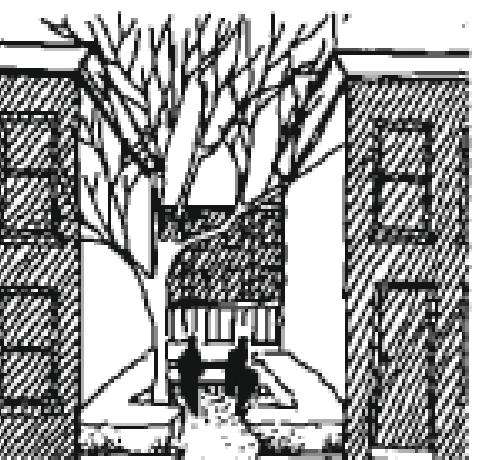


Vacant Land Types

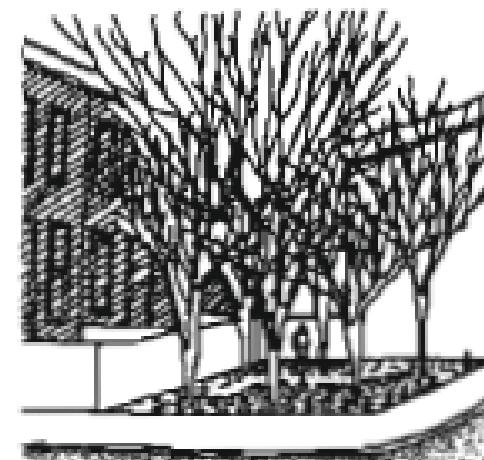
from Vacant Land: A Resource for Reshaping Urban Neighborhoods. West Philadelphia Landscape Plan. 1990.

"Vacant land too often is regarded as a monolithic problem requiring a monumental solution. Yet vacant lands are extraordinarily diverse in both their physical character and social context...**Location, size and shape, physical conditions, and ownership** of vacant land all influence its effect upon a neighborhood and its potential use."

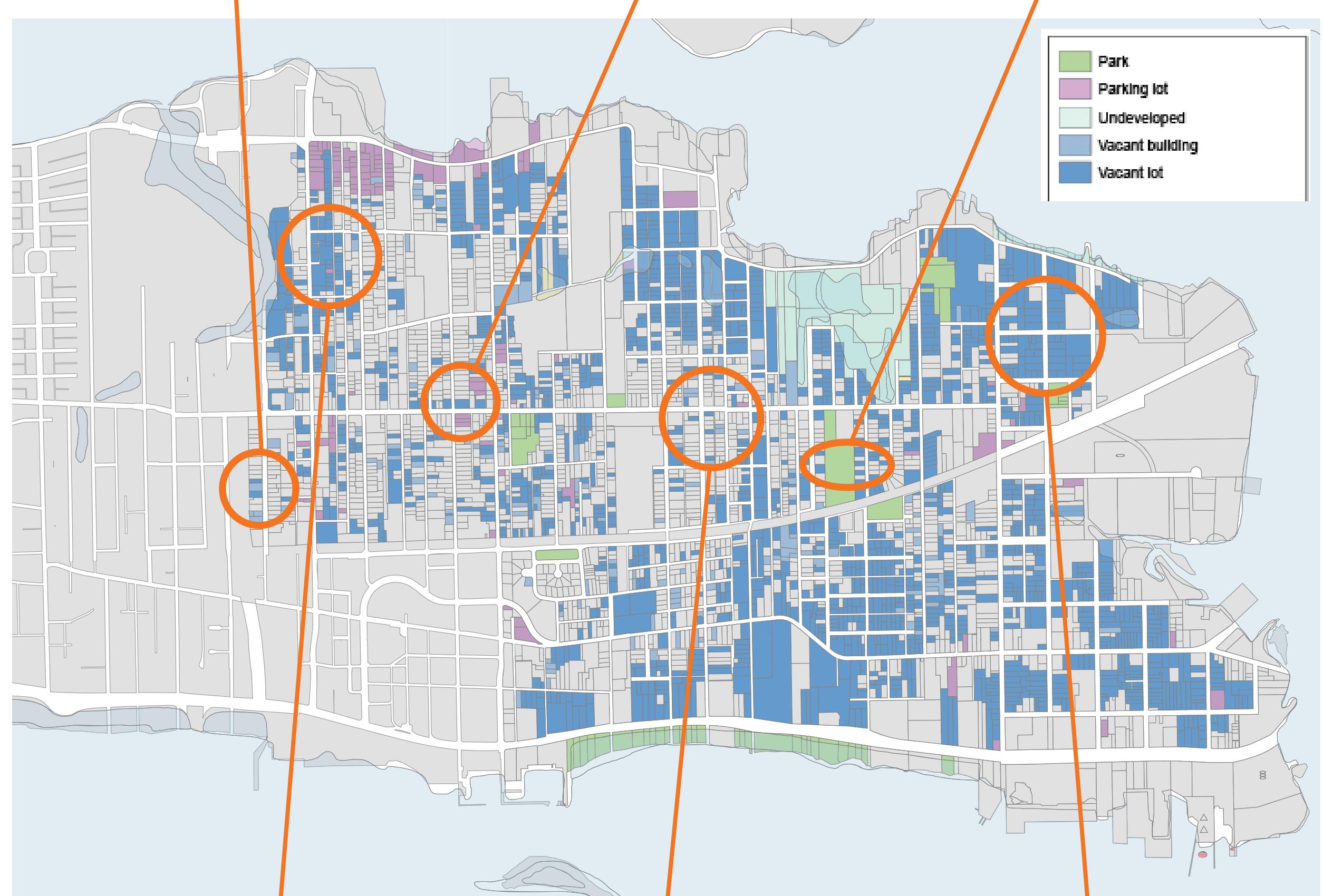
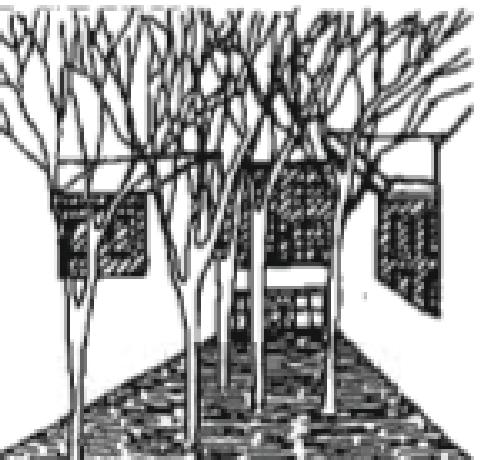
Missing Teeth



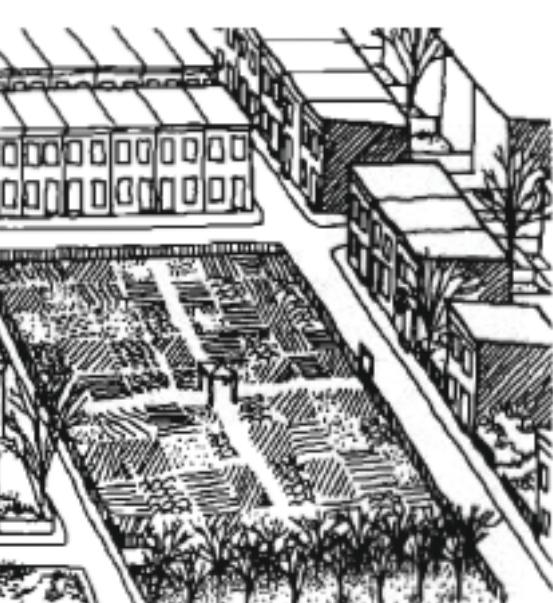
Vacant Corners



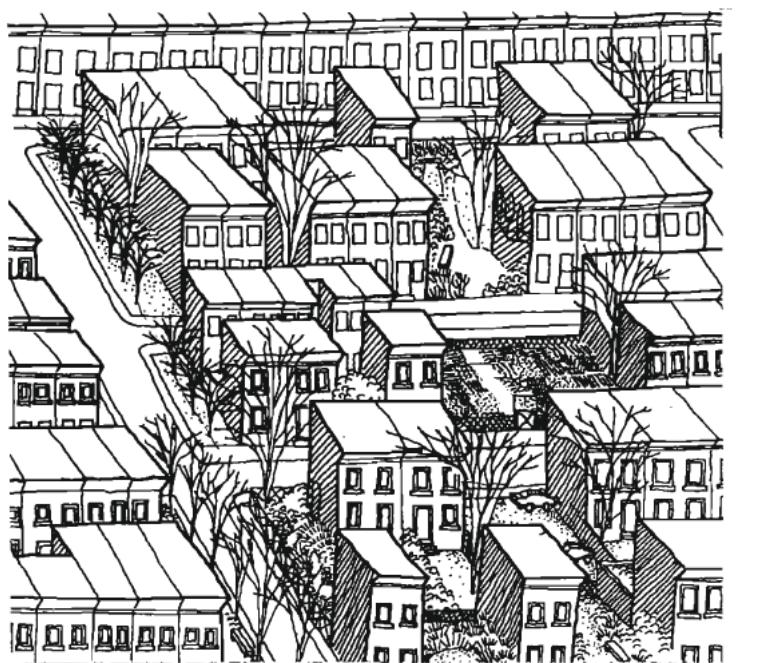
Connectors



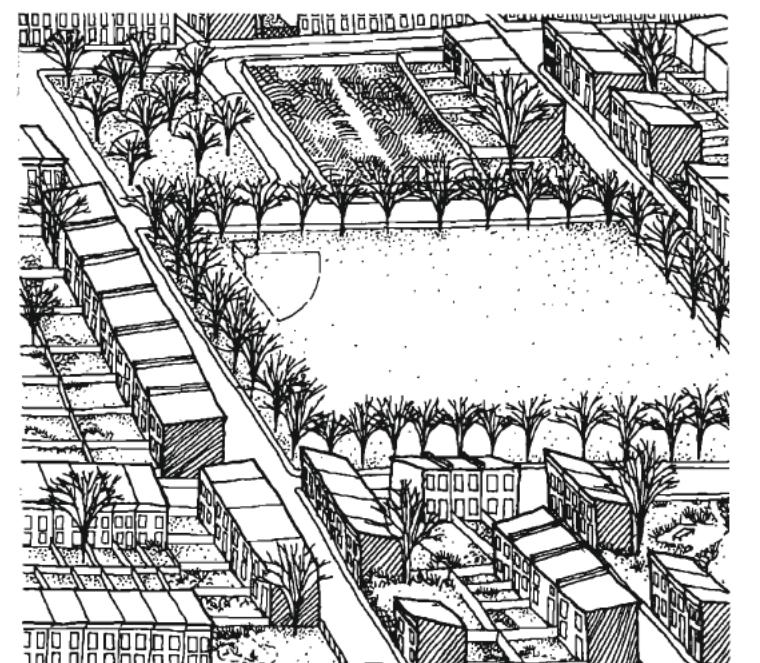
Vacant Blocks



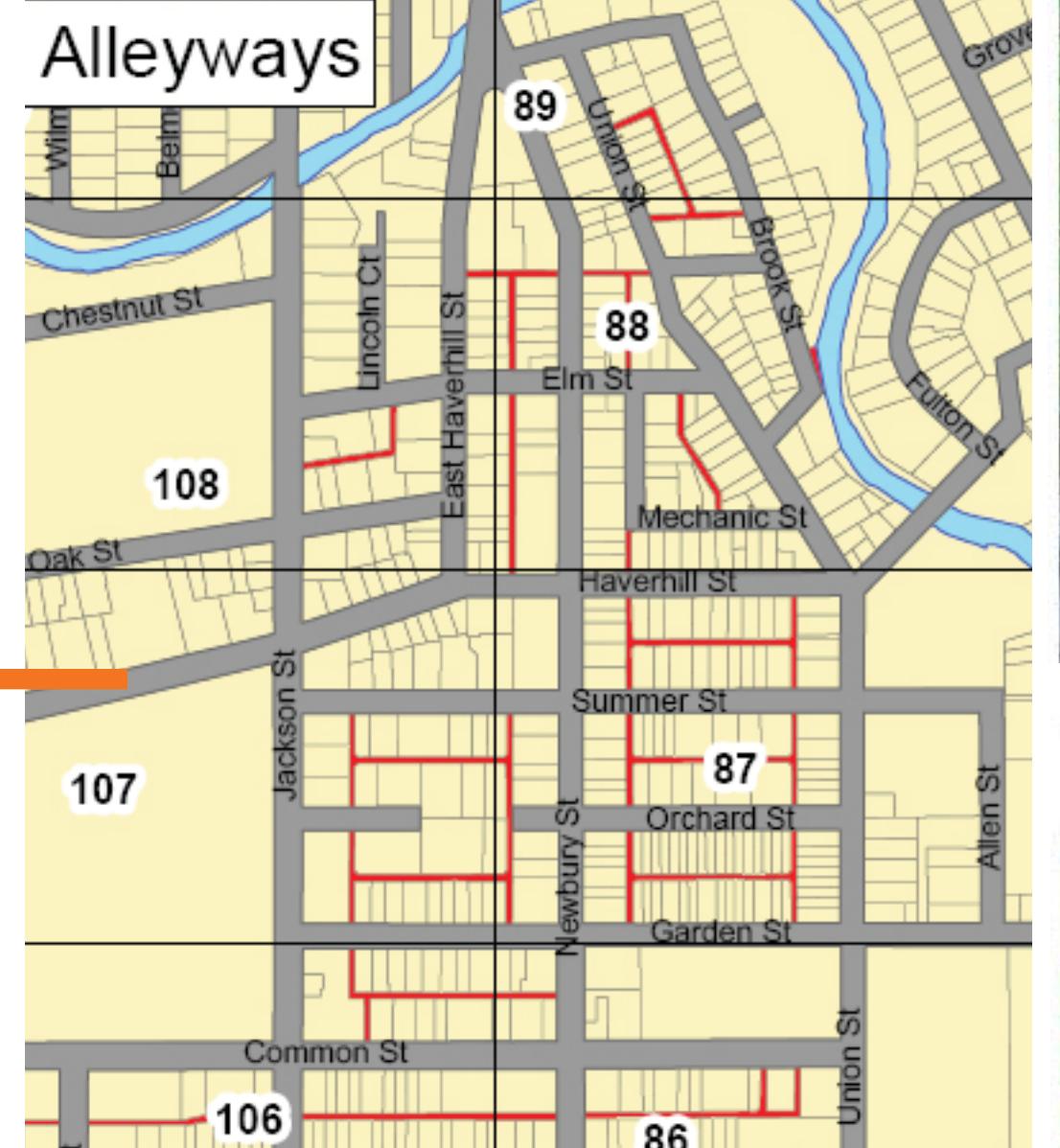
Swiss Cheese



Multiple Contiguous Blocks



"The physical conditions of the vacant lot - the character of the soil and its drainage; steepness of slope; patterns of sun and shadow; and the types of plants - are all important factors that influence how difficult it will be to reclaim the lot and which potential uses are most appropriate."

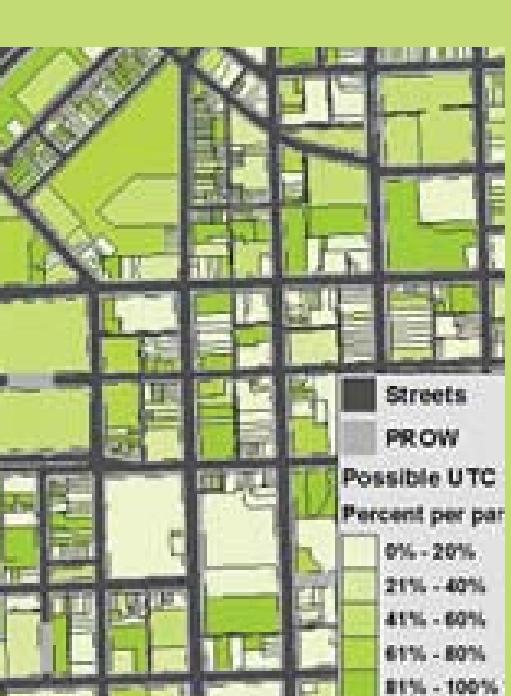


North Common Neighborhood, Lawrence, MA

Green Alleyways project of Groundwork Lawrence and Lawrence CommunityWorks



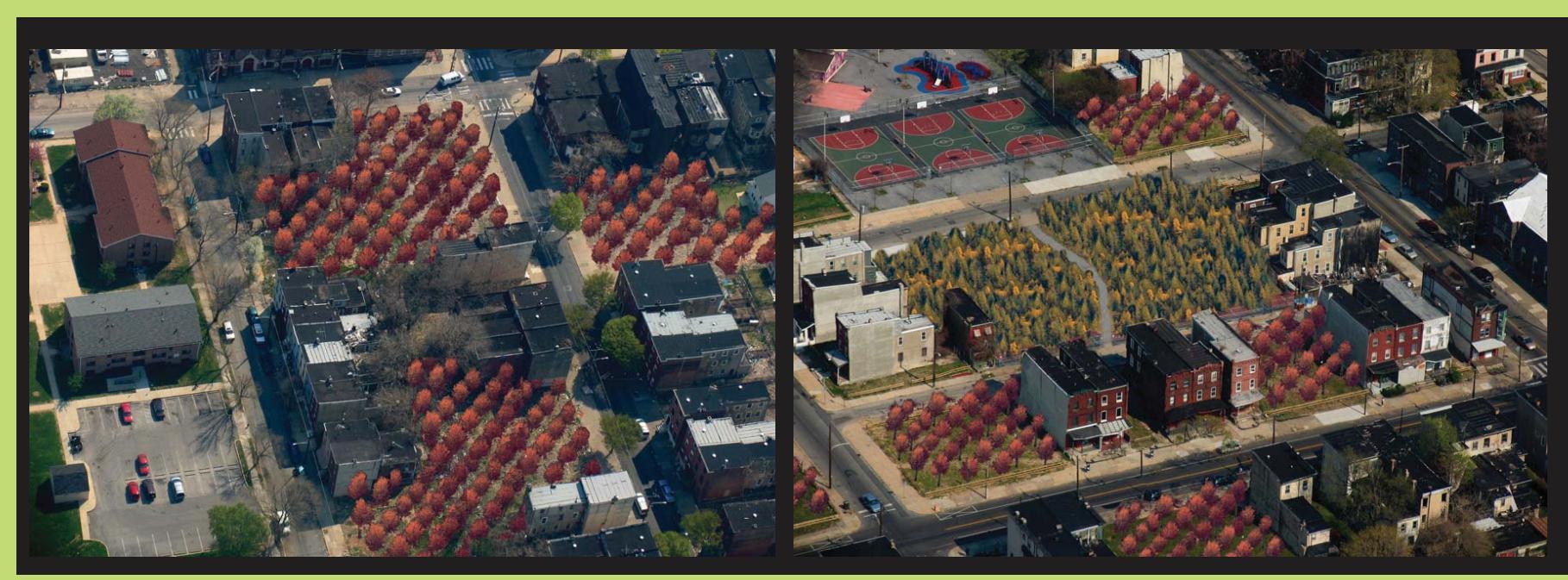
A system of neglected neighborhood alleyways (collectively making up more than 2 acres of land) are transformed by volunteer effort into a "low impact development" demonstration project that links the community. Rain gardens, vegetated swales, and selective regrading are used to slow and infiltrate water onsite rather than reaching the stormdrains and Merrimack River.



Tree Baltimore Urban Tree Canopy Initiative
www.parksandpeople.org/
www.ci.baltimore.md.us/government/recnparks/treeBaltimore.php

Tree Canopy

"The **silt soils that support live oak forests** represent some of the best agricultural land in the region, and much has been cleared for that purpose. Nonetheless, there are **abandoned fields in the New Orleans area that have regrown to forests** now about 73 years old. The sequence is as follows: annual and perennial weeds occupy the fields for about 5 years, after which shrubs, especially southern bayberry (waxmyrtle) and roughleaf dogwood, begin to take over. By 25 years, the shrub community approximates a young forest, but live oak seedlings begin to appear and seem destined to grow into a typical live oak forest in another 50 years." - Society of American Foresters, 1980.



Philadelphia Urban Voids Design Competition
<http://www.vanalen.org/urbanvoids/>