

Sustaining Smart Growth In Montgomery County



**Prepared by the George Washington
Capstone Research Team**

**Carrie Cleveland
Denise DeMichele
Sarah Downie
Stacey Garfinkle
Michael Huang
Sarah Klein**

**For The Montgomery County
Planning Department**

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Executive Summary

Montgomery County is experiencing tremendous growth in its population and employment and this trend is only expected to continue. Over the next thirty years, Montgomery County's population is projected to surge, increasing by 32 percent. In order to accommodate the growing needs of the community, the Montgomery County Planning Board is exploring additional ways to effectively use smart growth in their designs for future growth management.

As part of the revision to their smart growth policies, the Montgomery County Planning Board ask the George Washington University Capstone Research team to select exemplary smart growth practices from across the country, and to develop case studies describing their successes. In conjunction with input from Planning Board staff, the GW Capstone Research team focused on five areas of interest and for each selected two case studies exemplifying best practices. These areas include economic redevelopment of communities, housing affordability and density, transportation demands and parking regulations, green design and stormwater management, and the citizen acceptance of growth plans.

The following summarize the lessons learned from these case studies that are applicable to Montgomery County:

- Redevelopment successes depend on a 360-degree, community-based approach
- Public/Charitable funds spur private investment
- Local areas should consider creating networks and central sources of expertise and advise to foster and attract new businesses to an economic area
- Increase housing density near transportation and existing development by reducing regulatory barriers. Allowing a mix of housing options will attract residents of different ages and income levels.
- Enact programs targeting low-income individuals
- Urban forestry programs which increase tree and canopy cover can greatly reduces stormwater runoff
- Reducing parking surface area reduces the square footage of impervious surface area, thereby reducing stormwater runoff
- Green Street Designs have the ability to decrease pollution as well as runoff
- Integrating green roofs and onsite water recycling systems can treat and reuse water for both potable and non-potable uses
- Create tailored parking requirements for new development by reducing minimums, taking into consideration development type, project context and location, proximity to transit service, and existing neighborhood characteristics.
- Implement Transportation Demand Management strategies along with incentives for the use of alternative transportation modes.
- Incorporate innovative urban design criteria in parking construction in order to minimize the impact on pedestrian environment.
- Involve the community in visioning and planning early and often
- Include amenities catered towards community to make growth tolerable
- Allow for maintenance of communities and neighborhoods; ensure quality of design
- Institute a public education campaign to inform citizens (including non-represented citizens) of the efficiencies associated with growth

These conclusions can ultimately provide the Montgomery County Planning Board with further insight on innovative smart growth applications.

Introduction-Smart Growth and Montgomery County

Montgomery County is experiencing tremendous growth in its population and employment and this trend is only expected to continue. Over the next thirty years, Montgomery County's population is projected to surge, increasing by 32 percent. With its proximity to the federal government's employment center and with the emergence of health and technology clusters, by 2030 Montgomery County is also projected to add 196,000 jobs at an increase of 41 percent. Complicating these growth factors is the shortage of affordable housing driven largely by the County's booming housing market and high per capita income, the fourth highest in the Washington, DC metropolitan region.¹ Despite the recent downturn in the housing market, this population and employment growth will continue to put a strain on the demand for housing, continuing the upward trend in housing prices.

As Montgomery County continues to find new and innovative ways to accommodate its growth, while preserving its agricultural lands and open spaces, these sustained employment and population factors necessitate the need for land use policies that focus on infill and redevelopment. Continued growth is also bringing with it a stronger focus on denser development in the form of transit-oriented development and more densely clustered mixed-use and mixed-income housing units in existing developed areas. In order to accommodate these denser development patterns, the Montgomery County Planning Board is exploring additional ways to effectively use smart growth in their designs for future growth management.

Briefly, smart growth is a planning method that enables a community to control growth. In this report, smart growth is defined as a sustainable approach to urban and suburban growth that encourages the local economy to grow and expand while preserving the environment and improving the quality of life for all residents. Generally, these ten principles are incorporated into community smart growth plans²:

- Mix land uses
- Compact building design
- Available housing opportunities and choices
- Create walkable communities
- Foster attractive, sustainable communities
- Preserve open space, farmland, and critical environmental areas
- Strengthen and direct development toward existing communities
- Provide variety of transportation choices
- Equitable development decisions
- Encourage community and stakeholder collaboration in development decisions

Montgomery County is recognized as a leader in implementing smart growth principles. Developments such as the Kentlands, and revitalized areas like Silver Spring, are lauded in a variety of publications as best practices in smart growth. Yet, despite these accolades, Montgomery County is continuing to revise its smart growth policies to better incorporate these principles into future growth plans. As Montgomery County looks toward greater infill and transit-oriented development, transforming itself into a more urban environment, challenges will arise in the form of more traffic congestion, increased housing prices, greater strain on environmental resources, placing an overall burden on the county's existing infrastructure and development.

¹ Montgomery County and the Washington Region: A Look at Economic and Demographic Characteristics. MWCOG, February 2006.

² Smart Growth Network, 2000

As part of the re-examination of their smart growth policies, the Montgomery County Planning Board ask the George Washington University Capstone Research team to select exemplary smart growth practices from across the country, and to develop case studies describing their successes. In conjunction with input from Planning Board staff, the GW Capstone Research team focused on five areas of interest and for each selected two case studies exemplifying best practices. These areas include economic redevelopment of communities, housing affordability and density, transportation demands and parking regulations, green design and stormwater management, and the citizen acceptance of growth plans. Lessons learned from these case studies are applicable to Montgomery County and can ultimately provide the Montgomery County Planning Board with further insight on innovative smart growth applications.

Methodology

In order to present the Montgomery County Planning Board with case studies of smart growth best practices, the GW Capstone Research team performed several steps in the selection of the case studies.

First, the GW Capstone Research team studied the principles of smart growth through literature reviews from experts on smart growth and organizations promoting the usage of smart growth. The team scoured numerous publications from the Smart Growth Network, Smart Growth America, and the Smart Growth Alliance. In addition, the team consulted with Gerrit Knaap from the National Center for Smart Growth Research and Education on the general principles of smart growth. The team also utilized smart growth resources from the U.S. Environmental Protection Agency and the U.S. Department of Transportation, as part of our preliminary research. Throughout this general literature review, the team also identified areas of need and challenges impacting Montgomery County's future growth and development.

After our examination of smart growth and its implications for Montgomery County, we identified five general areas of smart growth that could aid Montgomery County in achieving its growth management objectives. The GW Capstone Research team proposed these topic areas to Montgomery County Planning Board staff as areas of interest:

1. Transportation
2. Economic Redevelopment
3. Mixed-Income Housing
4. Environmental Design
5. Citizen Participation

In consultation with Planning Board staff, the research team narrowed these broad topic areas into more specific terms. Based on feedback from Planning Board staff, the research team was able to develop a more detailed objective for the selection of the case studies. Feedback from the staff led the research team to focus on finding case studies that related to the following areas of smart growth:

1. Economic redevelopment around transportation centers and central business districts
2. Housing with a focus on affordability, high-density, and the communities response
3. Transportation with a focus on parking
4. Green design with a focus on stormwater management
5. Citizen acceptance—political realities of smart growth planning

This new focus of our research that catered to the needs of the staff of the Planning Board, providing a narrower scope of research as we looked for examples of smart growth from across the country.

To find high quality examples of smart growth, the research team looked into publications that gave us award winning examples. After the communities were selected, the research team performed literature reviews to learn more about the community focusing on the needs and wants of the citizens and planning departments. More detailed information was learned through phone conversations with some of the planning staff in these targeted communities. Overall, with a better sense of what the Montgomery County Planning Board desired from this study, the team was able to perform literature reviews and interviews with a better, more focused scope of research.

Background – Economic Redevelopment

Successful implementation of smart growth policies is difficult because it requires a delicate balance of numerous smart growth principles, which often have conflicting goals. Areas concerned with economic redevelopment focus on recruiting and retaining businesses into a specific neighborhood or region, with the expectation that increased commerce may be associated with other positive externalities such as a rise in the standard of living or a drop in crime rates. Economic redevelopment, however, can be bolstered by smart growth principles and strategies. Common elements in targeted area development include the reuse of existing infrastructure/historical sites, public and nonprofit investment in conjunction with private investment, business and economic guidance as well as an emphasis on quality of life issues.

Throughout our research, Montgomery County's Silver Spring was frequently cited as an exemplary case of transit-oriented development. With that in mind, the following discussion of economic redevelopment emphasized targeted-area development.

Key Findings

1. Redevelopment successes depend on a 360-degree, community-based approach
2. Public/Charitable funds spur private investment
3. Local areas should consider creating networks and central sources of expertise and advise to foster and attract new businesses to an economic area

Community Approach and Central Organization

Economic redevelopment brings together varying interests in order to leverage resources. Often times, a nonprofit organization is formed with relevant stakeholders. This group typically includes local property owners; a city manager, mayor, or county executive (depending on government structure); business representatives; and other organizations such as the local chamber of commerce or tourism center. A central organization with a small paid staff would be able to coordinate volunteers and develop community support. Organizations will enjoy various amounts of power and serve different roles depending on the constituency. The South Side Local Development Company (SSLDC) was created in 1982 to encourage reinvestment in Pittsburgh, Pennsylvania's South Side. SSLDC was able to apply for many grants from a number of charitable foundations to renovate historic storefronts, city streetscape and housing redevelopment to the sum of \$16 million.¹ In cities such as Burlington, Iowa, property owners make an additional contribution to its nonprofit organization that guides redevelopment efforts.² The nonprofit organization advocates for businesses in a targeted area for investment and provides training and additional resources. Property owners in the area donate \$3 for every \$1000 of taxable valuation.³

Public/Charitable Support

Public and private funds have been used to spur private investment. While difficult to secure, public and charitable funds help to solidify a community's commitment to redevelopment in a holistic manner. Businesses receive an assurance that community redevelopment is more than catch-phrase while local governments and charitable foundations, with a great deal of planning, are able to argue that their contributions leverage additional private finances. Boston's nonprofit organization has engaged in collaborative efforts among local programs and community development corporations through the support of grants from the Pew

Partnership for Civic Change. Boston, like Burlington, Iowa, also provided city grants to subsidize the cost of storefront improvements.

Importance of Design and Image

Economic redevelopment is as much about creating a culture and environment of commerce and a vibrant neighborhood as it is about bringing businesses into a targeted area. Nonprofit agencies have acted as a clearinghouse for guidance and best practices for local agencies. In Boston and Berkeley, California, primary objectives of some local nonprofit agencies have been to help shape the image of the local areas. Examples of grants to develop streetscapes and new facades have already been cited and are discussed in subsequent case studies. Berkeley, however, had a different local dilemma to address. One local nonprofit set out to dispel the notion that the area was dirty and plagued with panhandling, both obstacles to new businesses. While it did have its share of homelessness, an estimated 10 percent of the homeless population panhandled.⁴ In response, the Downtown Berkeley Association spearheaded a campaign, creating and passing Measure O, a package of social services including detox center, full-service shelter, mobile crisis team and homeless outreach. The organization also developed graffiti kits to provide business owners with tools necessary to remove graffiti and has actively worked towards a cleaner and safer downtown Berkeley.

Focus on Quality of Life

The United States is no longer the manufacturing economy it once was. Location from resources and proximity to shipping lines once dictated where firms chose to locate. The rise in value of the educated worker in a knowledge-based economy allows firms increased freedoms on choosing where it locates. Smart growth policies aim at sustainable growth while improving quality of life for its residents. Specific smart growth principles with respect to mixed land use, affordability, and walkability are directly related to an individual's quality of life. Commutes to work are minimized as much as possible while available amenities are maximized. Empirical evidence indicates that traditional factors such as costs of inputs and access to markets have the greatest influence over a firm's decision to locate in a region. However, contemporary empirical analyses are finding a rise in factors such as education, taxes, and community attitudes toward businesses.⁵

Main Street Approach

The Main Street Approach is the product of the National Trust Main Street Center, a nonprofit organization in Washington DC that provides information, research as well as consulting services for many cities. This method is an economic development strategy that serves as an alternative to redevelopment based on a large chain organization or a major entertainment facility. Main Street has been undertaken by large cities and small towns across America, allowing areas to preserve historical sites and structures. It focuses on details and discourages hopes of drastic results. On the contrary, managed expectations anticipate incremental improvements.

The Main Street Approach is largely guided by its trademarked "Four Points to Revitalization" and "Eight Guiding Principles." The four points include revitalization organization, promotion, design and economic restructuring. Revitalization necessitates the support of community leaders, local businesses, and citizens. First, the Main Street Approach stresses the need for a volunteer-based program lead by a governing board and standing advisory

committees. This structure is intended to build consensus in communities. Promotion and design, the second and third points to revitalization are concerned with a positive environment, including a positive image and an inviting atmosphere. Finally, economic structuring strives to utilize existing structures, particularly historically significant buildings, to anchor neighborhoods for redevelopment.

Case Study: Burlington, Iowa

Burlington's push to revitalize its downtown area has restored almost 400 historic buildings while drawing \$33 million of private investments.⁶ Burlington was once a thriving manufacturing and transportation hub, utilizing its proximity to the Mississippi River and major railroad lines to bolster its economy. The downtown area, however, eventually faltered, losing its healthy economy to suburban shopping centers. Attempts at revitalization through a pedestrian strip mall failed and vacancy rates in the downtown area rose to nearly 80 percent.⁷

Downtown Partners, Inc (DPI) was formed in order to advance Burlington as a National Main Street Community. This nonprofit, composed of area property owners, business representatives, the City manager and various other stakeholder groups, organized itself to become much more than a community organization. It is funded in part by a \$3 contribution per one \$1000 of taxable valuation from all businesses in the downtown district.

In the last 20 years, the city's property tax revenue has increased by 34 percent. Burlington is enjoying the revenue effects of new life in properties that were previously vacant or abandoned. There were also sources of public investment. A \$1 million Chamber of Commerce grant revitalized River Park, a former hospital building into a mixed-use development complete with businesses, condominiums and an upscale restaurant. This conversion translates into an estimated \$20,000 to \$30,000 of increase in local property tax revenues.⁸

In addition to targeted redevelopment in sites such as River Park, Hotel Burlington's revitalization success shows how the Main Street Approach to economic redevelopment can preserve historic buildings. Hotel Burlington used \$1.2 million from the city's tax increment financing program to restore the building into a residential development that included 75 units of mixed-income housing for older residents. In Burlington, 87 percent of all private investment in the downtown area has made historic buildings a priority.⁹

Beyond infrastructure restoration, DPI focused on promoting a series of special events on a regular basis. Customer appreciation days are celebrated in April, sidewalk sales and summer farmers markets all go a long way to bring life to a town in a way that strip malls never could. Burlington may seem like a unique city applicable only to other Midwestern towns. However, its need to adapt to a changing economy is a very national experience.

Case Study: Boston, Massachusetts

The City of Boston tasks Boston Main Streets (BMS) to organize 19 main street programs in the neighborhood. Though created with the support of the city, local programs are each independent nonprofit agencies responsible for supplementing city support with individual fundraising.

Boston has long been known for its historic look and preserving this image was a top priority. With regards to design, a number of programs were undertaken to ensure that each of the 19 main streets made unique but coordinated contributions to Boston's look and feel. BMS acted as both a source of guidance and funding support. It provided private architects who assisted with commercial planning and individual building design additions.¹⁰ Design committees of architects, designers and urban planners worked with business owners to design

storefronts, providing assistance to over 500 businesses since 1995. Facade costs were subsidized – nearly \$1 million for almost 400 grants since 1995.¹¹ However, the key figure to remember is that the public investment has generated \$8.6 million of private investments for store front upgrades.¹²

Redevelopment in Boston certainly did not stop at facelifts. Boston employed various strategies to achieve its mission of “economic restructuring.” That is to say Boston focused on strategies such as networking events and restaurant surveys to make businesses stronger. Boston Main Streets held over 45 networking events drawing close to 2500 people in 2003.¹³ The focus was always about providing businesses with the expertise of a community. The Urban Village Concept Plan created pedestrian-friendly business districts, and balanced mixed-use retail buildings to include housing opportunities to promote investment.

BMS also employed what it named the “Corporate Buddy Program,” a network of businesses providing help to others. A Corporate Buddy contributes \$5000 to \$10,000 annually over four years in addition to resources to contribute to a pool of knowledge.¹⁴ Each Corporate Buddy must satisfy all of the following baseline requirements:

- Serve as a member of the local Main Streets Board of Directors
- Commit a minimum of six hours per month to Main Street activities through a corporate liaison
- Play an active leadership role in local Main Streets fundraising activities
- Provide access to resources needed to develop a marketing plan
- Provide services by in-house marketing department or consultants to accomplish goals of the marketing plan
- Provide access to resources to produce marketing materials
- Provide technical assistance to develop business plans for local businesses
- Create volunteer opportunities for neighborhood-based employees and include Main Streets as a priority volunteer activity at the corporate level
- Where possible, supply the Main Street organization with office equipment such as computers, software and FAX machine and facilitate in kind contributions as needed
- Participate with representatives of other Corporate Buddies in an annual meeting with the City of Boston to discuss progress of Main Street districts within a city-wide context. allows corporations to increase visibility while providing financial and business support and advice¹⁵

In return, the city provides new corporations with knowledge of the district’s concerns and work plans. Moreover, Corporate Buddies are promoted by the Main Street Program including the inclusion of logos on promotional items. In 2007, Boston had 21 Corporate Buddy members including CVS, Staples and Verizon.

Conclusion

At first glance, Burlington and Boston seem like two very unique examples of smart growth and Main Street strategies. A closer look will reveal that it’s not the city, village or town that dictates success. Rather, it is the implementation of the same strategies that have lead to successful redevelopment results: local nonprofit organization engaging the community, public/charitable investments, and central clearinghouse for information and consultation services. The two case studies help to underscore the importance of these strategies.

Background – Housing

Many residents of Montgomery County are concerned about the unchecked increase of housing in the area, which has created a growing demand for services and increased traffic congestion. Montgomery County needs to encourage housing construction to accommodate the increasing population, but manage growth to maintain a high quality of life for residents. It is important to offer affordable housing options which means having an adequate supply of housing as well as having programs that target low-income individuals.

Affordable housing is generally defined as a low- or moderate-income family being able to rent or buy an acceptable dwelling while only spending 30 percent of their income.¹⁶ Critics of smart growth argue that restricting where growth can occur reduces the affordability of housing.¹⁷ It is true that prices can increase if the supply of housing does not keep up with the demand for it. However, smart growth does not necessarily limit the supply, but rather directs the location of increased housing toward already developed areas. Also, if there is a strong increase in market demand, which can occur in areas where employment levels and income are rising, prices will most likely rise regardless of the growth policy. It is also possible that implementing smart growth practices increases the desirability of an area, therefore increasing prices as more people want to live there.

When looking at the affordability of housing it is important to consider the cost of transportation, because if a person buys a cheap house far away from where they work, they may end up spending a large amount of time and money on transportation. There is also evidence that a huge obstacle to affordable housing is the imposition of regulations that limit growth that would create higher density, more rental units, or other types of affordable housing. These regulations are often due to opposition by residents and public officials, often referred to as “not in my backyard” (NIMBY)¹⁸.

Key Findings

- Increase housing density near transportation and existing development by reducing regulatory barriers. Allowing a mix of housing options will attract residents of different ages and income levels.
- Enact programs targeting low-income individuals

Importance of location: Increase housing density near transportation

It is important to build housing in strategic locations, especially where development already exists. Denser areas tend to have established transportation networks with buses or rail options. This reduces the need to drive and therefore the congestion on the roads. Building near existing jobs also reduces the amount of time a person has to spend in transit and the cost of transportation. Also, in areas with pre-existing development, it is cheaper for the government to provide services because they do not need to supply new infrastructure, although some upgrades may be needed to accommodate the larger population. Governments can charge developers impact fees to help pay for the additional services needed, but if this cost is too high it could inhibit construction or result in higher housing prices. One issue that must be taken into account when increasing density is that it is often difficult for developers to buy enough land for infill development to be able to take advantage of economies of scale, which can help make housing affordable, and is easier to achieve in the suburbs.¹⁹ This type of acquisition can take time and should be encouraged by local governments.

One strategy to achieve this denser growth is to have location-efficient mortgages.²⁰ The first place to offer this type of mortgage was Chicago, and they are now available in Seattle, San Francisco and Los Angeles. These mortgages take transportation costs into account, and offer financial incentives for people buying housing in dense locations close to public transportation.

Housing Options: Apartments, Townhouses, ADUs, live-work units

It will be easier to increase the supply of housing by removing regulations that restrict the construction of low-cost housing options. For example, many neighborhoods only allow single-family homes. While this may be appropriate for some neighborhoods, those that are closest to public transportation should have more flexibility. Allowing the construction of townhouses or apartments increases density and offers more low-cost options since they are smaller than single-family homes. Adjusting zoning regulations can allow for single-family homes to add accessory dwelling units (ADUs), such as garage apartments or free-standing cottages, which can house a family member or be rented out, making home ownership more affordable and increasing rental units in the area. Different people have different housing needs and it is important to offer a variety of options within each neighborhood, resulting in a diverse community with a mix of ages and incomes. Allowing mixed use housing can make owning a business and a home more affordable to families. In Gaithersburg, the Kentlands has successfully integrated 62 live/work units, along with townhouses, an apartment complex for seniors, and single-family homes, some with garage apartments. One family opened a restaurant and lives in a three-bedroom home upstairs, allowing the parents more flexibility in their daily routine and more time with their children.²¹

While allowing for more density, the government can still have restrictions in place to maintain the character of the neighborhood to make denser neighborhoods more attractive and more likely to be accepted by local residents. This can be done by regulating height limitations and setback requirements. However, it is important to take into account that the greater the restriction, the more expensive housing is to build. Setback requirements and minimum square footage requirements increase development costs by lengthening the approval process if developers apply for waivers. More dwelling units on less land can lead to affordability by lowering the cost of land for developers.²²

Encourage renovation of older houses

It is also important to recognize that new constructions will be expensive. The government should encourage the renovation of older units. In many places, there are standards used for new construction, such as hallway width, ceiling height, and door clearance, which are applied to older constructions as well. The cost of retrofitting an old construction to meet those standards can be prohibitive, creating more incentive to leave old buildings abandoned and build new constructions. Easing these requirements could help, although it is still very important to retain those regulations that are important to residents' safety.²³ Additionally, offering individuals low-interest home improvement loans can make it easier to improve upon the house they already have, rather than moving to larger, newer homes in recently developed areas.²⁴

Case Study: Arlington, Virginia

Over the past 30 years, Arlington County, Virginia has increased density around the metro corridor, transforming an old commercial strip into a “thriving corridor of gleaming towers and busy sidewalks.”²⁵ Placing dense, mixed-use infill development at five metro station,

planners were able to create an “urban village” while at the same time preserving older neighborhoods. The density is highest right around the metro and gradually lessens as you move further away from the transportation center. The area is the winner of the 2002 EPA National Award for Smart Growth Achievement and is currently being used as an example by Fairfax County in its efforts to transform Tysons Corner into a more transit-oriented hub.

In terms of housing, the goal of Arlington planners was to get as many people within walking distance of the metro.²⁶ They have succeeded and now there is a variety of housing and businesses and many people living there do not even own cars. However, prices in the county have increased dramatically in recent years, so much so that an urban planner working with the County noted that only a few people working in the Planning Department can afford to live in the County. This could be due to the changes that have made Arlington a more desirable place to live or it could be the result of a high demand for housing that is close to Washington, DC. Whatever the reason, this creates a problem for people who work in the County and cannot afford to buy or rent a place to live nearby.

Arlington has used several strategies to offer affordable housing to low-income residents. One tactic is through financial tools, such as the Affordable Housing Investment fund, which provides loans for developers of affordable housing.²⁷ Another strategy is through zoning ordinances, which allow developers to build additional density in exchange for the provision of affordable units as part of the construction or a contribution to their Affordable Housing Investment Fund. This saves time and money for both the developer and the county because it streamlines the development process.²⁸

Another problem the county is struggling to deal with is the squeezing out of smaller shops that cannot compete with the chain stores moving into the denser corridor. There is a concern that the city will lose its unique character. Arlington Economic Development, a department of the Arlington County government, is working to find a way to keep these small businesses, along with the larger businesses moving in.

Case Study: Minneapolis-St. Paul, Minnesota

Traffic and affordable housing are both major concerns of the local government in the Minneapolis-St. Paul region. The Twin Cities metropolitan area has grown by 40 percent in the past 35 years and traffic congestion has become a problem. Auto ownership has grown along with increased suburbanization, with more people commuting between suburbs than between suburbs and the central cities.²⁹ In a 2003 survey of metro area residents, participants chose traffic congestion as their number one concern.

The Corridor Housing Strategy is a collaboration between the City of Minneapolis and a neighborhood organization called the Center for Neighborhoods. Their role is to encourage affordable housing growth along transit corridors by including the community early on, awarding priority housing funding and acquiring important sites along transit lines. Local residents and business owners in Minneapolis worked with design and development experts to create guidelines that represented a consensus in the community about the direction of development.³⁰ The approach has won various awards such as the 2005 American Planning Association Outstanding Planning Award. Along with other policies, Minneapolis seeks to make housing affordable by offering mortgage loans and home improvement loans designed especially for low-income individuals.³¹ They also encourage developers to build affordable housing by offering low-income housing tax credits.³²

The effort for more density and affordable housing is not just at the city level, but is supported at the regional level as well. The Metropolitan Council is a regional planning agency serving the Minneapolis-St. Paul seven-county metropolitan area. In 2003, the Council won the National Award for Smart Growth Achievement in the category of “Overall Excellence in Smart Growth.” They won the award for their “Livable Communities Program,” which aims to create lifecycle and affordable housing and redevelop polluted sites. They consider housing to be affordable if it costs 30 percent or less than the income of a low- or moderate-income family.

The Minneapolis-St. Paul program began with the passage of The Livable Communities Act in 1995. This legislation takes a voluntary, incentive-based approach by offering grants to local communities. There are several grants, one of which, the Local Housing Incentives Account, focuses on lifecycle and affordable housing. The program is funded by a Metro-area property tax, authorized by the state legislature. To be eligible for the funding, municipalities must first have a Housing Action Plan, which they prepare after discussing housing goals with the Metropolitan Council.

The Council has awarded 472 grants between 1996 and 2006, for a total of more than \$160 million. One of the many projects that has resulted from this program is the Excelsior and Grand Project in St. Louis Park, which is a first-ring suburb of Minneapolis. It is a mixed-use corridor with almost 350 residential units and 160,000 square feet of retail space. The project was funded mostly by private funds, but 20 percent was public funding.³³

Conclusion

These case studies show some of the policies being enacted to deal with housing in growing communities. They highlight the need to have a commitment on the part of the local government to encourage smart growth practices. They also show that there is no single solution to solve the problem of traffic congestion and expensive housing, a range of smaller changes can be made. One major obstacle to needed changes is resistance from local residents. Many of their fears can be alleviated by discussing how they can benefit from smart growth practices and strategies for this will be discussed later in the paper.

Background – Environmental Design

Environmental design is a crucial component of smart growth. Environmental design encompasses a wide array of factors. From preserving open spaces to green building to stormwater management, environmental considerations are a necessity for any smart growth policies to be truly effective. As redevelopment and infill continues to take place in Montgomery County, environmental concerns are of paramount importance.

A key aspect of environmental design for these projects concerns stormwater management and water conservation. The U.S. Environmental Protection Agency has published several reports demonstrating how stormwater can be effectively managed using smart growth principles. In *Using Smart Growth Techniques as Stormwater Best Management Practices*, the EPA acknowledges that “better site design practices, such as low impact development, [have] emerged as mechanisms to retain a site’s natural hydrology and infiltrate stormwater within the boundaries of a development project.”³⁴ Figure 1 shows some of the best practices with regard to stormwater management. In addition to controlling runoff on individual developments, many municipalities are taking a comprehensive approach to stormwater management. The following are several management techniques that can be incorporated into smart growth in Montgomery County.

Key Findings

- Urban forestry programs which increase tree and canopy cover can greatly reduce stormwater runoff
- Reducing parking surface area reduces the square footage of impervious surface area, thereby reducing stormwater runoff
- Green Street Designs have the ability to decrease pollution as well as runoff
- Integrating green roofs and onsite water recycling systems can treat and reuse water for both potable and non-potable uses

Stormwater Management

Stormwater management can be controlled in infill development. This is true for several reasons. First, infill has the potential to reduce stormwater runoff because it rarely creates additional impervious surfaces in outlying areas; it builds on impervious surfaces that already exist. Second, infill construction utilizes existing water management and sewer infrastructure, allowing for expansion and greening of existing facilities, rather than the creation of new ones. Several specific infill policies can be utilized to reduce stormwater runoff, including the use of setbacks, mixed use zoning, and lot sizes.

Redeveloping existing sites is also consistent with smart growth principles. Since construction was previously on the site, redeveloped sites tend to have existing impervious surfaces; therefore, redeveloping them does not reduce the amount of pervious surfaces in the area.

The case studies included in this section provide insight into ways in which Montgomery County can effectively control water quality and manage stormwater runoff, under the purview of smart growth techniques. Cities in the Pacific Northwest have been on the cutting edge of smart growth and green design strategies. The award winning projects, located in Portland, Oregon, and Seattle, Washington, both demonstrate best practices with regard to stormwater management.

Urban Forestry—Tree and Canopy Program

In addition to creating green spaces and a more aesthetically pleasing environment, urban forestry programs have important implications for stormwater management. Data from several cities, including Miami and Milwaukee have shown that tree cover can significantly decrease stormwater runoff. Trees increase ground water filtration, thereby reducing the strain on stormwater runoff systems.³⁵ EPA notes that trees can:

provide erosion control and help reduce the costs of structural stormwater management, including land acquisition costs and construction of stormwater retention facilities...Tree canopy intercepts rainwater, which provides for gradual release of rainwater into streams, thereby preventing flooding, filtering toxins and impurities, and extending water availability into dry months when it is most needed.³⁶

Different types of trees have various absorption rates and growth needs, which can, in turn, affect the stormwater benefits they provide to the community. To estimate the current tree cover, as well as future additions, municipalities can purchase software such as CITYGreen, which assist in determining the stormwater benefits of trees in a given area.

Reducing Parking Surface Area

Ground level parking lots create impervious surfaces that are unable to effectively discharge stormwater runoff. To combat this problem, several solutions exist. One is to utilize parking spaces along existing streets. Switching from parallel to diagonal parking spaces along roads creates additional spaces without paving additional land. In areas with narrow existing streets, structured parking may be a viable solution. Utilizing multi-level lots, rooftop parking decks, and below ground parking facilities, reduces the amount of surface area developed for parking spaces. This, in turn, reduces the amount of impervious surfaces created by development. In addition, ordinances that limit parking in individual developments, and encourage use of public garages instead, may also prove useful for municipalities.

Making these changes in parking will significantly reduce the amount of runoff in a given area. An EPA study found that while one inch of rainfall in a meadow would result in runoff totaling 218 cubic feet, a parking lot this size would result in 3,460 cubic feet of stormwater runoff.³⁷

Green Street Design

Streets are the single largest reason for impervious surfaces in developments, accounting for nearly half of all impervious surfaces in a given residential area. The way in which streets are created and modified can have important implications for stormwater management. Using “green” designs, including the use of swales, eliminated gutters and curbs, and sidewalk design, can all help reduce runoff from existing as well as newly created streets. In addition, creating narrower streets can reduce stormwater runoff by decreasing impervious surface area.

Green Roofs and On Site Water Recycling

Sustainable stormwater management techniques typically involve the capture and reuse of stormwater runoff. Often, wastewater is also treated onsite and recycled for non-potable uses. Green roofs can assist in capturing this runoff, and there are various techniques for treating the captured water onsite.

Case Study: Lloyd Crossing—Portland, Oregon

“The habitat and tree-cover strategies will combine to form a small, mixed-conifer forest woven into urban infrastructure. A layering of green streets, pedestrian streets, habitat corridors, and bioswales will create an integrated, urban streetscape.”³⁸

Lloyd Crossing was named the American Institute of Architects’ Committee on the Environment Green Project in 2005. This massive project integrates numerous elements of smart growth and sustainability. Over the next 45 years, the Lloyd Crossing development will transform a 35-block commercial area in inner-city Portland into a sustainable neighborhood, while “dramatically improving the district’s environmental performance.”³⁹ The goal of the plan is to create 8 million square feet of development in the area, while improving Portland’s environment. The majority of the project will be infill development, with a small fraction, five percent, coming from redevelopment.

The Catalyst Project, a four-block, mixed use development located in Lloyd Crossing has served as “a testing ground for key elements of the design plan.”⁴⁰ The property’s owner, the Portland Development Commission, closely collaborated with Mithun Architects + Designer + Planners, KPFF Consulting Engineers, Landscape architecture firm, GreenWorks, PC and others, to create an environmentally friendly, mixed use space. Figure 2 shows Mithun’s rendition of the site.

In the pre-design phase, designers and planners worked closely with the municipality to determine the benefits to the city of integrating green practices into their design plan. The Resource Management Association (RMA) was created to oversee the implementation of sustainable practices, including using expected “savings from the high-performing energy and water systems to finance capital costs for new green infrastructure throughout the district.”⁴¹ The AIA notes that “water and energy systems have the shortest payback periods, and the subsequent revenue [can] be used to pay for the habitat, open space, and placemaking infrastructure.”⁴²

Landscape architect, Mike Abbate from Greenworks, PC aided in the design of landscape and habitat strategies at Lloyd Crossing. Under this plan, tree cover in the area will increase from its 2004 level of 14.5 percent to 30 percent in 2050. The plan calls for vertical and horizontal “high vegetative structural diversity,” “green streets,” and the development of two acres worth of mixed-conifer “patches.”⁴³ In addition, 50 acres of mixed forest will be restored offsite at nearby Sulliver’s Gulch, a historic neighborhood located on Portland’s east side. To connect forest patches with the Sulliver’s Gulch restoration, several additional acres of habitat corridor will be developed. Figure 3 shows an example of how green spaces have been integrated into the project.

A civil engineer from the firm of KPFF Consulting Engineers was brought in to assist with stormwater and water systems management. The onsite system involves using the “natural flow of the site to capture and treat stormwater in a system of bioswales at the downhill side of each block and intersection.”⁴⁴ Stormwater generated from public areas will be recharged into the ground after treatment. Stormwater generated from private property that cannot be reused will be treated and recharged onsite using best practices for stormwater management. The AIA notes that this strategy “will improve river quality and reduce demand on Portland’s combined stormwater and sewer system,” while increasing habitat, landscaping, and forest areas.⁴⁵

Engineers and architects worked closely on water conservation and usage issues to reach the site goal of a 30 percent reduction in potable water usage by 2050 by installing “efficient

fixtures.”⁴⁶ To meet a 60 percent decrease in overall water demand, rainwater will be collected and stored onsite for use in buildings and the installation of low-flow toilets will help conserve municipal water usage. A system will be created onsite to treat wastewater and buildings will be designed in such a way as to utilize treated wastewater for non-potable indoor uses. Essentially, all nonpotable water used within Lloyd Crossing will come from reused rainwater and blackwater that has been treated onsite. Figure 4 shows water usage on the site pre-development, in 2004, and estimates for 2050 when the entire project is complete.

The four block Catalyst Project aims to completely eliminate outside potable water usage and recycle water onsite. Potable and reclaimed water for non-potable sources will be supplied via two onsite systems. One system harvests rainwater for potable uses and the other collects and treats blackwater for non-potable uses.

Implications for Montgomery County

The Lloyd Crossing development integrated numerous smart growth stormwater management techniques that can be used by Montgomery County. In addition, Lloyd Crossing can serve as a model for sustainable management. The development has much in common with areas of Montgomery County. The project was a combination of infill and redevelopment, as is much of the development taking place in Montgomery County.

Lloyd Crossing utilized a wide array of experts in a variety of fields—including engineers, architects, designers, and landscape architects. This team worked closely together throughout the pre-design phase to ensure that all aspects of the project were in sync. This provides an important lesson for Montgomery County. Green building often implies a comprehensive, interconnected approach to all aspects of a design project. Therefore, when implementing green strategies, it is important to ensure that all players are present in the earliest planning discussions.

Finances are often a consideration in green building strategies. The initial costs of “going green” are often slightly higher than traditional construction techniques. However, green buildings usually pay for themselves within a relatively short period. In the Lloyd Crossing development, a special entity, the RMA, was created specifically to use the money saved from green stormwater management and water conservation strategies, and direct it toward funding other aspects of the project’s infrastructure. Montgomery County could consider recommending a similar set-up for smart growth projects to developers, whereby developers cover the costs of sustainable building techniques through the money saved from efficient water management programs.

Furthermore, the Planning Board can implement a county-wide program aimed at increasing tree and habitat cover, and creating forest “patches” throughout MoCo. This would aid in stormwater retention. In addition, the County can mandate future redevelopment and infill projects increase tree cover on the site by a given percentage.

Montgomery County can also require projects to have sustainable stormwater management techniques—i.e. that they recycle wastewater, capture rainwater onsite; and use this water for all non-potable purposes, as exhibited in the Lloyd Park design.

Case Study: Denny Park—Seattle, Washington

“The mixed-use urban-infill project was designed to provide opportunities for occupants to live, work, and play in close proximity, minimizing dependence on automobiles. Innovative planters

filter stormwater falling on the project site, releasing it slowly into the municipal system while allowing evaporation and transpiration.”⁴⁷

The Denny Park apartment complex located in Seattle, Washington is a project of Green Communities, a collaborative initiative between the Natural Resources Defense Council (NRDC) and the Enterprise Social Investment Corporation, who builds environmentally friendly low-income housing across the United States. The goal of Green Communities is to “transform the way America thinks about, designs, and builds affordable communities.”⁴⁸ The Denny Park development captures this aim through its environmental design.

Denny Park is a 39,700 square foot, mixed-use, infill development located in Seattle’s South Lake Union neighborhood.⁴⁹ Prior to the apartment complex, the nearly 11,000 square foot lot had been used for commercial and industrial use. Minor soil contamination on the Denny Park site was cleaned up prior to the apartments being built. The primary architecture firm involved in the project was Runberg Architecture Group, PLLC. The six story building, completed in early 2006 has been awarded Three Stars under the Master Builders Association of King and Snohomish Counties “Built Green” standards for its sustainable design. Figure 5 shows a drawing of the Denny Park building, highlighting key sustainability features of the project site.

The Denny Park site is a mixture of commercial and residential space, including 4,400 square feet of commercial space and 50 affordable housing units, ranging from studios to three bedroom units. The residential project also includes a courtyard, onsite laundry room, and community room for residents. In addition, there are 35 onsite parking spaces located below street level. Among the numerous environmental aspects integrated into the project, those concerning stormwater management and water quality will be discussed here. Excluding land purchase costs, the entire project—including the integration of green strategies—cost \$6.5 million.⁵⁰

The neighborhood around Denny Park already exhibits characteristics of “green streets.” To fit this theme, sidewalk plantings and planters around the apartment complex were added. To conserve onsite water usage, front loading washing machines, energy efficient dishwashers, low flow toilets, and a water efficient irrigation system were integral features of the Denny Park design.

Stormwater retention is a major element of the site. A series of stormwater planters on the roof of the building are a key feature of the site’s stormwater management plan. The planters are located on top of the parking garage and on a raised area above the commercial part of the site. The planters represent “the first of their kind to be approved within the city of Seattle.”⁵¹ As explained by Green Communities, the planters work in the following way: rainwater running off of the building’s certified energy efficient metal roofing is directed into the planters and:

A mix of drainage aggregate and organic soil was specially engineered to achieve specific percolation rates. The native plants selected for receiving stormwater are also drought tolerant. The plants and planters permit the rainwater to be released back into the biosphere through evaporation and transpiration, and, after it has been naturally filtered, any overflow is piled into the municipal system in a controlled manner.⁵²

Figure 6 shows two side-by-side photographs of Denny Park’s rooftop planters.

Water management techniques were also utilized at ground level. To allow faster recharge of groundwater, sidewalk plantings used special engineered structural soil and were

made at least 18 inches deep. A special sprinkler system was also engineered to be used onsite for the first two years. Estimates show that the drip irrigation system created for the site will use one-third less water than spray sprinkler systems.

With these strategies in place, water usage for the site is estimated at 563,000 gallons per year with 9,000 gallons of outdoor potable water usage and 554,000 gallons of indoor potable water usage. This breaks down to 14.2 gallons of potable water usage per square foot.⁵³

Implications for Montgomery County

Firstly, it is important to note that the designers note that during the pre-design and construction phase, a separate section of the project manual detailing green building specifications would have been beneficial for everyone involved, specifically subcontractors. Thus, enumeration of specific green strategies within the project manual would be recommended for any green building projects undertaken by Montgomery County.

The Denny Park development has much in common with development taking place in Montgomery County. The complex mixes residential and commercial uses, as do many recent projects in MoCo. Denny Park also demonstrates how affordable housing can be created using sustainable building practices. Further, it should demonstrate to Montgomery County that there are numerous resources available, including Green Communities, to assist with green building projects providing low income housing.

Like Lloyd Crossing, Denny Park utilizes “green” streets in an effort to manage stormwater runoff. However, Denny Park adds these same elements directly to the building structure through green roofs. This is certainly a technique that can be utilized by developers in Montgomery County. The Planning Board can mandate that all new sites include green roofing with integrated stormwater management techniques.

Denny Park also uses the most energy efficient household appliances available. Montgomery County can ensure this level of energy efficiency and water conservation by mandating energy star appliances, low flow toilets, and frontloading washing machines.

Conclusion

There are numerous ways in which Montgomery County can integrate sustainable and green building techniques into its waste and stormwater management systems. The techniques explained above are just a few examples of best practices from the industry. These projects are of use to Montgomery County since they share many similar characteristics—they are both infill and/or redevelopment projects and are both contained in urban settings. In addition, Denny Park’s mixed-use design fits in with current Montgomery County smart growth techniques. From the use of water conserving, energy efficient appliances to green roofs and “green” streets, these projects exemplify models of stormwater management that could be effectively utilized by Montgomery County.

Figure 1. Best Management Practices By Development Setting

BMP Strategies	Urban/High Density Settings	Suburban/ Urbanizing Areas
Strategies for individual buildings and building sites	Bio-infiltration cells, rooftop rain capture and storage, green roofs, downspout disconnection in older residential neighborhoods, programs to reduce lawn compaction, stormwater inlet improvements	Disconnecting downspouts, green roofs, programs to reduce lawn compaction, bio-infiltration cells, rooftop rain capture and storage
Low impact development (LID) or better site design strategies	Ultra-urban LID strategies: high-performing landscape areas, retrofitting urban parks for stormwater management, micro-detention areas, urban forestry and tree canopy, green retrofits for streets	Swales, infiltration trenches, micro-detention for infill projects, some conservation design, retrofitting of parking lots for stormwater control or infill, tree canopy, green retrofits for streets. Depending on location, larger scale infiltration.
Infrastructure	Better use of gray infrastructure: repair and expansion of existing pipes, installation of stormwater treatment, fix it first policies, improve street and facilities maintenance	Priority funding areas to direct development, better street design, infrastructure planning to incentivize smart growth development, improve street and facilities maintenance
Structural BMPs	Commercially available stormwater control devices, urban drainage basins, repair of traditional gray infrastructure	Rain barrels, bio-infiltration techniques, constructed wetlands
Design strategies	Transit districts, parking reduction, infill, improved use of curbside parking and rights of way, brownfields, urban stream clean-up and buffers, receiving areas for transfer of development rights	Infill, greyfields redevelopment, parking reduction, policies to foster a connected street system, open space and conservation design and rural planning, some impervious surface restrictions, stream restoration and buffers, targeted receiving areas for transfer of development, planned unit developments

Source: U.S. EPA

Figure 2. Architect's Rendition of Lloyd Crossing Development



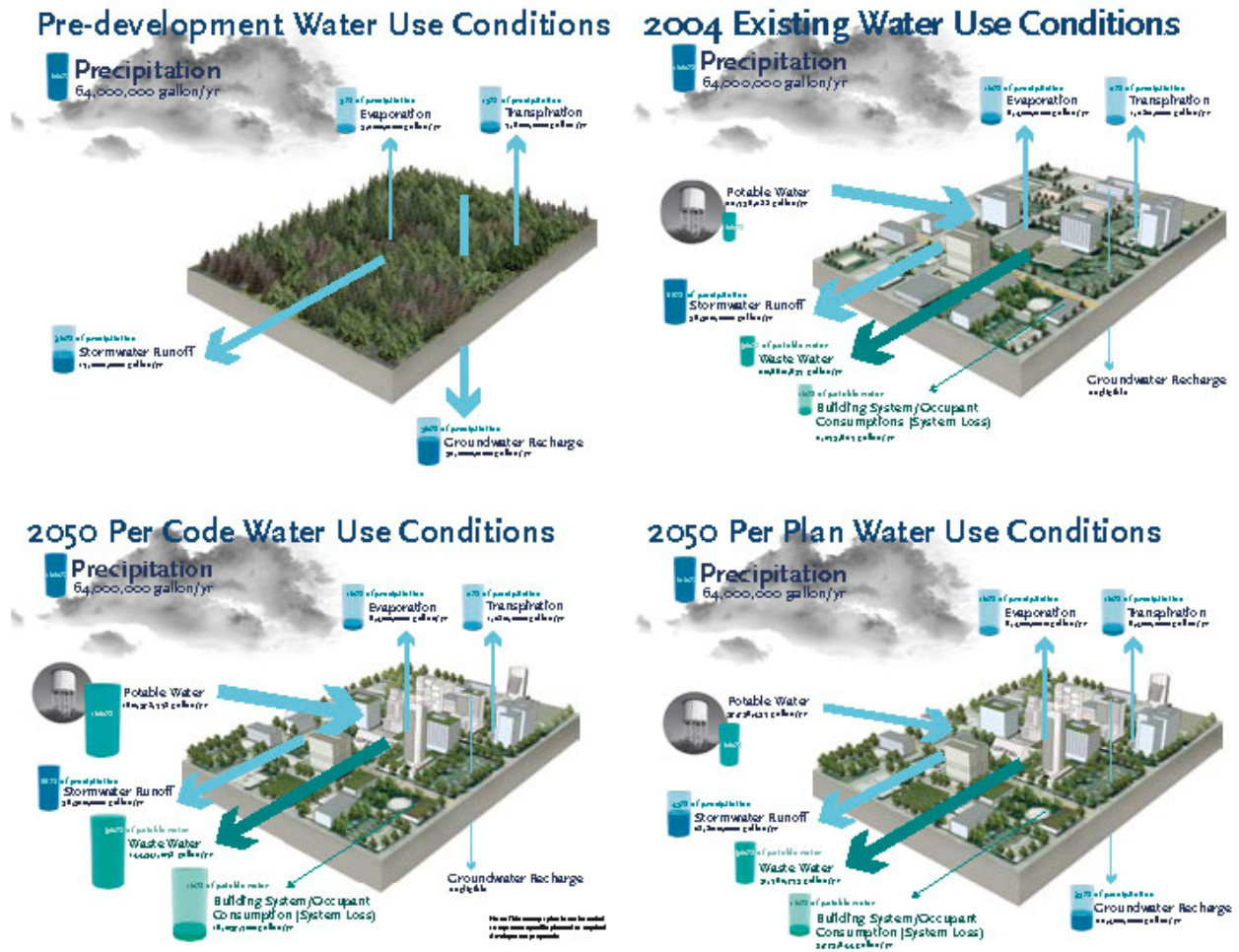
Source: Mithun Architects + Designer + Planners

Figure 3. Example of Open Spaces in Lloyd Crossing Development



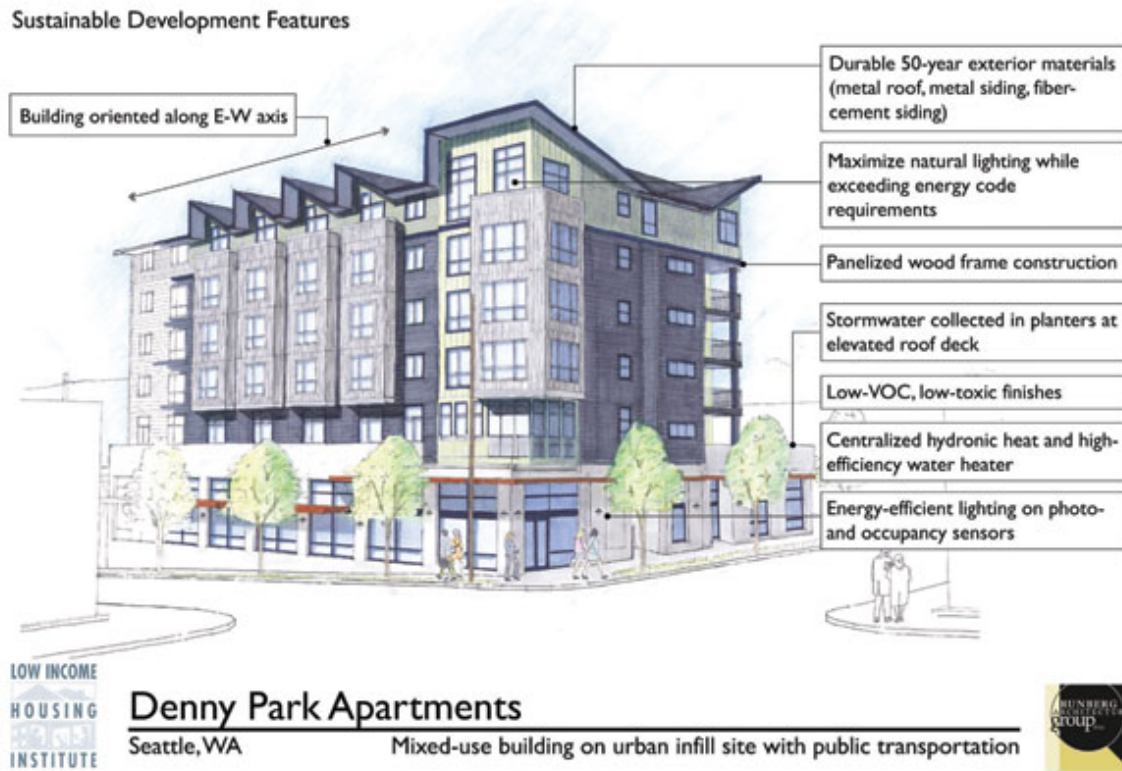
Source: Mithun Architects + Designer + Planners

Figure 4. Lloyd Crossing Pre and Post Development Water Use Conditions



Source: The American Institute of Architects

Figure 5. Denny Park Apartments—Sustainable Development Features



Source: Environmental Health Perspective

Figure 6. Two Views of Denny Park Apartments—Stormwater Collection Planters



Source: Runberg Architecture Group

Background – Parking Strategies

The continued growth and future development of Montgomery County brings with it a multitude of transportation and parking challenges. Planning projects targeted at transit-oriented development and infill can have major implications for transportation demand and needs. Accommodating the county's growth objectives without further increasing congestion can be achieved through a careful consideration of alternatives to existing transportation and parking policies.

While it is critical to provide enough parking without providing too much, integrating parking facilities into existing or redeveloping communities can often conflict with smart growth objectives. Vast expanses of surface parking can have negative impacts on water quality, walkability, and sustainable design. Multi-level parking garages can divert attention from community design and disrupt corridor appeal. A key challenge to smart growth development is identifying new ways to address the need for parking, while minimizing its negative impacts. However, there is reason to suggest that encompassing new development within a carefully thought out mobility plan based on smart growth principles and a proven parking management strategy can accommodate some of these challenges.

This section presents an overview of parking strategies that can offset challenges faced by projects in the context of smart growth. The case studies included in this section are strong examples of how parking policy is used to help promote the growth of mixed-use, urban centers. From the use of reduced parking requirements in Wilton Manors, FL to the implementation of a wide array of innovative Transportation Demand Management (TDM) policies in Boulder, CO, these two case studies exemplify best practices in smart parking.

Key Findings

- Create tailored parking requirements for new development by reducing minimums, taking into consideration development type, project context and location, proximity to transit service, and existing neighborhood characteristics.
- Implement Transportation Demand Management strategies along with incentives for the use of alternative transportation modes.
- Incorporate innovative urban design criteria in parking construction in order to minimize the impact on pedestrian environment.

Case Study: Wilton Manors, FL

In many counties and municipalities, inflexible minimum parking requirements are the norm, but they represent a barrier to better development, including redevelopment of underutilized retail spaces. Instead of imposing strict inflexible stipulations, parking requirements can be tailored to specific development projects, taking into account locational and demographic factors.

Wilton Manors, a community north of Ft. Lauderdale in Broward County, FL utilized reduced minimum parking requirements in the revitalization of a dilapidated shopping center. Featured in the Environmental Protection Agency's recent publication, *Parking Spaces/Community Places- Finding Balance Through Smart Growth Solutions*, the redevelopment of the Shoppes at Wilton Manors represents a unique blend of parking strategies. Once considered a quiet backwater town, Wilton Manors has quickly risen to become one of the most desirable places to live and work in Broward County. Fueled by its small, downtown charm, and popularity amongst an affluent gay and lesbian population, Wilton Manors' population is expected to increase by 18 percent in 2025.⁵⁴

One catalyst for this change has been the rebirth of the Shoppes at Wilton Manors, which has “evolved into one of the busiest nightspots north of South Beach.”⁵⁵ Situated along Wilton Drive, the main commercial corridor in the heart of the downtown sector, the Shoppes at Wilton Manors languished under years of underutilization until innovative parking measures rejuvenated its stature.

The Shoppes flourished when it was first built in 1953, housing a Grand Union Supermarket, a bank, a fast food restaurant, and several other small retail stores. However, by the late 1990s, nearby shopping malls and ‘big box’ stores drew business away from the Shoppes, leaving it nearly vacant and in disrepair with its tenant occupancy rate reduced to only 30 percent.⁵⁶ As the Shoppes deteriorated, the city eyed its revitalization as an anchor for redevelopment along Wilton Drive.

Discussions with City Manager Joseph Gallegos reveal that Wilton Manor’s vision for Wilton Drive was inspired by the success of Las Olas Boulevard in nearby Ft. Lauderdale. With its chic retail, restaurants, and art galleries Las Olas Boulevard is one of Ft. Lauderdale’s main thoroughfares, and popular tourist destinations. Under agreement with the two owners of the shopping center, the city teamed with a private development company, Redevco to transform the Shoppes. With input from community stakeholders, the city worked with Redevco to identify an untapped market niche—entertainment, cultural attractions, and restaurants—as the backbone for transforming the shopping center. To enable these uses, the city created a new zoning overlay district that allowed for outside cafes and seating, resulting in inviting and attractive restaurant environments.

In order to attract new businesses to utilize the shopping center, the city decided to relax its parking requirements in order to provide more surface area for retail and restaurants. Under the city’s generic parking requirements, art and entertainment uses would have required 390 new parking spaces, in addition to the existing spaces at the site required for previous retail use. Construction of the additional 390 parking spaces would have cost approximately \$1.9 million and would have also necessitated demolition of existing buildings, further increasing redevelopment costs (by approximately \$30,000) and reducing rental income. Reducing the parking requirements and allowing for shared parking reduced development costs enough to make the redevelopment financially feasible for the developer.⁵⁷ In order to accommodate for parking, the city decided to utilize existing parking spaces at a nearby community center and teamed up with offices in the area to allow for shared parking after business hours.

Since its redevelopment, the Shoppes at Wilton Manors sold for \$10.4 million in 2004.⁵⁸ Currently at 82 percent occupancy, its key tenants include Tasty Thai Cuisine, Mustards Bar and Grill, Corner Pocket Billiards, an optical shop, Java Boys café, a seller of swimwear, and a popular dance club. Other outcomes include increased occupancy and rental rates from \$2 million to \$28 million, 12 times its former rental income.⁵⁹ Lease rates in the area are growing as well, from \$14 per square foot in 2004 of leased space to \$20 in 2006.⁶⁰

The success of the Shoppes at Wilton Manors has ushered in Wilton Manors’ vision of a sustainable urban village. As part of its growth management strategy and in anticipation of redevelopment, Wilton Manors completed a major rewrite of its Comprehensive Plan and Unified Land Development Regulations to include regulations that promote New Urbanism and Smart Growth principles. The city recently contracted with developer New Urban Communities for Wilton Park, a 19,000-square-foot development encompassing 73 three-story townhouses, 72 lofts, a pool for city residents and ground-floor businesses facing Wilton Drive. New Urban has worked on other projects in Wilton Manors, including Belle Isle, a 60-unit development, which

replaced a trailer park and was recently approved for another mixed-used project that will include 58-townhouse units and 10,000 square feet of commercial space.⁶¹

Some of the key elements related to the success of the Wilton Manors revitalization effort include the following:

- The developer's and the city's willingness and commitment to work together. According to Redevco Executive Vice President, Debra Sinkle, the project was successful because of the public/private partnership between the city and Redevco. The city's flexibility with regard to zoning requirements and its commitment to the project created the confidence necessary for the investment of private dollars into the project.⁶²
- The city's flexibility in reducing parking requirements to support different redevelopment uses that would otherwise require more parking than the original use.
- Substantial cost savings resulting from parking reductions, making the redevelopment financially feasible.

The redevelopment of underutilized first or second generation shopping centers provides opportunities for creating new neighborhoods and community cores that can establish a local sense of place. As exemplified by the Shoppes at Wilton Manors, redevelopment through the use of reduced parking requirements spurred a revitalization of adjacent properties along Wilton Drive. In this scenario, tailoring minimum parking requirements to match development plans allowed for the transformation of this shopping center. While Montgomery County already institutes reduced parking requirements for developments near Metro stations, a similar approach could be applied to the Glenmont shopping center at the corner of Georgia Avenue and Randolph Road.⁶³ Given the proximity of Glenmont shopping center to Metro and bustling Wheaton, it is possible to revitalize this shopping area with retail, entertainment, and restaurants utilizing a zoning overlay and reduce parking requirement approach.

Case Study: Boulder, CO

While reducing excess parking supply is important in eliminating the waste of unused parking spaces, some communities are looking to directly reduce the demand for parking, by providing people with readily available alternatives to driving. Demand reduction programs include car sharing, subsidies for transit, transit improvements, pedestrian and bicycle facilities, and comprehensive vehicle trip reduction programs that may include telecommuting and/or flexible work schedules to reduce commuting. Faced with a shortage of parking, the city of Boulder in Colorado the city developed a program that combines restrictions on downtown parking with aggressive demand management. These initiatives have been introduced through a special district – the Central Area General Improvement District (CAGID), which was established in the 1970s. The Board of CAGID, which makes the final decisions on issues such as new parking construction, is comprised of the City Council. However, considerable power over decisions such as parking charges is held by the Downtown Management Commission (DMC), which is made up of local businesses and property owners, although its actions are subject to City Council review.⁶⁴ The DMC manages on and off-street parking, and collects parking revenues from garages, meters and in-lieu parking fees. These revenues are used to provide free universal transit passes, guaranteed home services, ridematching, bicycle parking and other benefits.

Boulder is most notable for its integrated approach that allows CAGID to invest in the optimum mix of transit, demand management and parking supply to improve downtown access. First, Boulder has no parking requirements for non-residential uses within the CAGID area.

Developers are allowed to build as much or as little parking as they choose, subject to design standards in the zoning code, and to manage it as they see fit. If they choose to build less parking, they can purchase permits for public lots and garages from the DMC for resale to their employees. Residential minimum parking requirements are set at one space per unit, although these have had little impacts since developers have tended to provide two spaces per unit given market demands. Outside of the CAGID area, Boulder has also experimented with lower, more flexible parking requirements in mixed-use districts. A single parking requirement for all non-residential uses allows the use to change freely. There are also low parking requirements for residential uses in many parts of the city.⁶⁵

Another innovative transportation demand element to Boulder's program is free bus pass program, Eco-Pass which is funded from parking revenues collected by the DMC. The Eco-Pass program has been the centerpiece of the alternative transportation mode in Boulder. The DMC provides free Eco Passes to all downtown employees at an annual cost of \$160,000, all paid by parking revenues. Approximately 42% of downtown employees use alternative modes of transportation to travel to work creating parking space equivalents (PSEs), thus freeing up parking spaces for visitors, clients and customers, and saving the parking district the costs of constructing and operating additional parking for employees.⁶⁶

In addition, the Boulder Neighborhood Parking Permit program (NPP), a citizen initiated program, places time-limit restrictions and permit requirements for on-street parking within a residential area, in order to manage parking and balance transportation demands while preserving the quality of life in Boulder. The NPP program was developed to meet the needs of multiple users - residents, visitors, commuters and businesses - within the zones. There are 8 NPP zones throughout the city of Boulder totaling 2,800 permit holders.⁶⁷

Another major strength of the City of Boulder parking system is the structured parking assets situated in strategic locations about the core of the city. For example, within two blocks of the Pearl Street Mall, a major retail in the center of downtown, there are four public parking garages offering a total of 1,653 parking spaces.⁶⁸ Moreover, Boulder is a national leader in the development of parking structures that are effectively integrated into the urban fabric of the community. For example, a recently constructed garage near the Pearl Street Mall exemplifies urban design by it being wrapped in street-level retail and second-floor offices on two sides. The garage has received several design awards from architectural, planning and parking institutes, including a Charter Award from the Congress for the New Urbanism. In addition, Boulder's zoning code also has specific design requirements for downtown parking, which must be wrapped in retail, restaurant or other pedestrian-oriented uses for a depth of 20-30 feet on the first floor. Parking must also be wrapped on the second floor, although this may be with any permitted use and the required depth is lower.⁶⁹

Much of Boulder's success is due to an active engagement between the city's parking program and organizations such as Downtown Boulder, Inc, the Downtown Boulder Business Improvement District, and the University of Colorado. These entities work together to implement Boulder's Transportation Demand Management and parking programs along side with community stakeholders and civic associations. Currently, the city is beginning to collaborate with businesses and residents in main downtown corridors to explore how Transportation Demand Management and a business-oriented Transportation Management Organization can integrate, promote and support the expected development, redevelopment, and transition of the area.⁷⁰

Conclusion

As Montgomery County continues to experience an increase in growth and development, a strain will be placed on existing transportation infrastructure, including the need for parking. These two case studies showcase some of the best management techniques available for parking and transportation demand. These jurisdictions' parking policies support vibrant, mixed-use walkable environments. At the same time, they have also reduced traffic impacts, furthered economic development objectives, and increased transit ridership. Montgomery County may wish to choose a mix of these strategies, particularly the use of reduced parking that was exemplified by the Wilton Manors example. However, Boulder provides a good example of how parking policy is used to help promote the growth of a mixed-use, successful center.

Background – Citizen Acceptance

No discussion of smart growth is complete without a discussion of the general stakeholders who live and adjust to its policies everyday: the public. Public perception, involvement and overall acceptance of city planning initiatives are the fundamental indicators of their success. Smart growth policies affect every aspect of community life from the overall physical infrastructure of an area to housing prices and the location of public amenities. However, the institution of smart growth often centers on principles like increased density, which is controversial and unappealing to the average citizen. The question for many regions, including Montgomery County, persists: what can be done to make the public more accepting of smart growth?

Citizens are ultimately more accepting of smart growth if they are invited to take part in the planning process and if planned initiatives include benefits directly instituted for the public. The following section describes citizen involvement in the smart growth process and what amenities can be added to smart growth initiatives to help garner citizen support. First, it will discuss the general principles of public participation and amenities. Second, it will delve into two case studies, from Arlington, Virginia, and Sacramento California. These examples demonstrate the importance of citizen engagement and acceptance in the smart growth planning process and exemplify compromises that allowed citizens to be more comfortable with proposed changes. Lastly, this section will suggest a few interactive ways in which to get citizens involved. Ultimately, it is concluded that public buy-in to smart growth does not come in the form of a direct cash transfers, but an open and transparent process, where the public themselves can see and help choose the desired outcomes.

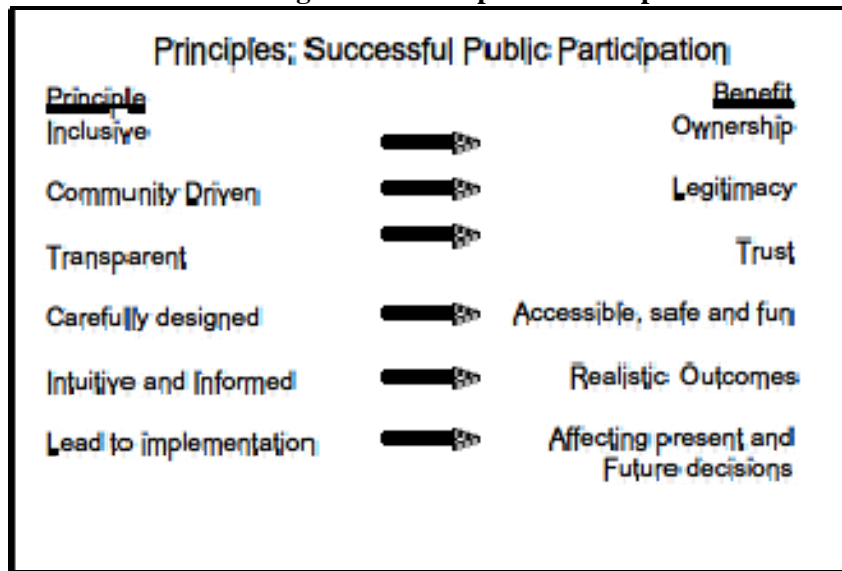
Key Findings:

- Involve the community in visioning and planning early and often
- Include amenities catered towards community to make growth tolerable
- Allow for maintenance of communities and neighborhoods; ensure quality of design
- Institute a public education campaign to inform citizens (including non-represented citizens) of the efficiencies associated with growth

Public Participation

First and foremost, citizen acceptance of smart growth is directly linked to their participation in the planning process. Ken Snyder, Director of PlaceMatters, a subsidiary of the Orton Family Foundation based in Vermont, outlined the principles of successful public participation in his presentation on Regional Visioning and the Public Process at the 5th Annual New Partners for Smart Growth held in Denver in 2006. As shown in Figure 7, each principle in the participation process is associated with a direct benefit to the public. As the principles indicate, consistent and open dialogue between the public and city planners is paramount. The public is more likely to buy-in and trust officials if they are made aware of upcoming changes with a transparent and candid planning process. Meanwhile, citizens not only want to know what is going on, they also want to have a say. Without the input and inclusion of citizens, considerable growth decisions can lack legitimacy and sustainability that could potentially be unrealistic or worse, unpopular. Allowing citizen opinions to be heard and considered promotes the feeling of trust and ownership. Substantial changes to the status quo become less daunting when the public has a chance to make suggestions and see for themselves the potential to better their area in the long run.

Figure 7: Participation Principles



Source: Ken Snyder

Public acceptance and participation is more than a body count at a planning meeting. As Eric Kelly states in his book on community planning, “the best plans are those that represent the collective will of the community.”⁷¹ In order to garner fair-minded public legitimacy, community involvement should be both meaningful and representative. The contingent of those who participate should have a variety of backgrounds and represent all members of a community, from families with children and singles to citizens of different ethnicities and wealth. People of all ages should be included, especially the elderly. Obviously not every citizen has the time or desire to participate, however planners should make a concerted effort to understand the role and opinion of different groups of stakeholders throughout the process.

Subsequently, representative participation is meaningful when participation is in-depth and well rounded. It is vital to identify and understand the issues that are important to the public and use them, along with the ideas of officials and planners, to form the goals of how the metropolitan area will transform. This process is most helpful when included through the evolution of the planning process. Including the citizens of the community, from start to finish, leads to more well-rounded and realistic outcome.

Public Amenities and Neighborhoods

It is important to ensure that growth initiatives have the public in mind. The quality of the public realm and basic amenities are important in defining places and neighborhoods.³ Public spaces and amenities encourage community activities, gatherings and people watching. For instance, the inclusion of pocket parks, village greens, bike paths, walkways, transit plazas and simple structures like public benches make an area more desirable and pedestrian friendly. Meanwhile creative landscaping and the addition of public art add to the pleasing visual aesthetics of an area and foster a sense of community. Trees and landscaping can also create a useful buffer from traffic while at the same time providing shade and comfortable gathering

³ Basic public amenities here refer to general and simpler items like park benches and public art, as opposed to schools.

places. Giving busy city streets a neighborhood feel helps link less dense areas with urban areas. Public art can be used to improve and enhance the character of bus stops and metro-rail stations. Creating a place where people want to live, work and play is ideal. Preserving neighborhoods and communities is vital to this in that it fosters awareness and safeguarding of identity, history and culture of an area.

Public Relations Campaign

Due to the hectic lives of most community members, which include family responsibilities, jobs, and recreational activities, many citizens do not have the opportunity to participate. Taking proactive steps to inform and educate citizens will give information to those who can not help and may also invite action from others. A good way to reach people is through the various forms of media perused by citizens ever day. The use of marketing techniques in newspaper advertisements and/or advertisements on the radio or television can help educate citizens about the process of smart growth and its associated efficiencies. One inventive education tool is the electronic kiosk which can be strategically placed at regularly frequented community locations. Kiosks can be used to provide information to residents and promote feedback.⁷²

Electronic Town Meeting

Large in-person gatherings of the public, officials and planners are often difficult to organize and plan. On top of this, public hearings and regular town halls are often speaker focused where citizens have little input but to ask questions. Electronic Town Meetings (ETMs), like the model created by AmericaSpeaks, focus more on engaging citizens in the deliberative process through information and communications technologies.⁷³ Through the use of networked computers, electronic keypads and large video screens, thousands of people are brought together to discuss important topics. This type of technology was utilized in 2003 in Washington, DC at a 21st Century Town Meeting known as Citizen Summit II, part of former Mayor Williams' Neighborhood Action Campaign. An evaluation of the process found that in fact ETMs enhance the deliberative democracy in that it cultivates broadly inclusive and autonomous dialogue. Citizens felt an egalitarian and inclusive environment free from coercion.

Case Study: Ballston-Rosslyn Corridor—Arlington, Virginia

The Ballston-Rosslyn Corridor in Arlington, Virginia, as discussed earlier, is an impressive example of a smart growth initiative that among many other exercises practiced fair decision-making and promoted stakeholder participation. Over three decades, Arlington created a “thriving corridor” melded with “busy sidewalks.”⁷⁴ At each of the five metro stations within the B-R Corridor, planners used dense, mixed-use infill development. The design created an “urban village” feel while at the same time preserved older neighborhoods and communities. Due to citizen participation and compromises, the area is now seen as very “smart” smart growth.

At first, thirty years ago, Arlington's proposed growth plans received much criticism and resistance from local residents. However, after exhaustive meetings and compromises, county officials, stakeholders and city planners worked with the community to draft plans everyone could support. It all started when County officials talked Metro into redirecting rail lines up Wilson Boulevard, instead of the original route along I-66. Working with citizens, officials instituted a design plan referred to as the “bulls-eye” plan that placed high-density development

at each of the five metro stops which then dispersed into nearby neighborhoods.⁷⁵ Planners compromised on a height cap for buildings near the metro to help keep sunlight in and the big city feel out. To maintain support overtime and ease fears of density, the county instituted parking limits and traffic-calming strategies on nearby streets.⁷⁶

Today, Arlington County, along with planners and residents are very pleased with the growth and development outcomes of the B-R Corridor. Many believe much of the success hinged on the support of the local residents who played a large role in the final plan. As the EPA relates, because Arlington residents were involved in developing plans they were “more likely to support density at the stations and the amenities it can provide for the neighborhood.”⁷⁷ Julie Mangis, the current Executive Director of the Ballston-Virginia Square Partnership, was a citizen activist and member of the Growth Patterns Committee of the Arlington County Planning Commission during the initial planning phases of the B-R Corridor thirty years ago. She recounts that most people were supportive of the increase in density because of the related economic revitalization and means of supporting the costs of the metro. Mangis said it was the concept of the focused “bulls-eye” plan that finally won citizen support. She also notes that the public support was strengthened by community amenities like parks, walkable areas and public art. “Quality of life issues are what are important,” states Mangis, in that if the community “can be convinced that Smart Growth enhances their quality of life, they are more likely to buy-in.”⁷⁸ Another plus in the Corridor has been in the form of relatively low taxes that can be contributed to the revenue of commercial development. To those who criticize the high buildings, density or lack of parking, Mangis simply reminds them that the corridor is no longer a suburb community.

Throughout the process, citizen groups were “instrumental in the stewardship” of the Corridor development.⁷⁹ Groups, like Clarendon Alliance and Rosslyn Renaissance and Mangis’ Ballston-Virginia Square Partnership, fought and continued to fight hard for the public interest. Today, these groups remain permanent fixtures in the area, promoting cultural and recreational opportunities, designing streetscapes and parks, supporting local projects and improving community life.⁸⁰

Case Study: Sacramento Region Blueprint Project—Sacramento, California

In Sacramento California, officials were looking to reform regional transportation and land use patterns. In order to engage and educate citizens from all over the region, the Sacramento Area Council of Governments (SACOG) initiated a two-year campaign known as the Sacramento Region Blueprint: Transportation/Land Use Study. Utilizing workshops, regional conferences, web-based dialogue and surveys, more than 5,000 community members, elected officials, and business leaders were able to shape the future of the region.⁸¹ In 2003, the Blueprint was given the Governor’s Award for Environmental and Economic Leadership.

Engaging the community was a top priority of the initiative. SACOG partnered with a local non-profit, Valley Vision, to “develop a broad community outreach strategy that would stimulate an inclusive discussion on the region’s growth.”⁸² The result: over 1,500 citizens participated in 38 neighborhood workshops held in each jurisdiction of the region.⁸³ Within the workshops citizens and officials worked with maps and stickers to compare base scenarios with various land use changes in their communities. Meanwhile, educating the public and was also a top priority. In order to show the efficiencies related to certain smart growth principles, SACOG launched a public education program. The purpose was to highlight the ways in which smart growth techniques enhance public spaces and create more housing and transportation choices. In addition, more than 220 special presentations were given to engage groups generally

underrepresented. Partnering with local outreach groups and translators, exercises were held in Spanish and more than 50,000 multi-lingual flyers were distributed by staff.

In the end, the results from the neighborhood workshop were compiled and presented at a regional workshop in April of 2004. Over 1,300 participants voted for future growth alternatives that showed varying environmental and economic outcomes. Thanks to Sacramento's vision and focus on education and engagement, citizens played an extremely important role in the final decision.

Conclusion

Ultimately, public acceptance and involvement are directly linked to the success of smart growth initiatives. Honest and open discussions with citizens about growth management techniques and their associated positives and negatives coupled with the involvement of citizens in visioning and planning is paramount. Only then can smart growth initiatives be fully recognized and accepted. In the Ballston-Rosslyn Corridor, the compromised creation of the "bulls-eye" plan allowed for important density and infill, but on a scale that was comfortable to the public and allowed the protection of neighborhoods. In Sacramento, simulation workshops and a direct education campaign allowed an impressive exchange of ideas and explanations between planners, city officials, stakeholders and the public.

The Future of Smart Growth in Montgomery County

These exemplary case studies showcase a wide range of innovative strategies for managing growth. Each example provides a unique perspective on an area of smart growth that is applicable to Montgomery County's growth initiatives. When considering the application of these strategies, the GW Capstone Research team has identified several other themes for the Montgomery County Planning Board to take into consideration. The research team found that these themes appeared to resonate throughout each of these best practice scenarios.

First, smart growth policies should be inclusive. Each of these case studies presents a different aspect of smart growth, from stormwater management to affordable housing, yet they cannot be considered only individually. For example, parking policies can impact stormwater run-off. The revitalization of existing communities can impact housing prices. Citizen acceptance is a necessity in any smart growth strategy. To that end, smart growth strategies, including those presented in this report should be considered holistically.

Second, smart growth policies cannot be achieved without keeping in mind their sustainability. Throughout our discussions with Planning Board staff, it was evident that sustainability is a critical part of Montgomery County's growth initiatives. As the Planning Board already recognizes, sustainability includes a design that considers the impact development can have on the environment, economy, and social equity. In each of these case studies, it was apparent that sustainability was a chief goal and that their strategies were part of a larger, sustainable growth initiative. For instance, the parking strategies that were implemented in Wilton Manors, FL have led to a sustainable growth pattern in that community. The level of civic participation in Arlington, VA has allowed for sustainable growth plans in Northern Virginia to prosper.

Ultimately, public acceptance and involvement are directly linked to the success of smart growth initiatives. As a leader in sustainable smart growth policy, Montgomery County recognizes this and already engages citizens and stakeholders in the growth planning process. However, our discussions with Planning Board staff revealed that citizen acceptance, rather than just involvement, was a chief concern. Our case studies found that honest and open discussions with citizens about growth management techniques and their associated positive and negative impacts on the community facilitate citizen acceptance.

Our research revealed that Montgomery County is a leading example of smart growth. While the County many successes in implementing smart growth principles, projected population and employment growth present new challenges to managing growth in the community. As the County revises its growth policies, we recommend the incorporation of the many strategies illustrated by these case studies. While Montgomery County already implements a number of smart growth principles, the inclusion of new tactics in the revised growth policy will aid the County in addressing future growth challenges.

APPENDIX

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