



**Compendium of Model Sustainability Practices**

# **land use planning & design**

**ECO-CITY ALEXANDRIA**  
environment | economy | community



## LAND USE PLANNING / SITE DESIGN

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### INTRODUCTION

Development decisions and land use plans have a profound effect on the built environment – from streets and parks, to economic development, housing and transportation choices. Land use planning plays a pivotal role in guiding communities towards ecological sustainability.

Many of the environmental challenges facing us today stem from the way we have planned and developed our communities. Sprawling, automobile-centered development patterns throughout much of the country have increased travel distances between destinations, leading to traffic congestion, air pollution, and over consumption of nonrenewable resources. In addition, the built environment has replaced many forests, wetlands, and grasslands – which acted as natural filters – with the impervious surfaces of streets, parking lots, and buildings, causing more pollutants to enter the air and waterways and displacing native plants and animals.<sup>62</sup> The way communities plan for use of brownfields and greyfields also has important implications for sustainability. The cleanup and reuse of brownfield, greyfield, and other infill sites can reduce the demand for land for development on the urban fringe while improving air and water quality. How we plan and build cities can decrease pollution, protect our environment, and preserve our ecological resources, which are essential elements of ecological sustainability.

Smart Growth principles offer Alexandria and other communities a series of programs and policies that can address the environmental impacts of unsustainable growth. Smart Growth invests time, attention, and resources into restoring community and vitality to center cities and older suburbs. Smart growth is town-centered, transit and pedestrian oriented, and promotes a greater mix of housing, commercial and retail uses. It also seeks to preserve open space and many other environmental amenities.<sup>63</sup> The Smart Growth Leadership Institute (SGLI) recently released a suite of tools to help communities identify and overcome barriers to smarter growth and more sustainable development.<sup>64</sup> This tool helps communities review and revise their land use policies, zoning and development codes and project design standards in accordance with Smart Growth principles and goals.<sup>65</sup>

Smart Growth can also address the problem of climate change. While limiting emissions by developing cleaner technologies is an important piece of the puzzle in minimizing greenhouse gas emissions, it will not solve the problem, as Vehicle Miles Traveled (VMT) and land consumption rates continue to rise in the United States. In fact, even after the Arab Oil Embargo of 1973, Americans are traveling 250 percent more miles each year, due in large part to our

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<sup>62</sup> Smart Growth Network: “Smart Growth Interest Area – Environment.” Accessed January 2008 at: <http://www.smartgrowth.org/about/issues/issues.asp?iss=4>

<sup>63</sup> Smart Growth Network: “About Smart Growth.” Accessed January 2008 at: <http://www.smartgrowth.org/about/default.asp>

<sup>64</sup> The SGLI toolkit can be found at the following web site: <http://www.smartgrowthtoolkit.net/>

<sup>65</sup> Smart Growth America blog. Accessed January 2008 at: <http://blog.smartgrowthamerica.org/>

development patterns.<sup>66</sup> The degree of sprawl in communities was found to be the greatest link to a high number of vehicle miles traveled, according to a study published by Smart Growth America in 2002.<sup>67</sup> Compact, mixed-use, interconnected and pedestrian-friendly neighborhoods with transportation choices, a balance of homes, jobs, schools, and other uses – as is promoted by Smart Growth proponents – can help reduce the need to drive, foster walkability, and reduce emissions from single occupancy vehicle use.

Land use decisions can also affect public health. There is growing evidence that car-oriented development and conventional community design, with its wide streets and few sidewalks, contributes to VMT and increases health and safety risks for those who are active.<sup>68</sup> Today, nearly one in four Americans is obese, 60 percent of Americans are overweight, and only about one-quarter of Americans get the recommended amount of exercise.<sup>69</sup> Sprawling development patterns inhibit walking and biking thereby contributing to the rise in obesity levels. Additionally, land use patterns that promote single occupancy vehicle use enable the degradation of air quality caused by automobiles, which has led to more cases of respiratory illness.<sup>70</sup> Road transportation is a major contributor to the formation of ozone and smog, which aggravates asthma and other pollutants emitted by cars, such as benzene and particulate matter (i.e. soot) are associated with increased risk of lung and other cancers, particularly for those who live near major roadways.<sup>71</sup> In addition, traffic crashes are a leading cause of death and injury in the United States, with about 42,000 people killed every year, and people living in sprawling areas are more likely to die either as motorists or as pedestrians. Smart Growth communities can, instead, be places that improve public health by encouraging physical activity and social interaction, while reducing the negative impacts of traffic.<sup>72</sup>

This section of the Compendium highlights a variety of specific strategies and tools for infusing Alexandria's existing land use planning and land development systems with concepts of Smart Growth and sustainability. Note that a few of the programs and practices mentioned here were also discussed in other sections of the Compendium.

- Compact, Active, and Healthy Communities
- Sustainability Planning, Smart Growth, Development Review, and Historic Preservation
- Brownfields and Greyfields Revitalization
- Infill Development, Design, and Smart Codes

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<sup>66</sup> Smart Growth America: “Energy and Climate”. Accessed January 2008 at: <http://www.smartgrowthamerica.org/climate.html>

<sup>67</sup> Smart Growth America: “Measuring Sprawl and its Impact”. Accessed January 2008 at: <http://www.smartgrowthamerica.org/sprawindex/sprawindex.html>

<sup>68</sup> Active Living by Design: “Active Living Essentials: Land Use.” Accessed January 2008 at: <http://www.activelivingbydesign.org/index.php?id=26>.

<sup>69</sup> Smart Growth Network: “Smart Growth Interest Area – Health.” Accessed January 2008 at: <http://www.smartgrowth.org/library/byissue.asp?iss=5> and Smart Growth America: “Health.” Accessed January 2008 at: <http://www.smartgrowthamerica.org/health.html>.

<sup>70</sup> In 1991, air pollution from highway VMT was estimated to have caused between 20,000 and 40,000 cases of respiratory illness. Smart Growth Network: “Smart Growth Interest Area – Health.” Accessed January 2008 at: <http://www.smartgrowth.org/library/byissue.asp?iss=5>

<sup>71</sup> Smart Growth America: “Health.” Accessed January 2008 at: <http://www.smartgrowthamerica.org/health.html>.

<sup>72</sup> *ibid*

## COMPACT, ACTIVE, AND HEALTHY COMMUNITIES

### 1. Traditional Neighborhood Development (TND) Plan

**Location:** Greensboro, North Carolina

**Department:** Housing and Community Development, Community Planning and Development, Neighborhood Revitalization Areas

**Description:** As the concept of sustainability is being recognized as an important factor in development, a community’s “walkability” is often considered. One tool that aims to create walkable communities is a traditional neighborhood development (TND) plan. A TND is reminiscent of early 1900s development. TND design combines mixed-use housing with parks, a community center, retail shops, and restaurants all located within a quarter mile radius. Key factors in a TND plan include (1) keeping the development compact (case studies have pointed to 10-60 acre parcels of land); (2) allowing mixed-use development (dependent on the city/county code); (3) designing for multiple types of transportation (walking, driving, mass transit, etc.); and (4) consistency with prior land use (aim to support the historical and environmental integrity of the land). A model TND ordinance developed by the University of Wisconsin-Madison is found in the *References* section.

Established in 1808, the city of Greensboro, North Carolina currently has a population of 230,000. In 1995, the city comprised a TND plan to revitalize a 10-acre tract of land known as Southside. Challenges included the city wanting to maintain the historical integrity of the site, a high-speed main road bisecting Southside into two sections, and public discomfort with the new development. In the early 1900s, Southside was a very affluent community marked by sensational Victorian houses that have since been run down and dilapidated. The TND design for Southside included refurbishing 10 of these houses to their original grandeur. New housing was built next to the refurbished homes connecting old Southside with new. Martian Luther King, Jr. Highway was enhanced with “traffic calming” measures including a new buffer of street parking, signage, and increased vegetation. Though the community seemed skeptical at first, Southside has proven to be an asset to the city by providing an increase in revenue due to the retail stores. Additionally, the mixed-use multi-level income housing sold out in record time. By the end of the project, challenges were met successfully and, in 2003, the city was awarded with Outstanding Planning: Implementation for the *Southside Area Development Plan*.

#### **Alexandria**

**Match:** A majority of Alexandria’s neighborhoods (from Old Town to Del Ray and beyond) exemplify a traditional neighborhood development. Elements such as walkability and historical integrity – key concepts of a TND plan –

are already rooted within the City of Alexandria. Many new developments within the City – Eisenhower Avenue and Slater’s Lane – seem to incorporate elements of a TND as they are mixed-use developments that enable walkability. The challenge for Alexandria is adapting these principles for some of its older suburban neighborhoods. The Greensboro experience, however, provides a good template that Alexandria could adapt in its efforts to retrofit suburban form with traditional neighborhood development.

**References:** Southside Web site  
<http://www.southsideneighborhood.com/>

Southside Case Study  
<http://www.terrain.org/unsprawl/>

Greensboro’s Planning Department, Revitalization Web site on Southside  
<http://www.greensboronc.gov/departments/hcd/planning/revitalization/southside.htm>

Greensboro’s Establishment of a Traditional Neighborhood Development Plan  
[http://law.wustl.edu/landuselaw/Ordinances/Greensboro\\_TND.pdf](http://law.wustl.edu/landuselaw/Ordinances/Greensboro_TND.pdf)

2006-2007 Consolidated Annual Performance Evaluation Report (CAPER)  
<http://www.greensboro-nc.gov/NR/rdonlyres/951D28C5-E921-4B52-B51C-5C84053EF96D/0/HCD200607DRAFTCAPER.pdf>

A Model Ordinance for a Traditional Neighborhood Development developed by the University of Wisconsin-Madison:  
<http://www.wisc.edu/urpl/people/ohm/projects/tndord.pdf>

## 2. Accessory Dwelling Unit Ordinance <sup>73</sup>

- Location:** Charlottesville, Virginia
- Department:** Neighborhood Development Services
- Start Date:** 1991
- Budget and Staffing:** Two Zoning Staff, part of the operating budget, no additional funding
- Description:** The accessory dwelling unit program was developed to provide additional affordable housing opportunities in Charlottesville. Accessory Dwelling Units are important for sustainability because they provide affordable housing opportunities in areas where infrastructure already exists. The

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73 City Code Chapter 34, Division 6-Sections 34-1105 and Division 9, Sections 34-1170 and 1171

units also bring increased number of residents to a neighborhood that can create a critical mass to support mass transit and neighborhood retail.

In Charlottesville, within certain zoning districts, property owners can apply to have an accessory dwelling unit via Provisional Use Permit (Conditional Use Permit). The unit can either be located in the principle structure or an accessory structure. There are several restrictions associated with the permit which include: owner occupancy in either the principle or accessory dwelling and occupancy limits. The program provides affordable housing opportunities, while providing regulation to balance property owner and neighborhood concerns. Another award winning example of this type of program can be found in Santa Cruz, California.

**Alexandria  
Match:**

Provisions for accessory dwelling units could be implemented in any residential zoning district in the Alexandria. In addition, a program could be developed to provide technical assistance to residents who wish to consider having an accessory dwelling unit. Consideration should be given as to whether they be permitted by-right or with a conditional use permit. Note that consideration should also be given to parking and design impacts in designing such a program.

The implementation of an Accessory Dwelling Unit ordinance would require several code amendments to the Zoning Ordinance. This will take staff time, as will implementation and monitoring. Charlottesville has been able to implement this ordinance without significant increases in funding or staffing. It is recommended Alexandria also consider implementation of an ADU support program such as the one in Santa Cruz.

**Points of  
Contact:**

Read Brodhead, Charlottesville Zoning Administrator  
(434) 970-3182  
[BRODHEAD@charlottesville.org](mailto:BRODHEAD@charlottesville.org)

Carol Berg, Santa Cruz  
(831) 420-5108  
[CBerg@ci.santa-cruz.ca.us](mailto:CBerg@ci.santa-cruz.ca.us)

**References:**

Charlottesville Development Ordinances  
<http://www.charlottesville.org/Index.aspx?page=1291>

Santa Cruz Accessory Dwelling Ordinance  
<http://www.ci.santa-cruz.ca.us/pl/hcd/ADU/adu.html>

Accessory Dwelling Unit Ordinance - Fairfax County, Virginia  
<http://www.fairfaxcounty.gov/dpz/zoningordinance/>

Accessory Dwelling Unit Ordinance - Richmond, Virginia  
<http://www.municode.com/resources/gateway.asp?pid=13859&sid=46>

Accessory Dwelling Unit Report - Portland, Oregon  
<http://www.portlandonline.com/shared/cfm/image.cfm?id=59091>

### 3. Neighborhood Convenience Establishment <sup>74</sup>

**Location:** Winchester, Virginia

**Department:** Winchester Planning Department

**Start Date:** 2004

**Budget and Staffing:** 2 Planning Staff; Part of operating budget, no additional funding

**Description:** This policy was developed to address several non-conforming commercial structures in residential zones in older parts of the city that were chronically vacant. The provision provides opportunity for limited reuse of these structures. Furthermore, it encourages the reuse of existing non-conforming buildings or allows the construction of new buildings to provide personal services within walking distance to homes located in residential zoning districts, thus reducing auto travel.

A conditional use permit can be filed for a Neighborhood Convenience Establishment for reuse of an existing building or construction of a new building. The conditional use permit allows public input and additional mitigation.

Winchester has had a significant amount of interest in this program but has not seen many formal applications. Consideration will have to be given to the site design issues that could be associated with these sites (i.e. parking, lighting, and landscaping).

This policy could be implemented in Alexandria to facilitate reuse of non-conforming commercial structures or to permit the construction of small commercial structures in residential neighborhoods. The provision would require changes to the zoning ordinance as well as additional staff time for processing of applications.

**Points of**

**Contact:** Tim Youmans, Winchester Planning Director  
540-667-1815  
[tyoumans@ci.winchester.va.us](mailto:tyoumans@ci.winchester.va.us)

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<sup>74</sup> City Zoning Ordinance Section 1-2-68

**References:** Winchester Zoning Ordinance  
<http://www.winchesterva.gov/planning/zoneord.php>

#### 4. Bicycle Parking Ordinance <sup>75</sup>

**Location:** Montgomery County, Maryland

**Department:** Planning Department

**Description:** The requirements for bicycle parking have been in place for several years in Montgomery County, though the related section of the Zoning Ordinance was last updated in 2003.

The requirements work similar to standard auto parking requirements. A specific number of bicycle parking spaces are required for use depending on the size or intensity of the use.

The ordinance requirements are clear and simple and provide bicycle racks for a specific number of spaces. However, the ordinance does not provide guidance on the design of facilities to encourage their use. Moreover, it does not mention support facilities such as lockers and showers, nor does it look at short-term vs. long-term parking.

More extensive examples of bicycle parking requirements can be found in Portland, which also provides design guidance for bike facilities

#### **Alexandria**

**Match:** The provision could work well in an urban environment such as Alexandria. The City has in the past required bicycle facilities as a provision of development applications (for example, for the Whole Food Project on Duke Street). Alexandria would need to amend the zoning ordinance to implement this provision. Implementation of these requirements can be carried out at site planning and permitting.

**References:** Rockville Department of Parks and Recreation  
<http://www.rockvillemd.gov/recreation/bicycling/bike-parking.htm>

American Legal Publishing Corporation: Online Library  
[http://www.amlegal.com/montgomery\\_county\\_md/](http://www.amlegal.com/montgomery_county_md/)

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<sup>75</sup> County Zoning Ordinance Section 59-E-2.3

BicyclingInfo.org: Bicycle Parking  
[http://www.bicyclinginfo.org/de/park\\_basics.cfm](http://www.bicyclinginfo.org/de/park_basics.cfm)

Bicycle Parking Requirement - Naperville, Illinois  
[www.naperville.il.us/dynamic\\_content.aspx?id=743](http://www.naperville.il.us/dynamic_content.aspx?id=743)

Bicycle Parking Requirement and Design Guidelines - Portland, Oregon  
[www.portlandonline.com/transportation/index.cfm?c=34813&a=58409](http://www.portlandonline.com/transportation/index.cfm?c=34813&a=58409)

Bicycle Parking and Design Requirements - Denver, Colorado  
[www.massbike.org/bikelaw/pdenver/htm](http://www.massbike.org/bikelaw/pdenver/htm)

Bike Station Program [www.bikestation.org/](http://www.bikestation.org/)

Bike Parking Requirements - Listing of Jurisdictions  
[www.massbike.org/bikelaw/parkcompl.htm](http://www.massbike.org/bikelaw/parkcompl.htm)

## **SUSTAINABILITY PLANNING, SMART GROWTH, DEVELOPMENT REVIEW, AND HISTORIC PRESERVATION**

### **1. Sustainability Elements and Smart Growth Policies within Comprehensive Plans**

**Location:** Denver, Colorado

**Department:** Denver Planning Department

**Started:** Adopted in 2000

**Budget and Staffing:** Part of operating budget, no mention of additional funding

**Description:** In 2000 the City of Denver updated its comprehensive plan, which includes an environmental chapter focused on providing a framework for sustainability. The environmental chapter reviews the existing environmental conditions in the City across several environmental areas as well as outlining challenges and opportunities associated with these existing conditions. Important to note is that the objective and strategies section begins with environmental justice, which was not typically mentioned in the other environmental chapters that were reviewed. What also makes Denver's environmental chapter a best practice is the integration of sustainability goals and objectives across various city operations. Furthermore, since 2000 Denver has monitored the implementation of the plan and releases an annual report documenting success of the plan. These reports are filled with examples of how the strategies of the plan have been implemented.

## **Alexandria**

**Match:** The addition of an Environmental Chapter would enhance the Alexandria's Master Plan. The guidelines in this chapter could also be implemented at the neighborhood level via the Small Area Plans. Several jurisdictions in the state of Virginia have environmental chapters in their Comprehensive Plans. It will take an investment in staff time and outreach to the public to develop an Environmental Chapter; however, there should not be any legal obstacles to overcome in developing this chapter.

### **Points of**

**Contact:** Ellen Ittleson  
(720) 865-2923  
[ellen.ittleson@ci.denver.va.us](mailto:ellen.ittleson@ci.denver.va.us)

**References:** Denver Comprehensive Plan  
<http://www.denvergov.org/Default.aspx?alias=www.denvergov.org/compplan>

Environmental Chapter, Charlottesville, Virginia.  
[www.charlottesville.org/Index.aspx?page=1745](http://www.charlottesville.org/Index.aspx?page=1745)

Environmental Chapter - Rockville, Maryland.  
[www.rockvillemd.gov/masterplan/](http://www.rockvillemd.gov/masterplan/)

Environmental Chapter - Seattle, Washington  
[www.seattle.gov/DPD/Planning/Seattle s Comprehensive Plan/ComprehensivePlan/default.asp](http://www.seattle.gov/DPD/Planning/Seattle_s_Comprehensive_Plan/ComprehensivePlan/default.asp)

Smart Growth Master Plan Policy - Gaithersburg, Maryland.  
[http://www.gaithersburgmd.gov/poi/default.asp?POI\\_ID=379&TOC=107;83;858;379;](http://www.gaithersburgmd.gov/poi/default.asp?POI_ID=379&TOC=107;83;858;379;)

## **2. Smart Growth Chapter to Comprehensive Plan**

**Location:** Gaithersburg, Maryland

**Description:** Gaithersburg has a Smart Growth Chapter to the City's Comprehensive Plan. The Chapter provides an extensive review of Smart Growth principles and how they can be integrated into other elements of City planning and development, ranging from neighborhood design and priority funding to smart growth incentives. This chapter acts as an umbrella policy over all other elements of the City's Master Plan.

**References:** Gaithersburg Smart Growth Policy  
<http://www.gaithersburgmd.gov/documents.asp>

### 3. Environmental Standards for Development Regulation<sup>76</sup>

**Location:** Gaithersburg, Maryland

**Department:** Environmental Services

**Start Date:** 2001

**Budget and Staffing:** Part of operating budget, no additional funding; 2.5 staff

**Description:** The first set of environmental guidelines were adopted in 1995 and adopted as mandatory regulations in 2001. This policy provides consistent framework for staff to evaluate the environmental impacts of proposed development. It also provides a tool for staff to collect detail background information on environmental features within the city.

In Gaithersburg, site plan and conditional use applications must be accompanied by a natural resource inventory for each property. The inventory documents items such as streams, topography, soils, wetland, floodplains, vegetation, wildlife, etc. and provides staff with detailed information on the existing conditions so that they may consider any impacts of proposed development in terms of any state or local environmental standards.

Gaithersburg staff has expressed support for this program and that, overall, developers have been able to develop innovative solutions to meet environmental standards. They do note it is important to have a waiver provision in order to remain flexible.

#### **Alexandria**

**Match:** These standards could be integrated into the development review process in Alexandria. New review standards would take a significant amount of time to develop and implement. In addition, it is unclear whether Alexandria's Planning Department currently has staff which specializes in environmental review.

#### **Points of**

**Contact:** Erica Shingara, Gaithersburg Environmental Services Director  
301-258-6310  
[EShingara@gaitersburgmd.gov](mailto:EShingara@gaitersburgmd.gov)

**References:** Gaithersburg Environmental Standards for Development Regulation  
[http://www.gaitersburgmd.org/documents/environmental\\_regulation.pdf](http://www.gaitersburgmd.org/documents/environmental_regulation.pdf)

Environmental Review Checklist - Tacoma, Washington  
<http://govme.cityoftacoma.org/download/PDF/Apps/LUApps/Checklist.pdf>

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<sup>76</sup> Gaithersburg City Code, Section 2-10

#### 4. Historic Preservation / Environmental Sustainability Integration Project

**Location:** Boulder, Colorado

**Department:** Office of Environmental Affairs and the Historic Preservation Program

**Start Date:** January 16, 2007

**Budget and Staffing:** All of Environmental Affairs staff (9), as needed

**Description:** There are many historic buildings and sites in Boulder and since the city has a goal of becoming a national leader in environmental sustainability Boulder is looking at ways to address these sites and make them more environmentally safe and sustainable.

This program seeks to preserve historic sites while making them environmentally sustainable. Two boards: the Landmarks Preservation Advisory Board and the Environmental Advisory Board, recommend proposed changes to the Historic Preservation Design Guidelines and the Green Points Guidelines (the green building guidelines). A panel has been assembled to advise staff on technical information and different options. Also, "Policies, regulations and programs that relate to both historic preservation and environmental sustainability will be examined for gaps, mixed messages and conflicts."

This tackles the thorny issue of historic preservation from an ecological standpoint, and finds ways to make a historical city also a sustainable city. This program promotes cooperation and teamwork between departments.

**Alexandria**

**Match:** One of the things Alexandria is known for is its vast amount of history and historic buildings. This program/ study can be adapted to the many historic buildings through the City, especially in the designated historic districts of Old Town and Parker-Gray. As Alexandria becomes more sustainable, this is one program that can be applied in great numbers. The fact that Boulder is trying to address all levels of sustainability is evident by integrating even their historic buildings. Many cities ignore this, by "grandfathering in" the older buildings, but Boulder does not.

This is very applicable to Alexandria and does not require a radical overhaul of Alexandria's code to achieve it. Alexandria could simply conduct a study on how to proceed with addressing the historic buildings, starting with something small like window efficiency, and work their way up from there.

**Points of**

**Contact:** James Hewat, City of Boulder

**References:** City of Boulder Historic Preservation / Environmental Sustainability Integration Project web site  
[http://www.bouldercolorado.gov/index.php?option=com\\_content&task=view&id=3501&Itemid=490](http://www.bouldercolorado.gov/index.php?option=com_content&task=view&id=3501&Itemid=490)

## **BROWNFIELDS AND GREYFIELDS REVITALIZATION**

Brownfields and greyfields provide ideal opportunities for redevelopment in compact communities, such as Alexandria which have few large tracts of developable land. Brownfields are abandoned, obsolete, and underused industrial properties that may have environmental contamination that prevents its redevelopment. In addition to the environmental degradation, brownfields often contribute to the blight of neighborhoods and inhibit economic development. Redevelopment of these sites requires a mixture of financing, including government assessment and cleanup grants as well as high level of leadership and coordination between all involved parties including the local government and community residents. Waterfront redevelopment, the creation of affordable housing, new parks, and commercial and retail investment are the positive outcomes of effective brownfields redevelopment. Brownfields can also provide good opportunities for infill housing developments with sufficient safeguards and institutional controls in place.

Greyfield sites are defined as enclosed, climate-controlled centers that include at least 400,000 square feet of retail space. Outdated, abandoned, or dilapidated strip malls and former 'power centers' (strip malls with anchor stores like Wal-Mart or K-Mart), may also be considered greyfield sites. They can be as small as a few blocks or as large as 100 acres. Within a community these sites often lower property values, discourage new investments, and provide only limited (if any) tax revenue and jobs. The Congress for New Urbanism estimates that seven percent of all malls are now greyfield sites. Population shifts often occur for these once-popular sites to be left in favor of updated shopping centers within new suburban developments. However lonely they may seem, revitalizing greyfield sites have advantages over sites with no previous land use history. These advantages include: good location on high traffic arteries; large tract of land in a well-developed area; existing infrastructure; lack of contamination given former uses; and neighboring population density. Chilton, a professor with the University of North Carolina at Charlotte (2004) reports that "over the years, the neighborhoods [within the vicinity of greyfield sites] have changed, but the locations remain vital..." Parties involved in greyfields redevelopment include the City, the community, and a private developer.<sup>77</sup>

### **1. City of Clarksburg's Brownfields Program**

**Location:** Clarksburg, West Virginia

**Department:** Department of Code Enforcement and Engineering

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<sup>77</sup> Summary of CNU Publication Greyfields to Goldfields (2002):  
[http://static.scribd.com/docs/7rk2yny3s7dui.swf?INITIAL\\_VIEW=width](http://static.scribd.com/docs/7rk2yny3s7dui.swf?INITIAL_VIEW=width)

**Start Date:** 2001

**Budget and Staffing:** One City employee and one full-time environmental consultant. The contractor who carries out the remediation of brownfield sites costs the City \$200,000 (on an as-needed basis). A grant from the EPA provided \$336,000 for the life of the project, and the City matches 20% (\$84,000).

**Description:** In accordance with the Superfund (CERCLA) and the State of West Virginia Voluntary Remediation Program, Clarksburg developed this program to identify brownfield sites for redevelopment in the future; to obtain sites as City property; and to remediate and sustainably develop these sites. Another function of the program is to enable the City to map and compile an inventory of brownfield sites and buildings.

The number of brownfield sites in Clarksburg prompted the City to apply for grants from the Environmental Protection Agency to remediate these areas. Many of these sites are previous industrial areas or buildings.

The City pays 20% of the total cost of the program, and the EPA pays for the remaining 80%. The first phase of the program was the inventory of all brownfields within City limits and the development of an online plan of all brownfield locations. The City then chose three sites to remediate using the EPA grant. They have hired consultants who specialize in remediation of contaminated sites to work for the City to develop them.

**Alexandria Match:** Alexandria Planning staff mentioned they do not have a brownfields inventory, but that they would like to have one. Alexandria still has some industrial sites which require remediation. The City may be able to apply for EPA funds for the development of a brownfield inventory.

**References:** Clarksburg Environmental Affairs web site  
<http://www.cityofclarksburgwv.com/envIRON.cfm>

**Point of Contact:** Keeling, John. MSES Consultants, Inc.

## **INFILL DEVELOPMENT, DESIGN, AND SMART CODES**

### **1. Infill Development Design Code**

**Location:** Portland, Oregon

**Description:** This ordinance is part of the Portland Planning Bureau's Infill Design Project which aims to foster medium-density infill development that contributes to meeting City design objectives, such as those calling for

design that is pedestrian oriented, diverse housing options, and housing near transit facilities and centers. The program created certain restrictions and added design requirements. Program includes standardized designs homeowners can pick from.

**Points of**

**Contact:** Bill Cunningham  
(523) 823-4203  
[bcunningham@ci.portland.or.us](mailto:bcunningham@ci.portland.or.us)

**References:** Portland Infill Design Code Amendments Recommended Draft  
<http://www.portlandonline.com/shared/cfm/image.cfm?id=103872>.

## 2. Historic Chicago Bungalow Initiative

**Location:** Chicago, Illinois

**Description:** Launched by Mayor Richard M. Daley in September 2000, the Historic Chicago Bungalow Initiative is designed to foster an appreciation of the Bungalow as a distinctive housing type, encourage sympathetic rehabilitation of these bungalows, and assist owners with adapting their homes to current needs, which in turn helps to strengthen Chicago bungalow neighborhoods.

The Historic Chicago Bungalow Association (HCBA) is a non profit organization that administers the Initiative and reviews building permits prior to submission to the Department of Construction and Permits. Design Guideline approval must be secured from the HCBA prior to requesting a permit or seeking financial assistance. Owners or builders who are interested in remodeling homes may purchase pre-approved building plans that are contained within the HCBA's Pattern Book. If a design is selected from the pattern book the permits may be expedited and eligible for a variety of financial resources including grants and low interest loans.

**Points of**

**Contact:** Historic Chicago Bungalow Association  
1 North LaSalle Street, 12th Floor  
Chicago, Illinois 60602  
(312) 642-9900

**References:** The Historic Chicago Bungalow Initiative web site  
[www.chicagobungalow.org](http://www.chicagobungalow.org)

## 3. Active Communities (Form-Based Codes)

**Location:** Petaluma, California

**Description:** The City of Petaluma struggled for seven years to achieve consensus on a specific plan for a 400-acre redevelopment site adjacent to its downtown (see photos above). Despite extensive public outreach, political battles continued between residents, developers and environmentalists. The proposed zoning code was full of legalese and numbers and did not assure the stakeholders that new development would mimic the existing historic downtown. In an effort to move forward, the city hired a consultant who introduced an innovative form-based zoning code called SmartCode™. The new code focused less on separating uses and more on describing the building forms that would realize the community’s vision of a pedestrian-oriented, mixed-use district. Residents have been assured by the clarity and relative simplicity of the new code, and developers appreciate its clear rules and expedited permitting process. After only nine months of community visioning and consensus building, political adversaries agreed on the new form-based zoning code breaking the seven-year logjam. The Central Petaluma Specific Plan was adopted in June 2003, and has given a jump start to the construction of a new, mixed-use theater district.

**Points of**

**Contact:** George White, Assistant Director of Planning Services, City of Petaluma. (707) 778-4345. <http://cityofpetaluma.net/cdd/cpsp.html>

#### 4. Transit-Oriented Development

**Location:** Milpitas, California

**Description:** The Milpitas, California Midtown Specific Plan advances a cohesive vision for the future development of this Northern California city. The plan, informed by more than 25 hours of public meetings, interviews and workshops, establishes design standards for future mixed-use and higher density transit-oriented development around light rail and future Bay Area Rapid Transit stations. A network of parks, plazas and bicycle trails are also included to help unify new neighborhoods within the site. Finally, the plan employs a Program EIR which helps to relieve additional environmental analysis by incorporating mitigation measures into the plan’s policies. In this way, the program EIR can help expedite the environmental review process for individual projects and encourage private investment in the area.

**Points of**

**Contact:** James Lindsay, City of Milpitas, (408) 586-3274  
[www.ci.milpitas.ca.gov/midtown/default.htm](http://www.ci.milpitas.ca.gov/midtown/default.htm)

**References:** Neighborhood-scale Planning Tools to Create Active, Livable Communities

[http://www.activelivingleadership.org/uploads/PDFs/brief\\_LGC\\_neighborhood\\_planning\\_2004.pdf](http://www.activelivingleadership.org/uploads/PDFs/brief_LGC_neighborhood_planning_2004.pdf)

## 5. Austin “McMansion” Ordinance

**Location:** Austin, Texas

**Description:** On September 28, 2006, the City Council of Austin, Texas approved new residential regulations for single family, duplexes, and other non-multifamily residential development. This ordinance is intended to minimize the impact of new construction, remodeling, and additions to existing buildings on surrounding properties in residential neighborhoods by defining an acceptable buildable area for each lot within which new development may occur. The standards are designed to protect the character of Austin’s older neighborhoods by ensuring that new construction and additions are compatible in scale and bulk with existing neighborhoods. Some of the major components of the bill include:

- Limits the size of new and remodeled structures;
- Adds new provisions to the City’s definition of gross floor area that explain how square footage must be calculated;
- Adds a building envelope requirement, created by side and rear setback planes;
- Add a side wall articulation requirement;
- Changes how height is measured and the maximum height depending on the building prototype;
- Decreases the minimum rear yard setback for secondary dwellings if they abut an alley;
- Amends how non-complying structures may be modified
- Requires that the two units of a duplex share a common wall and roof;
- Establishes minimum front yard setbacks that are slightly different that those originally prescribed in the Land Development Code.

**Points of**

**Contact:**

City of Austin Residential Review Division of the Watershed Protection and Development Review Department  
(512) 974-2380

Erica Eichert, Supervisor  
(512) 974-2720

**References:**

City of Austin, Development Regulations  
[http://www.ci.austin.tx.us/zoning/sf\\_regs.htm](http://www.ci.austin.tx.us/zoning/sf_regs.htm)

## SUPPLEMENTAL LAND USE PROGRAMS AND PRACTICES

### 1. Ecological Footprint Analysis

**Location:** Various

**Description:** Redefining Progress, a nonprofit sustainability think tank, established the Regional Sustainability initiative in 2003 to serve the nine-county San Francisco Bay Area. The organization received a grant from the EPA to document the San Francisco Bay Area's ecological footprint. This was developed to create a baseline measurement and gain community attention.

**References:** *RegionalProgress.org*: measures the San Francisco Bay Area's progress toward the achievement of regional sustainability.

[http://www.regionalprogress.org/county/ef\\_ca\\_bayarea\\_sonoma.html](http://www.regionalprogress.org/county/ef_ca_bayarea_sonoma.html)

Ecological Footprint Analysis - Sonoma County, California

[www.sustainablesonoma.org/projects/scefootprint.html](http://www.sustainablesonoma.org/projects/scefootprint.html)

### 2. Smart Growth Scorecard

**Location:** Various; Environmental Protection Agency

**Description:** Score card allows communities to evaluate their efforts towards meeting smart growth objectives. The EPA reviewed examples from across the county to provide as a resource.

**References:** EPA Livable Communities Scorecard

<http://www.epa.gov/livablecommunities/scorecards/>

### 3. Greenprint Denver

**Location:** Denver, Colorado

**Description:** This plan was developed to outline ways the City can lead by example to achieve sustainable development. The plan will integrate sustainable practices into the City's programs and policies.

### 4. Compendium of Model Ordinances

**Location:** Austin, Texas

**Description:** This website lists examples of Model Codes and Ordinances for Sustainability for residents and students.

**References:** [www.ci.austin.tx.us/sustainable/sustcodes.htm](http://www.ci.austin.tx.us/sustainable/sustcodes.htm)

## 5. Land Use Code Simplification Project

**Location:** Boulder, Colorado

**Description:** Simplified Land Use code for the public to view; provides user-friendly code so that many more people can understand Boulder's codes.

**Points of**

**Contact:** Hewat, James. City of Boulder. e-mail correspondence. May 7, 2007.

**References:** Town of Telluride website. May 4, 2007.

<http://www.town.telluride.co.us/home/index.asp?page=311>

[http://www.town.telluride.co.us/docs/gbc\\_checklist.pdf](http://www.town.telluride.co.us/docs/gbc_checklist.pdf)

[http://www.bouldercolorado.gov/index.php?option=com\\_content&task=view&id=3501&Itemid=490](http://www.bouldercolorado.gov/index.php?option=com_content&task=view&id=3501&Itemid=490)

## 6. Case Studies of Virginia Open Space Laws

**Location:** Virginia Beach, Virginia

**Description:** Lists and describes land use laws within Virginia and how much leeway cities have to incorporate sustainable land use laws/ ordinances.

**Points of**

**Contact:** Frankenfield, Barry. City of Virginia Beach Planning Department. E-mail correspondence. April 10, 2007.

**References:**

<http://www.vbgov.com/vgn.aspx?vgnextoid=9823ec410adef010VgnVCM1000006310640aRCRD&vgnnextchannel=c803a9893c5dd010VgnVCM1000006310640aRCRD&vgnnextfmt=default>

## 7. Supplemental Brownfields Projects and Programs

Glen Cove Creek Waterfront Revitalization Project  
Glen Cove, NY

[http://www.epa.gov/brownfields/pdf/ss\\_glen2.pdf](http://www.epa.gov/brownfields/pdf/ss_glen2.pdf)

Formerly a 1.1 mile long federal navigation channel, this industrial and commercial site was revitalized with \$20 million in grants and technical assistance. The site now generates \$200 million in annual sales, \$10 million in taxes, and created 1,700 new full time jobs.

**Melrose Commons Urban Renewal Area**

Bronx, NY

<http://www.cnu.org/node/1566>

Former industrial site is now home to a 110 rental unit (low-income) apartment building, 8,000 square feet of commercial space, and 29 on-site parking spaces located within the Bronx.

### **Downtown Riverfront**

Milwaukee, WI

<http://www.cnu.org/node/1483>

[http://www.mandelgroup.com/condominiums/condo\\_detail.cfm?c\\_id=8](http://www.mandelgroup.com/condominiums/condo_detail.cfm?c_id=8)

Eight acre site of a former tannery is expected to include 395 condos, 88 apartments, and up to 30,000 square feet of commercial space along Milwaukee's riverfront at a cost of \$175 million.

### **MacKenzies' Bakery**

Kalamazoo, MI

[http://www.epa.gov/brownfields/html-doc/ss\\_klam2.htm](http://www.epa.gov/brownfields/html-doc/ss_klam2.htm)

A 3.5-acre former junkyard site with limited contamination was revitalized in 1997 to a bakery and retail store which has about 15 employees and contributes up to \$12,000 of tax revenue on an annual basis. A \$100,000 brownfields grant funded the site.

## **8. Supplemental Greyfields Projects**

### **Bethesda Row**

Bethesda, MD

[www.bethesdarow.com](http://www.bethesdarow.com)

Revitalized a seven block area that was built in 1945 and 1975. The site now includes 31 shops, 21 restaurants, one movie theater, and 180 luxury rental apartments.

### **Market Common**

Arlington, VA

<http://www.mccafferyinterests.com/content/current/mcc.htm>

Revitalized a 10-acre area now includes the following: 240,000 square feet of prime retail, the completed project will include 300-Class A apartments, 87 townhomes, 100,000 square feet of office space and nearly 1,200 parking spaces.

### **Belmar**

Lakewood, CO

[www.belmarcolorado.com](http://www.belmarcolorado.com)

Formerly the site of Villa Italia Mall, a shopping mall that opened in the 1960s, Belmar now includes 1,300 homes, 900,000 square feet of retail space, a 250 room hotel, 4 acres of park land, a grocery store, and 9,000 parking spaces.

## USEFUL LINKS

- American Planning Association  
<http://www.planning.org/>
- Neighborhood-scale Planning Tools to Create Active, Livable Communities  
[http://www.activelivingleadership.org/uploads/PDFs/brief\\_LGC\\_neighborhood\\_planning\\_2004.pdf](http://www.activelivingleadership.org/uploads/PDFs/brief_LGC_neighborhood_planning_2004.pdf)
- Leadership for Healthy Communities  
<http://www.activelivingleadership.org/>
- Creating a Regulatory Blueprint for Healthy Community Design  
[http://www.activelivingleadership.org/uploads/PDFs/rpt\\_ICMA-CommunityDesign\\_Aug2005.pdf](http://www.activelivingleadership.org/uploads/PDFs/rpt_ICMA-CommunityDesign_Aug2005.pdf)
- Grants and Technical Assistance - Environmental Protection Agency  
Website: [www.epa.gov/smartgrowth/grants/index.htm](http://www.epa.gov/smartgrowth/grants/index.htm)
- Smart Growth Research - Environmental Protection Agency  
Website: [www.epa.gov/smartgrowth/publications.htm](http://www.epa.gov/smartgrowth/publications.htm)
- Smart Communities Network website. April 30, 2007. Florida Sustainable Project.  
[http://www.smartcommunities.ncat.org/success/florida\\_sust\\_project.shtml](http://www.smartcommunities.ncat.org/success/florida_sust_project.shtml)
- State of Florida website. April 30, 2007.  
<http://www.dca.state.fl.us/fdcp/dcp/certification/2000sustainable.PDF>
- City of Orlando, Florida. Department of Planning. April 30, 2007.  
<http://www.cityoforlando.net/planning/deptpage/suscomm/suscom.htm>
- Congress for the New Urbanism  
<http://www.cnu.org/>
- Local Government Commission  
<http://www.lgc.org/>