

Design Excellence: Tools to Improve Growth's Contribution to Our Quality of Life



Bethesda

INTRODUCTION

The following discussion of design excellence is intended to address methods to achieve the objectives identified in the other papers included in the Growth Policy report. Design is not an end unto itself; it is the means by which we use the forces of growth and change to achieve objectives that we mutually set. As an example, if the report on sustainability identifies a set of objectives for the preservation of the environment, design excellence provides the tools to achieve those objectives in the best possible manner.

Planning in Montgomery County in the next century will require significant attention to design quality in community building. Directing development to more dense Metro station areas and the I-270 Corridor and away from rural areas is a hallmark of the General Plan ...on Wedges and Corridors for Montgomery County. The County has a limited amount of available land for development. Preserving the Ag Reserve and the character of the existing communities continues to be a challenge. A significant portion of the growth in the future will occur through redevelopment of currently developed properties including the older retail centers. Another challenge would be to preserve and enhance the character of the major transportation routes. From an economic point of view, design excellence should also be part of maintaining the County's competitive edge in attracting quality businesses in the 21st century global market place. All of these are primarily design issues and require attention to design in community building for success as part of a comprehensive growth policy.

RECOMMENDATIONS

This report provides both short-term and long-term recommendations for achieving design excellence through sustainability goals, enhancing the public realm, improving our public infrastructure, and encouraging non-motorized mobility mainly by improving our planning and regulatory tools such as master planning, regulatory planning, public facilities and the CIP, and the promotion of good design and staff training.

Short-term Recommendations

Growth Policy-related recommendation

The language in the growth policy should include emphasis on design excellence when reviewing and measuring the impact of a development on the pedestrian facilities on the adjoining area. Any traffic mitigation measures should take into account not only the objective traffic standards but also give priority to the pedestrian environment with a focus on design excellence and creating safe, comfortable and attractive public realm for all users, especially when it comes to pedestrian and transit access to schools, libraries, recreations centers and other neighborhood facilities.

[Language to this effect has been added to the draft growth policy resolution.]

CIP and Design Excellence

The County CIP process should be reviewed to identify opportunities to foster a greater focus on design excellence and better coordination among different agencies involved in the design and development of public infrastructure – roads, schools, libraries, recreation centers and other public facilities. Currently, the design of these facilities, and the impact of a proposed design on the adjoining community and the environment, is reviewed as part of the final mandatory referral review by the Planning Board. Due to the iterative nature of facility implementation, in most cases decisions about facility location and scope are made by the Planning Board and County Council prior to mandatory referral. When resources are available to pay attention to design details, it is too late to make changes without causing delays and adding extra costs. Early design coordination between Park and Planning and other agencies, starting by inserting design goals into the purpose and need (along with items such as environmental protection and improved safety and mobility) for the project should help reduce conflicts and create better design while saving time and money by eliminating successive redesigns and changes necessitated by the last minute reviews.

The County Council could direct the Planning Board and the County Executive, to convene a design summit among different agencies involved in the design and development of public facilities to develop a consensus and commitment to design excellence as a core value in all public projects, and focus on how to improve design of public facilities through various means but more specifically through better coordination among agencies. *[Language to this effect has been added to the draft growth policy resolution.]*

An outcome of this design summit could be the designation of one or more upcoming CIP projects as a demonstration project to help create a CIP process that fosters design excellence.

Mid-term Recommendations

Zoning Ordinance Reform

Emphasize design excellence and provide more focused and clearly articulated standards for better design in the new zones and the proposed rewrite of the Zoning Ordinance. Zoning Ordinance reform is already one of the work program items for the Planning Department. The Department intends to pursue design excellence as one of the major goals of the rewrite of the Zoning Ordinance, including development of new zones.

Design Protocol for the Planning Department Staff

Create a design protocol for the staff and the applicants that would further elaborate on the design controls in the Zoning Ordinance and cover different situations as well as provide a set of best urban design practices. Currently, the zones in the Zoning Ordinance vary in the specificity of design controls, and the interpretation and application of these controls varies from project to project depending upon the intent of the applicant and the ability of the staff to negotiate certain level of design excellence through the review process (for example, are sidewalks part of the public use space?). This is partly due to the fact that the zoning text has to cover many different site conditions through the same language for all. Even when new zones are developed with more detailed design guidance, the issue of interpretation and the clarity in application of design controls remains. A design protocol for the staff and the applicants would help clarify the intent of the regulations and how to apply the controls in different site conditions. It would serve the same function as the current recreation guidelines used by the Site Plan review staff. But it would be different from recreation guidelines or typical design guidelines in that it would not specify a certain type of open space for each location, or level of fenestration on each façade. Rather, it would provide best practices for each type of open space, building type, or walkability factors. For example, it may provide the most desirable proportions of an urban open space (between 1:2 and 1:3), or the appropriate building height to street width ratios. It may also describe best example of urban design from around the country as a reference source and serve as a staff training tool.

Urban Design Compendiums to Master Plans for Mixed-use Centers

Prepare design guidelines for high-density areas targeted for compact, mixed-use developments. New master plans are providing more design guidance than the older plans. However, because master plans are long-term documents for larger areas they may not be the appropriate tools to provide the more detailed design guidance that is needed on a block-by-block basis, the kind that is provided in the new form-based codes. Also, the context may change as new developments occur in an area requiring modifications and adjustments to already approved design concepts and guidelines over time, something that is not easily done through master plan amendments.

We recommend that the Planning Department prepare design guidelines for high density areas targeted for compact, mixed-use developments. These design guidelines — urban design compendiums — would provide design guidance more detailed than the master plans for CBDs, town centers, metro station areas, and other mixed-use centers. They would be reviewed by the Planning Board and the County Council along with the master plans but would not be part of the approved master plans. The Planning Board would have the authority to make changes and adjustments to these documents as needed without the need for master plan amendments.

Sustainability

Take a leadership role in reviewing the LEED for neighborhood pilot program to develop standards in the design of green communities. LEED-ND (Leadership in Energy and Environmental Design for Neighborhood Development) standards have been proposed as part of a pilot program for developing standards for planning and development of more environmentally sensitive and sustainable communities. Planning for sustainability is best done early in the design of communities. Montgomery County could participate in this voluntary program and help develop new standards for sustainable neighborhood planning.

Quality of the Public Realm

Focus design excellence on the quality of the public realm. The quality of the public realm—streets, parks and open spaces, and the layout of blocks and buildings—forms the basis of our perception of a place. Although the quality of the private realm is important in that it impacts the health and welfare of its inhabitants, the use of energy, building materials and other resources, the public realm is the context in which the private realm exists. Achieving design excellence in the public realm would significantly improve the quality of all man-made environment in Montgomery County. The following three areas of the public realm should be the focus of design excellence:

- **Streets and Highways: emphasize design excellence in the proposed revisions to the County’s Road Code.** The design of streets (the area of the public right-of-way) is a major determinant of the function and character of a place. The revisions to the County’s road code currently underway represent a great opportunity to emphasize better design for walkability of our streets.
- **Public Spaces: enhance the design of public use spaces, green areas, and active and passive recreation areas required by the Zoning Ordinance.** The design of public spaces and space between buildings has a significant impact on the character of any development. Open areas should be the focus of design excellence in the development review processes.
- **Blocks and Buildings: enhance the findings for compatibility and provision of adequate, safe and efficient layout of buildings and open space specified in the Zoning Ordinance.** The layout of blocks and buildings provides the form and structure for the space between buildings. In most cases the experience of the public realm is impacted more by the spaces between the buildings than the buildings and plazas alone.

Pedestrian Access

Improve walkability in neighborhoods through pedestrian connections and enhancing the pedestrian experience. As the development pattern gets more compact in the future, especially in the redevelopment of shopping centers and mixed-use developments near high-density residential areas, the pedestrian accessibility and the quality of pedestrian experience will become more important. Improving walkability in our communities provides the opportunity to significantly benefit the overall health of the residents by encouraging alternatives to automobile travel.

DISCUSSION

Design excellence in the built environment is the tool to create high quality (safe, functional, attractive, and sustainable) places for living, work, leisure and transportation. A program of needs and constraints guides the design process, and the quality of the end product depends upon the shared vision and goals of all participants but especially the decision makers. Today, the overarching vision of sustainability has emerged as a significant guiding principle and objective for design excellence in the built environment. Before discussing how to achieve design excellence, concrete terms should define the goals of design excellence in Montgomery County under the umbrella of sustainable design, and in ways that are understood by all stakeholders and participants in the development process. Sustainability should be defined at different scales (countywide, neighborhood, streets, block, buildings, and open spaces); and the most sustainable development pattern defined at each scale. A well-defined and clear set of objectives should set priorities and resolve conflicts among competing and conflicting goals.

Achieving design excellence is a complex and long-term undertaking that involves numerous stakeholders in both the public and the private sectors. This report focuses on how to achieve design excellence mainly through the public review process and better design of the public infrastructure. We propose that the following four principles guide the design excellence initiative in Montgomery County:

- Design excellence is a core value in the process of community building in Montgomery County
- Sustainability is a guiding principle for land use planning and design
- The public realm is an important concern for design excellence
- Pedestrian access should be a major focus of community development

Importance of Design

Design Excellence and the Growth Policy

This growth policy document proposes a new way to look at growth management. It has been developed with the belief that growth policy should not be about the adequacy of infrastructure alone. It should also address the quality of that infrastructure, and reflect the fact that good design is the tool to achieve all the other goals of the growth policy

including sustainability and better quality of life. More than that, it is about expanding our focus beyond the characteristics of things – roads, schools, etc – to more broadly include the experience of the people going about their daily lives. In some ways, Montgomery County is a pioneer in this approach since we have not found many other jurisdictions that have taken such a comprehensive approach to growth management. Therefore, some of the ideas presented here may need to be modified and refined as we implement this broader view of growth management. Even though it adds more complexity to the growth policy, we still believe that a comprehensive approach is the right way to go about managing growth.

Quality of Life

Good design is a growth management issue because growth is fundamentally a quality of life issue. Growth is never neutral. It is going to have an effect on the community's quality of life—positive or negative. Growth management is avoiding, minimizing, and mitigating the negative impacts and maximizing the positive aspects of growth. Good design is one of the tools to help manage the desired growth and improve the quality of life of the community. We want good growth, not bad growth, and design quality is more often the only difference between the two.

Economic edge

From a purely economic point of view good design is extremely important in terms of what it can do to help increase the County's competitive edge in attracting quality businesses and workers in the twenty-first century global market. Good design is one of the most cost effective ways to achieve that edge. Now that Montgomery County is moving from the green field development phase to a redevelopment phase, the design and character of that development is going to be even more important than it has been in the past. Research has shown that a better-educated professional segment of the population is attracted to places that have the energy and vibrancy associated with well-designed places for living, working and leisure activities. The new generation of workers is looking for more diverse and attractive places to live and work. And this group can move to other places that offer such qualities far more easily than their parents' generation did.

Walkability

In the past the County's approach to growth management has generally been concerned primarily with the quantity and timing of infrastructure delivery needed to support certain levels of growth and redevelopment. The design quality of the growth and especially the quality of the needed infrastructure was not evaluated as part of biennial growth policy discussions. We believe that we need to look at growth management in a more comprehensive manner and analyze not just one factor such as traffic congestion or school crowding but also the overall quality of life. While pedestrian amenities are considered in detail during mandatory referral reviews and subdivision cases, pedestrian consideration in growth management has historically been performed by policy-level tradeoffs among traffic congestion levels, pedestrian crossing times, and the equivalency between vehicle trips and non-auto amenities. In addition to providing an assessment of the adequacy of the infrastructure, growth policy should more proactively evaluate how walkable and safe our communities are for pedestrians and

other non-motorized transportation, and how more walkable places can reduce our reliance on single-occupancy vehicles and increase pedestrian accessibility to schools and other neighborhood facilities.

Well-designed transit

Transit must be well designed to compete with the single occupancy car travel. It must be well designed in every way possible including time advantage over private auto travel. The *relative transit mobility* index introduced in this growth policy is a step in the right direction to addressing this need. Productive ways to address (not eliminate) congestion include giving people more choices through better transit and land use coordination — by making land use and transit work with each other, not against each other.

Cost and benefit

All development has certain costs and benefits: economic, cultural, social, and environmental. These costs and benefits can be: intentional and unintentional; tangible and intangible; explicit and implicit; short-term and long-term; avoidable and unavoidable. Bad design has additional costs. It is very expensive in the long-term, more so for the community than the developer since a larger share of these costs is borne by the community. For example, an owner can get rid of a building that doesn't have economic value anymore (sell at a loss, or even abandon it). But the community doesn't have that option, and suffers the negative consequences (loss of value for adjoining properties, unsafe conditions) for a much longer period. Even the short-term costs to the developer are ultimately passed on to the community in higher rents, prices of goods and services and other ways. That is why we should be more concerned about the costs of bad design.

The other side of that coin is the benefits of good design. Good design can bring some additional benefits to both the developers and the community. For the developer the benefits might be more short-term and purely economic. For the community a good project can be a benefit to the surrounding properties (economic), a source of affordable housing (social) and may have a great open space or amenity (cultural) that would be there for a very long time.

The Growth Policy is an appropriate tool

Although our master plans and the Zoning Ordinance are forward looking and based on the up-to-date planning and design thinking when written, advances and new techniques occur at a more rapid pace. With a shelf life of 15-20 years, the master plan timing is not flexible enough to respond to development demands and advances in current sustainability thinking. Growth policy is a more flexible tool than some other controls, is reviewed more often, and can be used to supplement our master planning and zoning tools. Also, as development gets more complex, we will need all the tools available to us in order to manage growth in the best possible way. Growth policy is one of the tools and we should take full advantage of its potential uses in creating better communities.

TOOLS AND PROCESSES

Our efforts to manage growth and achieve design excellence must occur within the existing framework of various laws, policies and past practices. This framework consists of tools and processes each of which is appropriate for certain purposes, and is applied at various geographic scales and stages of the development process. Some of them are more general in nature while others are more detailed oriented. The following discussion outlines the tools and processes available to us for managing land use and development in Montgomery County.

Tools: Master Plans, Zoning Ordinance, Road Code, and Design Guidelines

Master Plans

At the countywide and regional level, the County's master plan, *the General Plan ... on Wedges and Corridors*, defines the land use and design vision of the county. It provides a very broad-brush macro-level vision and land use guidance. This vision is further refined in forty-four area master plans and sector plans. These master plans provide the next in-depth level of land use and planning guidance. They vary in terms of their style and degree of design guidance - some are very detailed while others are more policy and land use oriented. CBDs, Metro stations, and certain areas with special issues have sector plans, which cover a smaller geographic area and therefore provide the next more detailed level of planning framework.

Zoning Ordinance

After the area wide recommendations on land use are set in the master and sector plans, a significant portion of the implementation of the recommendations occurs through the Zoning Ordinance. The design guidance in the Zoning Ordinance is more detailed—on the site plan and building level even though it varies depending upon when each zone was created and what the prevailing best practice on designing development controls at the time was. Today, new techniques such as form-based codes or smart codes include higher design emphasis than the typical traditional Euclidean zones.

Road Code

The County's road code specifies the width, type and character of all public and private streets, including sidewalk areas. It is the major regulatory tool that deals with a significant portion of the public realm—the streets and sidewalks. To a large extent it determines the character of a place and how walkable and pedestrian-oriented it is going to be. The County is currently in the process of revising its road code. The level and the degree of emphasis on design guidance in the final road code will have a major impact on the quality of the public realm in future developments.

Design guidelines

Design Guidelines can provide the most detailed level of design guidance for a limited area. They have been used in Montgomery County to provide detailed design guidance generally not possible, and sometimes not desirable, through master or sector plans, or even the Zoning Ordinance. They could be used to supplement master and sector plans in providing design guidance, which may be too detailed for master plans and

may be more flexible than allowed by the constrained legal structure of the Zoning Ordinance. Planning Board could approve guidelines for staff use to provide detailed guidance for streetscape, open spaces, recreational needs, compatibility of buildings, and environmental protection.

Processes: Development Plans, Preliminary Plans, Site Plans, and Mandatory Referral

In Montgomery County, the regulatory tools of Master Plans, Zoning Ordinance, the Road Code, and design guidelines are applied through the regulatory processes of project plans, development plans, preliminary plans, and site plans for private developments. Mandatory referral is the review process used only for public projects and can use the guidance provided in the master plans, the Zoning Ordinance, or the design guidelines. Design excellence for projects going through any of these processes can be achieved by including more focused design guidance in the findings that any project must make before the Planning Board or the Council can approve it. The existing findings required for approval could be expanded to emphasize design excellence. These findings could be tailored to the specific needs of an area starting with two broad geographic categories: inside the Ag Reserve; and outside the Ag reserve.

Inside the Ag Reserve

The following considerations could augment the goal of preserving agriculture in the Ag Reserve:

- Is the proposed use consistent with the intent of preserving agriculture?
- Are the proposed uses and structures clustered to save agricultural land?
- Does the proposal preserve rural character of the area by preserving view sheds and unique vistas, rustic roads, historic resources and their settings, and the setting and character of small towns?

Outside the Ag Reserve

The areas of high density such as CBDs, Metro stations areas, mixed-use town centers, and other commercial areas should be the focus of design excellence outside the Ag Reserve. For projects going through any of the regulatory processes (project plans, preliminary plans, site plans, or mandatory referral) existing findings should be augmented to include a greater emphasis on design excellence. These findings could focus on three major areas:

- Streets and highways (coordinate with the revised Road Code with standards for urban, suburban, rural and rustic roads):
- Public spaces (local parks and open spaces, public use spaces and amenities, spaces between structures); and
- Blocks and buildings

ATTRIBUTES OF GOOD DESIGN

The required findings in the project plans, preliminary plans, site plans and mandatory referral could be refined based on the following considerations, or attributes of design excellence. Although design excellence can mean many different things to different people, there are attributes of good design that research has consistently shown to be associated with good design in community building. These attributes generally fall in the following broad categories: economic strength; accessibility; affordability; healthy environment; diversity; safety; and urban design. The staff recommends the following six attributes as the most appropriate considerations for achieving design excellence through regulatory processes in Montgomery County.

1. **Safety:** Crime Prevention Through Environmental Design (CPTED) type review of streets and highways including sidewalks, trails, pedestrian bridges and other pedestrian facilities, individual building sites, and open spaces.
2. **Walkability** - Interconnected street network with adequate and convenient sidewalks to public facilities, and the surrounding neighborhoods.
3. **Identity/character** - Unique design features for various types of streets, buildings and open spaces that give a special character to a place. Buildings and open spaces should have local character and be pleasing to see, feel, and be in. Major civic buildings should have distinctive architecture.
4. **Sustainability** - The design of our buildings, public spaces, and infrastructure should be guided by the best environmental stewardship principles including LEED standards for neighborhood planning, imperviousness caps, forest conservation, street tree standards, and best practices for stormwater management in high-density areas.
5. **Durability** - Our built environment must be durable and adoptable through better design with quality materials and workmanship, especially when it comes to the public realm.
6. **Context Sensitivity** - street design appropriate to its context (rural, rustic, urban, suburban), relationship of buildings and open spaces to their context, setback from adjoining uses and other considerations. As the development becomes denser in the future, context will become more significant since the potential conflicts between different uses and building forms may be more intense and would require better design skills on the part of the designers. A deeper understanding of the context helps identify when it is appropriate to blend in with the surroundings (AFI in Silver Spring) and when it may be appropriate to stand out (the Discovery Headquarters in Silver Spring).

DESIGN EXCELLENCE IN PLANNING FOR PUBLIC FACILITIES

Design excellence can also be achieved by improving the County's infrastructure planning and development process, and the Capital Improvement Program (CIP). This can be done by employing high quality designers, through competitions for major civic

projects, adopting stricter design standards for County facilities, and by including design guidance in the mandatory referral process. Another possibility would be to designate one project in each of the following areas in the County's CIP as a demonstration project with the idea of using this exercise to develop a rigorous design excellence program for public projects:

- Office building (Park and Planning headquarter building)
- Urban open space
- Library, recreation center or another community facility
- Road project
- Public parking garage
- Renovation of a county facility

PROMOTION AND TRAINING

A design excellence initiative would benefit from a promotional and training program to raise awareness of good design for developers, elected officials, professional staff, and the community. It could include the following items:

- Annual design awards program (results of project plans, preliminary plans and site plans)
- Staff training on how to analyze a project from a public interest and regulatory perspective.
- Develop three dimensional design tools and standards for use in regulatory and master planning.
- Study existing projects and learn what works, what doesn't. Analyze built spaces, buildings and open spaces. Create an electronic library of good design in the County and elsewhere.

APPENDIX A: HOW TO MEASURE DESIGN EXCELLENCE

Measuring design quality is somewhat like measuring a community's quality of life. Except for some quantitative indicators, (economic health, affordable housing, average travel times, etc.) the qualitative measures for the design quality of a place, that give a place its local flavor, are specific to each community and are hard to distill and not widely available in the literature. The hard part in developing good design indicators is that it requires that we first define what we are trying to achieve, and what the desired quality of that end product is. Walkability, for example can be measured by the linear feet of sidewalk in a community, but measuring walkability should also assess whether sidewalks are lined with retail, building entrances, and open spaces to make walking a safer and more interesting experience.

The following is a list of design measures commonly used to evaluate some aspects of the design quality of the built environment. These and other indicators should be considered as Montgomery County develops its own measures of design excellence.

Measures of Design Excellence

- 1. Qualitative indicators that can be evaluated:**
 - a. Quality of life indicators
 - b. Polling and sampling data
 - c. Public space use
 - d. Diversity of architects/landscape architects
 - e. Diversity of styles and projects
 - f. Recognition and awards by professional organizations

- 2. Quantitative indicators that can be evaluated:**
 - a. Quality of life indicators
 - b. Walkability indicators
 - c. Health statistics
 - d. Design review timelines
 - e. Travel times
 - f. Public transportation use
 - g. Public parks use
 - h. Standard economic indicators
 - i. Diversity statistics
 - j. Housing market statistics
 - k. Pollution measurements
 - l. Environmental measurements
 - m. Public art projects

APPENDIX B: IMPEDIMENTS TO GOOD DESIGN

Bad design does not just happen; it requires a lot of work. It is the result of a series of bad decisions made during a complex process by different participants at various times. These decisions are made not necessarily in bad faith, but they are certainly misguided and controlled by conflicting priorities and requirements of the various parties involved. Since nobody disagrees with the general notion that all developments should be well designed, the fact that there is so much bad design indicates that there must be some impediments to good design in the typical development process. The following are some of the factors that may hinder achieving the best possible design of a development.

1. **Lack of commitment to design excellence.** This impediment exists both in the public and the private sectors. It probably is rooted in the lack of awareness of the costs of bad design and the benefits of good design, especially when some upfront work on design can save significant money and time and create both short and the long-term benefits. On the private side it prevents developers from hiring good designers. On the public side it shows up in public land use policy and CIP process, which sometimes favors initial cost over long-term value.
2. **Upfront Costs.** Creating well-designed buildings, open spaces and public facilities requires higher upfront costs in terms of time, money and resources. In the design phase, the extra cost may come from higher consulting fees from better designers, larger multi-disciplinary design team, and more time needed to study and evaluate various options including new materials and building techniques. In the construction phase, higher cost may be due to better and more expensive materials, shortage of skilled labor for specialized or new construction techniques, and extra time and cost added by a more complex construction process such as saving adjoining trees or wetlands during construction.
3. **Lack of knowledge and design skills.** Designers and those reviewing and approving their projects may not have the knowledge or skills to raise questions that would lead to exploration of better design alternatives.
4. **Lack of a comprehensive design-oriented review process.** The current public review process often does not consider overall design questions and therefore does not require that better design alternatives be explored and evaluated.
5. **Lack of consensus or a shared vision.** The participants and decision makers come to the table with their own vision of what the appropriate form of development is, which creates conflicts in the development process. Most storeowners, for example, want parking right in front of their stores, and for stores to be visible from the highway. The community, on the other hand, may prefer stores more integrated into the community and oriented to pedestrians.

6. **Conflicting priorities of different stakeholders.** A developer may define the problem in terms of maximizing units and profits, while the community planner defines the problem as compatibility and environmental protection. Similarly, the developer's priority may be to deliver the project quickly and cheaply to reduce carrying costs and to capture the market before the demand changes. Achieving better design, however, may require more time to explore other design options.

7. **Regulatory controls and guidelines do not provide adequate checks when short-term market conditions prevail.**
Development based on market economics alone can lead to disposable or short-lived, less sustainable buildings and infrastructure. For example, high density mixed use development is desirable next to metro stations, but market conditions in some areas of the county support medium density townhouses resulting in far less green open space than would be provided with a more compact footprint of a mid to high-rise condominium building pattern.

8. **Lack of good design indicators.** Design by its very nature is subjective, and the results of any effort to achieve design excellence are not easily quantifiable, especially the intangible values of aesthetics, balance, composition and other purely design related components of the built form. The benefits of good design may be more readily apparent in a large signature-type project. But in most cases such benefits are subtler and require a certain critical mass of good examples over a period of time to have a material impact. The difficulties are summarized in "the value of urban design" by the Commission on Architecture and the Built Environment (CABE) as follows:
 - a. "The problem of defining urban design on simple scale from good to bad, and within that coping with the fact that urban design is both a product and a process.
 - b. The problem that good urban design-even more than good architectural design-generates benefits for adjoining sites and areas; therefore only a proportion of the benefit created by good design is enjoyed by those working in a particular development or visiting it as customers.
 - c. Even those benefits enjoyed by workers and customers may not be transmitted as profits to companies, to the rents paid by occupiers, or the valuations placed on buildings by investors.
 - d. Different stakeholders have different expectations regarding value."

APPENDIX C:

AIA COMMUNITIES BY DESIGN: 10 PRINCIPLES FOR LIVABLE COMMUNITIES

- 1. Design on a Human Scale**
Compact, pedestrian-friendly communities allow residents to walk to shops, services, cultural resources, and jobs and can reduce traffic congestion and benefit people's health.
- 2. Provide Choices**
People want variety in housing, shopping, recreation, transportation, and employment. Variety creates lively neighborhoods and accommodates residents in different stages of their lives.
- 3. Encourage Mixed-Use Development**
Integrating different land uses and providing a variety of building types creates vibrant, pedestrian-friendly and diverse communities.
- 4. Preserve Urban Centers**
Restoring, revitalizing, and infilling urban centers takes advantage of existing streets, services and buildings and avoids the need for new infrastructure. This helps to curb sprawl and promote stability for city neighborhoods.
- 5. Vary Transportation Options**
Giving people the option of walking, biking and using public transit, in addition to driving, reduces traffic congestion, protects the environment and encourages physical activity.
- 6. Build Vibrant Public Spaces**
Citizens need welcoming, well-defined public places to stimulate face-to-face interaction, collectively celebrate and mourn, encourage civic participation, admire public art, and gather for public events.
- 7. Create a Neighborhood Identity**
A "sense of place" gives neighborhoods a unique character, enhances the walking environment, and creates pride in the community.
- 8. Protect Environmental Resources**
A well-designed balance of nature and development preserves natural systems, protects waterways from pollution, reduces air pollution, and protects property values.
- 9. Conserve Landscapes**
Open space, farms, and wildlife habitat are essential for environmental, recreational, and cultural reasons.
- 10. Design Matters**
Design excellence is the foundation of successful and healthy communities.

**APPENDIX D:
THE BUILDING FOR LIFE QUESTIONS
(FROM CABE, THE VALUE HANDBOOK)**

Character

- 1 Does the scheme feel like a place with a distinctive character?
- 2 Do buildings exhibit architectural quality?
- 3 Are streets defined by a well-structured Building layout?
- 4 Do the buildings and layout make it easy to find your way around?
5. Does the scheme exploit existing buildings, landscape or topography?

Roads, Parking and Pedestrianization

- 6 Does the building layout take priority over the roads and car parking, so that the highways do not dominate?
- 7 Are the streets pedestrian, cycle and vehicle friendly?
- 8 Is the car parking well integrated and situated so it supports the street scene?
- 9 Does the scheme integrate with existing roads, paths and surrounding development?
- 10 Are public spaces and pedestrian routes overlooked and do they feel safe?

Design and Construction

- 11 Is the design specific to the scheme?
- 12 Is public space well designed and does it have suitable management arrangements in place?
- 13 Do buildings or spaces outperform statutory minima, such as Building Regulations?
- 14 Has the scheme made use of advances in construction or technology that enhance its performance, quality and attractiveness?
- 15 Do internal spaces and layout allow for adaptation, conversion or extension?

Environment and Community

- 16 Does the development have easy access to public transport?
- 17 Does the development have any features that reduce its environmental impact?
- 18 Is there a tenure mix that reflects the needs of the Local community?
- 19 Is there an accommodation mix that reflects the needs and aspirations of the local community?
- 20 Does the development provide for (or is it close to) community facilities, such as a school, parks, play areas, shops, pubs or cafes?

APPENDIX E: WHITE PAPER ON DESIGN EXCELLENCE

November 8, 2006

MEMORANDUM

TO: Montgomery County Planning Board

FROM: John Carter, Chief
Community-Based Planning Division

PARTICIPANTS: Khalid Afzal, Marion Clark, Marilyn Clemens, Robert Kronenburg,
David Lieb, Michael Ma, Calvin Nelson, Mary Beth O'Quin,
Margaret Rifkin

SUBJECT: Design Quality in Community Building

PROBLEM STATEMENT

Planning in Montgomery County in the next century will require significant attention to design quality in community building. Directing development to more dense Metro station areas and the I-270 Corridor and away from rural areas is a hallmark of the General Plan ...on Wedges and Corridors for Montgomery County. Montgomery County has a limited amount of available land for development. Redevelopment of existing areas including older retail centers is a focus of development. Preserving the character of the existing rural communities continues to be a challenge. The character of the major transportation travel routes could be significantly improved. These development conditions require attention to design in community building for success.

Existing regulations already provide a bonus density for including moderately priced dwelling units, work force housing, and amenities and facilities as an accepted practice in Montgomery County. Providing bonus densities requires quality design to establish compatibility with existing neighborhoods.

AUTHORIZATION IN THE ZONING ORDINANCE

The Montgomery County Zoning Ordinance provides some authorization for the Planning Board to address design issues. The CBD Zones provide the most significant opportunity for the review of buildings in central business districts. The Montgomery County Zoning Ordinance also provides authorization in select zones for the review of the layout of buildings, structures, and open spaces as part of the compatibility finding necessary during the review of site plans. The development standards (e.g. standards for building height, setback and open space) specified in all the zones provide another more limited method to address design standards.

The following paragraphs summarize the existing authorization in the Montgomery County Zoning Ordinance for the Planning Board to review design issues.

1. **Section 59-C-6.212. Intent of the CBD Zones**
 - (c) To encourage designs which produce a desirable relationship between buildings in the central business district, between buildings and the circulation system and between the central business district and adjacent areas.

2. **59-D-2.42. Findings for Approval of Project Plans**
 - (b) It would conform to the approved and adopted sector plan or an urban renewal plan approved under Chapter 56.
 - (c) Because of its location, size, intensity, design, operational characteristics and staging, it would be compatible with not detrimental to existing or potential development in the general neighborhood.

3. **59-D-3.4 Action by the Planning Board Concerning Site Plans**
 - (a)
 - (3) The locations of the buildings and structures, the open spaces, the landscaping, recreation facilities, and pedestrian and vehicular circulation systems are adequate, safe, and efficient
 - (4) Each structure and use is compatible with other uses and other site plans and with existing and proposed adjacent development
 - (b) The Planning Board shall not approve the site plan if it finds that the development would not achieve the maximum of compatibility, safety, efficiency and attractiveness; and the fact that the site plan complies with all the stated general regulations, development standards or specific requirements of the zone shall not, by itself, be deemed to create a presumption that the proposed site plan is, in fact, compatible with the surrounding land uses and, in itself, shall not be sufficient to require approval of the site plan.

4. **Development Standards in all Zones**

The Development Standards for setback, building height, green space, public use space, and pedestrian facilities in the existing zones provide a limited set of design standards.

OTHER TECHNIQUES AND AUTHORIZATION

The following paragraphs summarize the techniques established by the Planning Board to address design issues outside the Zoning Ordinance.

Guidelines Established by the Planning Department

The Planning Department has addressed design quality by providing design guidelines for public art in central business districts, establishing guidelines for the provision of streetscape in central business districts, and guidelines for development in areas such as the Germantown Town Center. The Planning Department has also provided design services to other departments including the design for the relocation of Montgomery College in Silver Spring, and the selection of sites for public facilities.

Standards for Streets and Highways and Other Requirements

The approved Road Code with the Published Design Standards establishes the requirements for streets and highways in Montgomery County. In addition, standards for stormwater management facilities, forest conservation, and the preservation of historic structures and environmental settings have also been established.

DISCUSSION AND RECOMMENDATIONS

The following recommendations are intended to augment and enhance design quality in community building in Montgomery County.

1. Master Plan Recommendations

The master plan process provides a significant opportunity for the Planning Department to emphasize design quality in community building. The next set of master plans include portions of two corridor cities, three Metro station areas, and three neighborhoods. These small area plans need a significant emphasis on design quality. These master plans should include extensive use of design guidelines, and reliance on the use of three dimensional visualization techniques. The master plan outreach process could be supplemented by establishing advisors or focus groups from the design fields to assist the Planning Board and staff in preparing design recommendations.

2. Create New Zones with Expanded Design Expectations

To implement the recommendations in the new set of master plans, new zones should be created. These new zones would replace the existing TS-M and TS-R Zones at Metro stations with four Euclidean zones with expectations for high quality design. In addition, a new floating zone could be created for use in large commercial areas. The new zones include the following:

- Create one mixed-use floating zone for large, commercial centers with requirements and standards based on design (form based codes and performance zoning (0.5 to 3.0 FAR)
- Create four Euclidean Zones for transit station areas with the use of a Project Plan with specific requirement for consistency with master plan recommendations concerning quality design (0.5, 1.0, 2.0 and 3.0 FAR)

3. Design Guidelines

The Planning Department could expand the use of streetscape standards. Bethesda, Friendship Heights and Silver Spring have long established streetscape standards. Streetscape standards will be necessary for the Shady Grove, Twinbrook and White Flint areas to allow the use of special street lighting, special sidewalk paving, closely spaced street trees and other elements that will substantially improve the character of these areas. Streetscape standards should also be considered for other areas in Montgomery County.

4. Expanding the Site Plan Review Process

The site plan review process is authorized to consider compatibility. The use of the compatibility finding could be used in appropriate cases to consider building materials, location of windows in addition to the more traditional reliance on

massing of buildings, setback and building height.

5. Design and Performance Measures Included in Master Plans

Specific design and performance measures could be included in master plans. Examples of performance measures include the following:

- Amount of open space and public use space
- Imperviousness
- Number of trees planted
- Length of streetscape

5. Community Design Presentations to the Planning Board

Recent presentations of the status of public and private development in Clarksburg and Silver Spring provided the Planning Board with an opportunity to assess the quality of design in community building. This post planning and post occupancy evaluation practice should be extended to other areas.

6. Expanded Visualization Techniques

An emphasis on quality design will require extensive use of visualization tools including the following:

- Three dimensional computer techniques
- Computer animation
- Rendering and delineation
- Photo library of high quality public and private projects
- Public use space examples and evaluations
- Documentation for the public art program

7. Newspaper Articles by Staff Members Concerning Community Design Issues and Ideas

The staff could be encouraged to prepare articles concerning community design issues to be included in both national and local publications. These articles could be used to both advocate and publicize high quality design in Montgomery County.

8. Community Design Awards Program

A design awards program could be established to publicize private projects approved by the Planning Board. A list of approved projects would include participating architects, landscape architects and planners involved in the design.

9. Create a Design Summit

A design summit could be established to review the authorization, techniques and approach to improving the design quality in community building for Montgomery County. This summit could be a joint effort with a respected design organization such as the American Institute of Architects or a university such as the College of Design of the University of Maryland.