

ABSTRACT

Title of Thesis: REINFORCING COMMUNITY: THE
MEANING OF PLACE ATTACHMENT AND
ITS APPLICATION IN THE REDESIGN OF
LANGLEY PARK

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Master of Landscape Architecture, 2011

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This thesis is a design study of a residential community in Langley Park, Maryland with a diverse international population, a mix of mid-twentieth century housing stock, and a car-oriented commercial center. Langley Park will experience dramatic changes over the next ten years as the proposed transit center and light rail line is realized.

The study proposes a new way for landscape architects to approach community design. It suggests that by consulting the scholarship of place attachment, designers can develop design strategies and apply them in design practice. Five strategies are proposed. Following a site analysis which identified assets and problems, the author established design objectives that would enhance the community's character and repair damage caused by a lack of connectivity. This thesis suggests designers can incorporate the concepts found in the literature of place attachment and thereby develop strategies to successfully achieve the design objectives.

REINFORCING COMMUNITY: THE MEANING OF PLACE ATTACHMENT
AND ITS APPLICATION IN THE REDESIGN OF LANGLEY PARK.

By

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Thesis submitted to the Faculty of the Graduate School of the
University of Maryland, College Park, in partial fulfillment
of the requirements for the degree of
Master of Landscape
Architecture
2011

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Acknowledgements

This Thesis would not have been possible without the dedication and support of my committee and friends.

Jack Sullivan, my main advisor, whose critical questions constantly challenged my design intelligence and evoked my creative thoughts in the design process.

Caren Yglesias, whose rich knowledge, design enthusiasm and sense of humor made me feel energetic and enjoy hardworking.

David Myers, who provided significant guidance for my literature review and kept encouraging me to apply the literature in my design study.

William Hanna, who shared with me his rich knowledge of the community.

Kory Kreiseder, Allison Palmer, Chris Myers, Michael Boeck and Kim Wharton, who supported me in various ways.

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Chapter 1: Introduction

The mission of this thesis is to explore the meaning of place attachment, find strategies to reinforce and strengthen people's engagement with their community, and to apply these strategies to the redesign of an existing community.

Place attachment has been studied by researchers from different disciplines for three decades and there is a rich literature exploring and explaining the meaning of place attachment. Despite the different definitions given by a variety of researchers, one common concept implied in almost all the references is that place attachment is a satisfying relationship between people and place.

Similar concepts are also frequently mentioned by landscape architects and urban planners in their efforts to raise the awareness of the importance of a community having a "sense of place". However, strategies for achieving a "sense of community" have not been adequately developed. In the author's opinion, one way to fill the gap is to refer to the rich literature on place attachment found throughout a wide range of disciplines, to develop a holistic understanding of the concept of place attachment, and, from this research, to investigate possible strategies which can be applied in community design.

Therefore, this study was initiated with a literature review that covered the disciplines of psychology, sociology, geography, and communication. A rich meaning of place attachment has evolved from this literature. From the interpretation of the literature, the author developed several strategies for promoting a sense of community in the design process. These strategies include the following: 1. fit the site into its context; 2. recognize and design of hierarchical spatial ranges; 3. evoke people's

curiosity; 4. reflect the social life of the community in the physical environment; and 5. reinforce community identity.

This study applies these strategies in the redesign of Langley Park, Maryland. Langley Park is a suburban community in the Washington DC metropolitan area with over eighty percent Hispanic population. Its convenient location, unique site conditions, rich community life, and residents with multicultural backgrounds provide many opportunities to transform it from housing into a desirable community where people will be strongly connected to ideals of home and fully engaged in a healthy civic life. The unique conditions of this neighborhood have not yet been fully understood nor have they been adequately appreciated or properly taken advantage of. Its current problems include poor physical neighborhood connections, weak pedestrian links, isolation from the shopping center, underappreciated historic resources, underused open space, blocked views, and crime issue, all of which have prevented the establishment of a clear sense of community. One result of these problems, or negative characteristics, is that Langley Park is a step up for most people who move in, but many residents hope to improve themselves by moving out (Hanna, 1996). This is a clear sign of a lack of engagement with the community and of a lack of place attachment. Langley Park's current problems need to be solved, yet there are many opportunities for establishing a strong sense of community. The evidence demonstrates that place attachment is absent in Langley Park and this makes it an ideal site to implement—or test—the design strategies that have been derived from the literature of place attachment.

The overall design objective is to address existing problems in the community and attempt to develop a sense of community. Specific objectives are to improve the local pedestrian connection, to reinforce the sense of community hear for the community institutions as well as the open space surrounding them, to improve the relationship between the shopping center and the community behind it and to improve the richness, accessibility and excitement of the existing open space.

A master plan and two focus area design studies of an existing community are developed to achieve the objectives and at the same time to apply the strategies inspired by the literature. The strategies applied in the master plan are to explore an ideal relationship between the site and its context as well as between the different hierarchical spatial ranges within the community. The strategies that are applied in the focus area designs are to evoke people's curiosity, to reflect people's actual outdoor life in physical space design, and to highlight the local historic resources improving the community identity.

Chapter 2: Literature Review

2.1 Definition of Place Attachment

According to M. Carmen Hidalgo and Bernardo Hernandez's study about the definition of place attachment, a generally accepted definition of place attachment is an affective bond or link between people and specific places (2001). For Shumaker and Taylor, it is a positive affective bond or association between individuals and their residential environment (1983). Hummon considers it emotional involvement with places. Low defines it as an individual's cognitive or emotional connection to a particular setting or milieu (1992). Hidalgo and Hernandez further elaborated the definition of place attachment as a positive affective bond between an individual and a specific place, the main characteristic of which is the tendency of the individual to maintain closeness to such a place (2001).

2.2 Need for Interdisciplinary Study

Place attachment has been studied by geographers, sociologists, environmental psychologists and community psychologists for over three decades; however, there are seldom dialogues between the paralleling studies in different disciplines. Lynne C. Manzo pointed out her concern about the lack of interdisciplinary studies when it comes to community design (2006). Environmental psychologists study people's affective relationships with places, while sociologists and community psychologists study community development concepts; however, people seldom relate place attachment and community planning together due to the lack of disciplinary cross-pollination. In Manzo's point of view, the study of place attachment should never be limited to one discipline. She proposed a framework method from an ecological

perspective using multiple environmental domains and levels to analyze factors for community well-being.

Manzo's proposal can also be applied to the profession of landscape architecture. In the author's opinion, an interdisciplinary study about the literature on place attachment is necessary and significant because the rich meaning of place attachment will provide a solid theoretical basis upon which strategies can be developed and applied to design practice. By filling the gap between research and design, the author seeks to find ways to create a true sense of place in the community design.

2.3 Scenario

Researchers have long been working on broadening the scopes of place attachment study by increasing the types of attached places and including diverse age groups.

2.3.1 Place Attachment to Urban Neighborhoods

The concept of place attachment is most commonly used in urban neighborhood studies as a strategy to revitalize abandoned neighborhoods. Some of the studies are successful such as Bronx neighborhoods revitalization and Mill Creek Neighborhoods revitalization, while other studies such as the two Chicago neighborhoods study indicate that the attempts to reestablish people's attachment to their neighborhood do not always succeed.

Alexander Von Hoffman in his essay *Miracle on 174th Street* Alexander Von told a story of residents and local organizations' decades of efforts in revitalizing the neighborhoods in Bronx (2003). There was no master plan for the revitalization of the whole area and its improvement is an accumulation of a series of small projects on

house or block scales. Here the author implies that neighborhood wellbeing does not always determine sense of attachment. In the case of the Bronx neighborhoods where residents are deeply rooted in their neighborhood, the depression turned to strong motivation for revitalizing the neighborhood.

Anne Whiston Spirn presented her study about the declined Mill Creek neighborhood (2005). Through studying local history, Spirn found that the historic plan of infilling Mill Creek and building the community above the stream which caused constant land collapses was the major reason leading to the neighborhood decline. After her failure to persuade the city to restore the land above the historic stream and make it a place for stormwater collection, Spirn started working with local elementary schools to establish a proposed stormwater treatment system on vacant lots. This educational program turned out to be a big success and kids in this neighborhood no longer dreamed to leave after they grow up. Spirn implied that a critical step to reestablish residents' attachment to their community is to raise their literacy about the resources, the problems, the local history, the alternatives for the future and how these factors are related.

Sean Zielenbach's comparison study in his essay *Decline and Revitalization: A Tale of Two Neighborhoods* (2000) told the story of two distressed neighborhoods in Chicago, North Lawndale and Englewood. North Lawndale was revitalized while Englewood was abandoned. According to the author there are mainly three factors which made the difference. First, the new development on the abandoned site of an old factory sparked considerable investment in North Lawndale. In contrast, Englewood did not have a catalytic project. Second, Lawndale benefited from the

commitment of large corporate institutions and community organizations, while Englewood did not have strong community organizations to spearhead revitalization. Third, Lawndale has a stronger social network system which provided access to more internal and external resources. Englewood's limited social capital hampered efforts to attract and to mobilize the resources necessary for economic improvement. In this essay the author conveyed an idea that both inside and outside factors will influence successfulness of community revitalization. He concludes that place attachment is vital to the well-being of a neighborhood.

2.3.2 Place Attachment to Rural Neighborhoods

As the study scopes are broadened, more and more have started focusing on the role of place attachment in rural neighborhoods. Amanda J. Walker and Robert Ryan did a survey in a rural residential area in Maine (2008). The objectives of the survey are to examine local residents' levels of attachment to different rural landscape types, the relationship between levels of attachment and residents' attitudes towards conservation, and the attachment of different age groups. The survey is consisted of a written questionnaire and a photo booklet with 24 black and white landscape scenes. The written questions asked respondents to rate the value that they placed on rural landscapes characteristics in the town, their sense of change in the town landscape, and their willingness to consider different types of conservation or land use planning strategies. The photo questions asked participants to rate their attachment to different rural landscape scenes including woodland, open fields, farms, orchards, lakes, roadways, and various cultural elements unique to the town. The survey results

supported their initial study hypothesis that place attachment may be a motivation to support landscape protection.

John E. Turner, Vicki L. Hesli, Dong Suh Bark and Hoon Yu did a rural community study in Korea which demonstrated how Korean people's attachment to home changed during the urbanization in the 20th century (1994). Before urbanization most population live in rural villages and usually one village accommodated one extended family. In this kind of traditional community, social ties were largely reinforced by family ties, which resulted in obedience of community members to the large community body. After most population moved into the city, social ties were weakened in both cities and villages. Social ties in cities are weak because of the absence of family ties and the existence of competition. And the strong social ties in villages were broken due to large population outflow.

2.3.3 Place Attachment to Plazas, Sacred Places and Tourism Destinations

Further studies pushed the concept of place attachment beyond the scope of residential landscape. Urban plaza, sacred place and tourism destination are among the new landscape types upon which the idea of place attachment is tested.

Setha M. Low's case study in Parque Central (central plaza), San Jose, Costa Rica (1992) proposed six processes for required place attachment to occur: genealogy, loss or destruction, economics, cosmology, pilgrimage, narrative. The case study illustrates how the six processes function together within one culture setting. The study was based on three field visits and two intensive fieldwork periods for four months, from 1972 to 1987. Methods applied are behavioral observation, behavioral mapping, sample population counts, photographic recording, interview with occupants and

nonoccupants in the surrounding neighborhood, library research, interviews of historians and other academics specializing in the history of San Jose, interviews with governmental agencies and private owners. Low's study is among the very few which specifically included the physical space in relation to place attachment. Also, Low managed to redefine place attachment saying it could happen beyond community and it does not have to be reinforced on a daily basis. A routine weekly, monthly or even annually visit is also a sign of attachment.

Sanjoy Mazumdar studied people's attachment to religious places. In his paper Religious Place Attachment, Squatting, and 'Qualitative' Research: A commentary (2005), he addresses how the religious basis for place attachment can be identified and what actions people take to settle in specific places. Mazumdar raised the question of whether this kind of place attachment is based on ideological reasons or religious reasons. His conclusion was the two aspects cannot set apart from each other.

Charles Changuk Lee's study about tourists' attachment to destinations was presented in Predicting Tourist Attachment to Destinations (2008). He conducted a mail survey in May and June of 1998 in Myrtle Beach area of North Carolina and the city of Charleston in South Carolina. His conclusion is that family tradition, attractiveness of the destination, satisfaction, past experience, familiarity with the destination, and the age of the tourist at his/her first visit are the factors which function when the tourist develops a sense of attachment to the destination. He emphasized that family trips and especially childhood travel with family members help develop a sense of attachment to a destination. As a consequence, destination

marketers in Charleston and the Myrtle Beach areas need to preserve their family orientation by promoting events that appeal to such markets.

2.3.4 Place Attachment of Specific Group of People

There are several studies focusing on the place attachment of specific group of people. Kevin E McHugh and Robert C Mings in *The Circle of Migration: Attachment to Place in Aging* (1996) studied the snowbird phenomenon among seniors from the place attachment point of view. Twelve couples who are typical repeat winter residents of a retirement community in Phoenix were studied. Over a three year period researchers meet participants in their winter homes and contact them via email during the summer while they were away from Phoenix. Discussions with these couples covered the topics of migration and travel histories, occupation and work histories, children and family ties, activities and leisure pursuits throughout the year, involvement in community and church groups, personal health and health care, and their outlook about the future. Researchers also attended social activities in their retirement community to gain the insights into their ordinary life. According to different extents of home place attachment McHugh and Mings classified snowbirds into three types: still rooted, suspended and footloose.

Dena Shenk, Kazumi Kuwahara and Diane Zablotzky further narrowed the research subject to women seniors in *Older Women's Attachments to Their Home and Possessions* (2004). This study is based on interviews with four older widows in Charlotte, NC, who still live in the homes where they lived with their deceased husbands. After initial contact by telephone, three interviews were conducted with each respondent in the participant's home during spring 2001. During the first

interview, each participant was asked to talk about her husband, marriage, child rearing, her husband's death, and widowhood. In the second interview, the participant was asked to show the interviewer around her home, and spontaneous questions were asked during the tour. In the third interview the participant was asked to describe her home environment and typical day at home, including issues related to daily routines, favorite activities, and personal rituals. The authors pointed out that the phenomenon that widow seniors tend to remain in their homes after the death of their husbands has to do with place attachment.

Elaine C. Wiersma studied veterans' sense of place in *Experiences of Place: Veterans with Dementia Making Meaning of Their Environments* (2008). Wiersma examined how older veterans view the long-term care facility as place and how they make meaning of their experiences within specific places.

Louise Chawla presented her study of another subgroup-children-in *Childhood place attachment* (1992). Her study focus was the relationship between place use, place preference, and attachment. She used two survey techniques: environmental autobiographies and behavioral mapping. In the first technique, Chawla asked adults to recall important places in their childhood through drawing, writing or interviews. In the second technique, she observed children's behavior pattern and talked with them directly. Her conclusion was that children have a general pattern of life centered around home, and indoor space such as bedroom is also where place attachment can occur, a conclusion usually neglected by researchers.

2.4 Inspiring Studies

2.4.1 House-Neighborhood-City

Hidalgo and Hernandez found previous studies ambiguous in terms of spatial ranges and subject dimensions of place attachment. In order to clarify this ambiguity, they did a survey in a medium sized city in Spain aiming to test the degree of attachment to three different spatial ranges: house, neighborhood, city, and two subject dimensions: physical and social dimensions. They were also trying to find out whether place attachment varies among different age and gender groups and social class. A total of 177 residents in Santa Cruz de Tenerife, Spain participated in this survey. They were selected by quota sampling which took into account age, sex and social class. Psychology students who were trained in interview techniques carried out the interviews and sent out the questionnaires. The interviews were carried out individually at the home of the participant and lasted eleven minutes on average. Researchers used a 2 by 3 factorial design, where the dimension of attachment had two levels -social and physical, and the spatial range had three levels -house, neighborhood and city. They adapted the format “I would be unhappy to leave”. For example, “I would be sorry to move out of my neighborhood with the people I live with” is a statement demonstrating a person’s stronger attachment to the physical environment than the social context; and “I would not be sorry to move out of my neighborhood with the people I live with’ is a statement demonstrating a stronger attachment to the social context rather than the physical environment of the community. Then researchers made comparisons across different dimensions and ranges as well as different age, gender, social class groups. Their conclusion is that in

the surveyed area, house attachment is more important than neighborhood attachment and city attachment, and social attachment is more important than physical attachment. They used a very systematic and straightforward approach to test how different factors influence place attachment. The authors pointed out the limitation of this study: the results depended on specific areas thus were not able to be generalized.

In Chawla's study about children's place attachment, stated above, another progressive aspect is that she pointed out that indoor space and even one's own bedroom are also important areas where place attachment can happen, places usually neglected by researchers.

When people say place attachment, some may take it for granted that the place refers to neighborhood and the scale issue is often neglected. The concept of spatial ranges provides a brand new perspective when working on improving people's place attachment. In order to achieve an overall real attachment, home s, blocks, neighborhood, and region should all be given consideration.

2.4.2 People-Place

Another inspiring aspect of Hidalgo and Hernandez's study, stated above, is that they proposed two dimensions of a place, physical dimension and social dimension, which is also interpreted by the author as place and people. While the physical dimension is given priority in most designs, the social dimension is often neglected by designers. It is true that many designers have pointed out that this is a problem in the profession, however so far there is still a gap between the two dimensions in the design practice. In the author's opinion, there are two critical questions regarding the gap. First, how does the physical dimension and social dimension relate to each other,

i.e. how do people experience the place? Second, how do the two dimensions function as a whole to influence people's degree of place attachment? In this community design project, how people experience the place will be given a lot of consideration.

2.4.3 Curiosity-Attachment

John Bowlby's Control System Model of Motivation (1969) is another inspiration of the design proposal. He proposed several innate behavioral control systems that serve the biological function of survival and procreation and the two which are most important among these behavioral control systems are the attachment system and the exploration system. The attachment system exists to bring the infant into close proximity with its caregiver, thereby protecting the infant from harm. The exploration system exists to propel the infant into the world to learn about the environment, thereby enhance the likelihood of its survival. A central tenet of Control System Model of Motivation is that the operation of the attachment and exploration systems is closely intertwined (Ainsworth, Blehar, Waters & Wall, 1978).

The Attachment Theory further clarifies the relationship between curiosity and attachment. Still to use an infant's behavioral control system as an example: the exploration system propels the infant into the environment to explore and learn, but this exploratory activity exposes the child to risk. When danger is sensed, the attachment system is activated, impelling the child to return to the attachment figure for protection. In normal development, there is a complementary balance between the two systems, enabling the infant to learn about the environment within the protective context of a proximal and responsive caregiver.

The juxtaposition of curiosity with attachment provides another way to improve people's attachment: the more curious a person is about a place, the more attached he or she would feel; and the more attached a person is to a place, the more curious he or she would be to explore more about the place. The author will apply these psychology researches in the design so as to create a psychologically attached community. This strategy will be emphasized in the design proposal.

2.4.4 Site-Context

More and more researchers and designers are participating in various discussions of the relationship between a site and its context especially when the site is located in a changing context.

William P. Stewart, Derek Liebert and Kevin W. Larkin in "Community identities as visions for landscape change" (2003) pointed out that in the urbanization process the growth of residential development and retail districts constantly cause the boundary of urban areas to move outward, which provides an inevitable changing context. In their opinion, the inevitability of growth is not a problem and the primary concerns are the abilities of communities to influence the nature of their growth and their relationship to changes in land use. In their paper "Design for Rising Sea Levels" (2007) landscape architects Kristina Hill and Jonathan Barnett introduced their studies of the design strategies which can be used in face of a more dramatic and uncertain change of a large context-the globe.

Although few relationship has been built by researchers between people's place attachment and the context where the place is located, in the author's opinion a real place attachment can only be possible and stable when there is a nice relationship

between the site and its context. It should be the first step in a design proposal before proposing any other strategies for improving the sense of attachment. And this relationship should be a dynamic one due to the change of the context over time, which will make the place attachment also a dynamic attachment.

2.4.5 Place Identity-Place Attachment

Both place identity and place attachment refer to people's bonds with places. Although it is still controversial how the two concepts are related with each other, there is a consensus that there is a complex and rich relationship between these two. Maria Lewicka stated in *Place Attachment, Place Identity, and Place Memory: Restoring the Forgotten City Past* (2008), that sometimes the two concepts are interchangeable. Sometimes place attachment is subsumed under the concept of place identity, sometimes place attachment is considered to precede formation of place identity which means it takes more than attachment to incorporate the place as part of one's life. Lewicka proposed that to restore the forgotten past is a way to reinforce both attachment and identity.

Based on Lewicka's interpretation, this author makes an assumption that place identity and place attachment can reinforce each other and improving place identity should be one way to improve place attachment. In the design proposal, the local history will be studied so as to discover lost place identity.

2.4.6 Developing Design Strategies from Literature Review

To summarize, five strategies arose from the above five aspects of the research on reinforcing people's attachment to place. The author will apply each strategy in several ways in a community design.

a. To fit the site into its context

Real place attachment can only be possible and stable when there is a positive relationship between the site and its context. The study of this relationship should be the first step in the design process. Further, this relationship should be considered to be dynamic due the changes to the context over time, which means the site should change with its changing context. And people's attachment to the place should also be dynamic. In the design proposal, this aspect is given primary consideration.

b. To design on hierarchical spatial ranges

Community is not the only scale in the design consideration although it is a very important one. The spatial ranges of home and block are often neglected and fail to be given enough importance. In the author's opinion, these smaller scales are very important in a community design so as to create a sense of place and to avoid the intrusiveness of the proposal. The design proposal will emphasize this idea.

c. To evoke people's curiosity to the place

According to psychology research, the more a person is curious about a place, the more attachment he will find to this place. Curiosity is a motivation for exploring place, which will further lead to a reinforced relationship between people and place. And the fact that once a person's sense of curiosity is fulfilled through exploration, he will gain a strong sense of achievement, which is another reason why evoking curiosity is important in developing people's sense of attachment.

d. To reflect social life in physical environment design

It is important to realize the importance of the social dimension and its relationship with the physical environment. For landscape architects, critical

questions are how to make the designed environment match with people's actual outdoor life, and how to make the two dimensions function as a whole to create a sense of place. Ideas are tested in the design proposal.

e. To reinforce the community identity

Place identity and place attachment will reinforce each other in a complex process. And in order to improve residents' identity with a community, designers need to refer to the local history and culture so as to find the rich content of the community.

Chapter 3: Site Introduction

3.1 Overview

There can be many ways to describe this community, but there is no brief sentence that can summarize the interesting site and its lovely people adequately:

It is a suburban community in Washington DC metropolitan area;

It has 81.79% Hispanic population and the average family income is below national average (census 2010);

It is located next to major collector roads and has convenient regional connection;

New bus transit center and metro station are being proposed near the community;

It is behind the regional commercial area and faces an ugly service road;

It is close to a scenery trail which is unrecognized by many residents;

It has of a large historic estate which is unknown to most residents;

It has a historic mansion listed on the National Register of Historic Places which is not recognized by many residents;

It has plenty of community institutions, which are underused;

It has adequate open space, which is also mostly underused;

It has a rolling topography which provides nice views however the views are blocked;

It has people who love outdoor life and the sidewalks, front doors, parking lot, shopping centers, balconies, and dead end roads are used for socializing;

Its people know their neighbors and chances for them to meet acquaintances in the community seem to be very high;

Crime issues cause safety concern which constrains the use of outdoor space;

People do not live in this community for very long and turnover rates are high.

The list can continue, but the overview provides an impression of a community with very rich content. This is Langley Park, Maryland.

3.2 Why Langley Park

Langley Park's convenient location, unique site conditions, rich community life and residents with multicultural backgrounds provide opportunities to change it into a desirable community where people can be strongly attached to their community. However, community has not been able to take advantage of the unique site conditions. Current problems such as poor local connection, weak pedestrian connection, isolation from the shopping center, unrecognized historic resources, underused open space, blocked nice views and crime issues prevent the establishment of the sense of community. A result is that even though Langley Park is a step up for most people who move in economically, many residents hope to improve themselves further by moving out. (Hanna, 1996), which is a clear sign of a lack of community attachment. To summarize, the currently problems which need to be addressed, the opportunities for establishing a strong sense of community, and the evidence that place attachment is absent make Langley Park an ideal site where to apply the design strategies derived from the literature of place attachment in the community design.

3.3 Mission Statement

The mission of the design is to apply the strategies drawn from the literature review in the redesign of Langley Park so as to achieve the design objective of solving existing problems.

Chapter 4: Site Analysis

4.1 Location

Langley Park is an unincorporated area in Prince George's County, Maryland which is in the metropolitan area of Washington DC. (fig. 1)

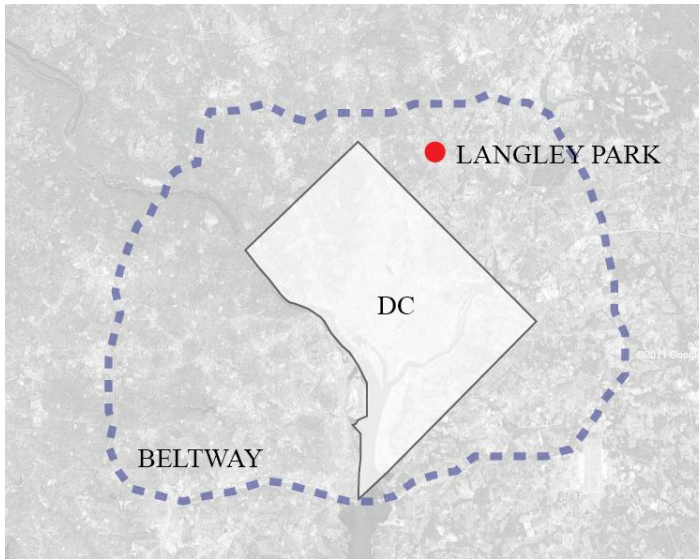


Figure 1 Regional Context Map, Google Map

The site is located on the north side of University Boulevard between New Hampshire Avenue and Riggs Road. The International Corridor commercial area along University Boulevard is also close to the site. The proposed Purple Line subway will run along University Boulevard and provide two metro stations at the intersections with New Hampshire Avenue and Riggs Road (Maryland Transit Administration). The new Langley-Takoma Transit Center is proposed to be built on the northwest corner of Langley-Takoma Intersection. Northwest Branch Trail runs on the northeast of the site. (fig. 2)



Figure 2 Local Context Map, Google Map

Medium Density Multifamily Dwelling is the major housing type on site. Residential buildings were built in two periods: 1951 and 1970. The shopping center on the northeast corner of Langley-Takoma Intersection, the community center and elementary school on the north of Merrimac Road are also included in the design in order to explore the relationship between the residential areas, shopping and parkland (fig. 3)



Figure 3 Zoning Map, GIS

4.2 Demographics

In Langley Park, there has been a dramatic racial/ethnic composition change between 1970 and 1995. The white population dropped from the 11,000's in 1970 to below 2,000 in 1995. The African American population increased between 1970 and 1990, but then dropped after 1990. The Hispanic population increased dramatically after 1980 reaching a high percentage of 81.79 in 2010. (fig. 4)

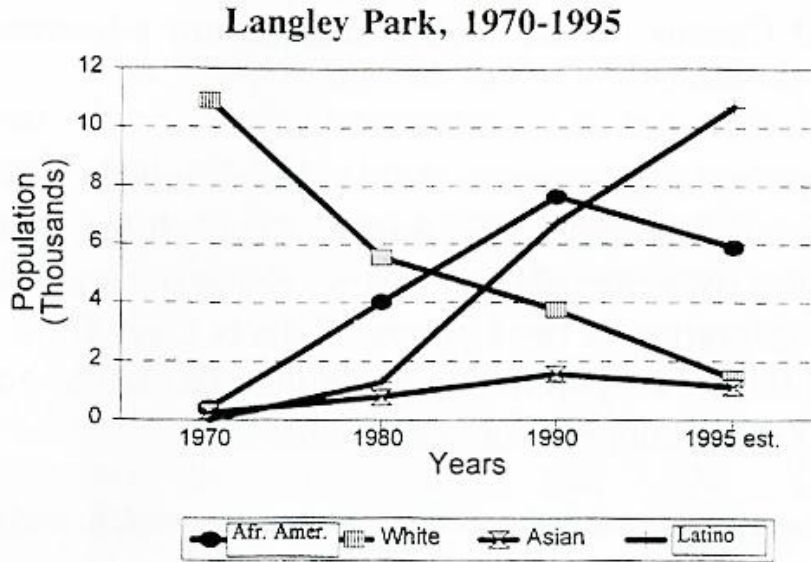


Figure 4 Demographic Changes between 1970 and 1995 (Hanna, 1996)

According to the 2010 Census, Langley Park’s population decreased 4.7% over the past ten years. 16.6% of the residents live below the poverty line compared with the US average of 14.3%. The median household income is \$47,436 compared with the US median household income of \$51,660. Residents’ median age is 30.5 years compared with the US median age of 36.8 years. And the median home age is 50 years. In terms of commute mode, 42.34 % of the residents drive to work alone, 27.53% of the residents carpool to work, 20.12% of the residents use mass transit, and 1.17% of the residents work at home. (Census 2010)

4.3 Assets

4.3.1 Strong Regional Connectivity

University Boulevard, New Hampshire Avenue and Riggs Road border the site and are major state highways providing strong automobile connections with the large surrounding area. (fig. 5) The proposed Langley-Takoma Transit Center and the adjacent metro stations of the Purple Line will further improve the area’s accessibility.



Figure 5 Regional Road System, author

4.3.2 Proximity with Shopping

The community is situated next to a large shopping center on the northeast corner of Langley-Takoma Crossroad. The short distance provides residents with opportunities of fully enjoying the flourishing commercial life. (fig. 6) The edge between the shopping center and the community provides space for potential local business development.



Figure 6 Existing Shopping Center, author

4.3.3 Historic Resources

The ground where the community was built and the McComick-Goodhart Mansion are important elements of the local history which can be taken advantage of to reinforce community identity. These are resources which will be integrated in the design proposal in order to evoke people's thoughts about the uniqueness of the community, and to strengthen the relationship between people and place.

Originally, the site was part of the 565 acre Langley Park Estate established by the McComick-Goodhart family in 1923. It included the mansion, a greenhouse to the west, a man-made landscaped lake that is 300 feet long by 100 feet wide to the north, a carriage house to the east, and a right-of-way drive to the mansion from the south. On the estate, the most dominant building is the McCormick-Goodhart Mansion. It is a Georgian Revival mansion built in 1924 and used as the country house of the estate. Sold in 1947, it has had different functions since then such as seminary, school and nursery, and is currently used as a multicultural community center. The historic mansion was listed on the National Register of Historic Places on August 29, 2008. (fig. 7, fig. 8, fig.9)



Figure 7 View of The Mansion and The Triangular Meadow from The South, author



Figure 8 The West Side of The Mansion, author



Figure 9 The Back of The Mansion, author

Some of the historic character defining features are still visible today. Besides the historic mansion, the carriage house serves as the pool house for a swimming pool, the right-of-way provides an open meadow in front of the mansion, and the site of the lake is still the low topographic area within its surrounding and remains a large underused open space. These features will all be retained in the design proposal.

4.3.4 Community Institutions

Besides the multicultural community center, other community institutions include a community center, an elementary school and a boys and girls club, all of which are to the north of the historic mansion. Collectively, these community institutions provide the residents with many opportunities to socialize with their neighbors and to develop a sense of being part of a community. (fig. 10, fig. 11)



Figure 10 Elementary School



Figure 11 Boys and Girls Club

4.3.5 Ample Open Space

The triangular meadow in front of the historic mansion, (fig. 7) the linear space in front of the mansion (fig. 12), the open space on the south of Merrimac Drive, (fig. 13) and the large playground on the west of the community center (fig. 14) and the open space behind the elementary school (fig.15) are major large open space areas. The garden style apartment buildings are arranged to provide another kind of open

courtyard-type space which is even closer to people's daily life.(fig. 16) Thus there exists ample open space where people can enjoy the outdoor life and improve their attachment to the community.



Figure 12 Linear Space in Front of the Mansion, author



Figure 13 Open Space on the South Side of Merrimac Drive, author



Figure 14 Playground on the West of the Mansion, author



Figure 15 Open Space Behind the Elementary School, author



Figure 16 A Courtyard Surrounded by Garden Style Apartment, author

4.3.6 Axis of Connectivity

There are two major axes which tie the existing community “attractions” together. The civic axis runs along the historic mansion, the community center, the elementary school and the boys and girls club. (fig. 17, fig. 18) The community axis connects the shopping center and the historic mansion. Along the two axes are places where people can enjoy spectacular views of the rolling hills because of the changing topography.



Figure 17 View towards the North on the Civic Axis, author



Figure 18 View towards the South on the Civic Axis, author

4.3.7 People

People are the most important assets of a place. In this multicultural and multiethnic community, its residents are particularly important to the uniqueness and identity of the community. Spanish is the most commonly used language. Ethnic food is a magnet attracting customers from outside the community. Ties within extended families are strong. Socialization among neighbors is an important part of people’s daily life. Many Hispanic people love the outdoor life. In a word, the residents have traditions of using public space which inspired to the design proposal and are key elements employed to reinforce the relationship between people and place.

A general impression from the site visits is that there are many pedestrians in this community as people make much use of the outdoor space. Running into acquaintances and chatting under the arcade of the shopping center (fig. 19), watching friends playing basketball on the small ball field west of the historic mansion (fig. 20), playing ball games next to the trash cans on the dead end road north of the mansion (fig. 21), sitting on the short walls in front of the mansion and enjoying the spectacular view of the rolling hills (fig. 22), socializing with neighbors on the sidewalks (fig. 23), making phone calls on the apartments' front porches, listening to music on the parking lots, children playing on their balcony (fig. 24) are all ways people use outdoor space in this community on an ordinary sunny day. Some are activities which should be incorporated into the design proposal; others may be the result of the shortage of available open space. To summarize, how people use open space will be a key consideration in the entire design process.



Figure 19 Shopping Center, author



Figure 20 Ball Field on the West of the
the Mansion, author

Figure 21 Dead End Road, author



Figure 22 the Short Wall in front of the Mansion, author



Figure 23 Sidewalk, author



Figure 24 A Balcony where Kids Play, author

Some of the assets are demonstrated in the following map (fig. 25)

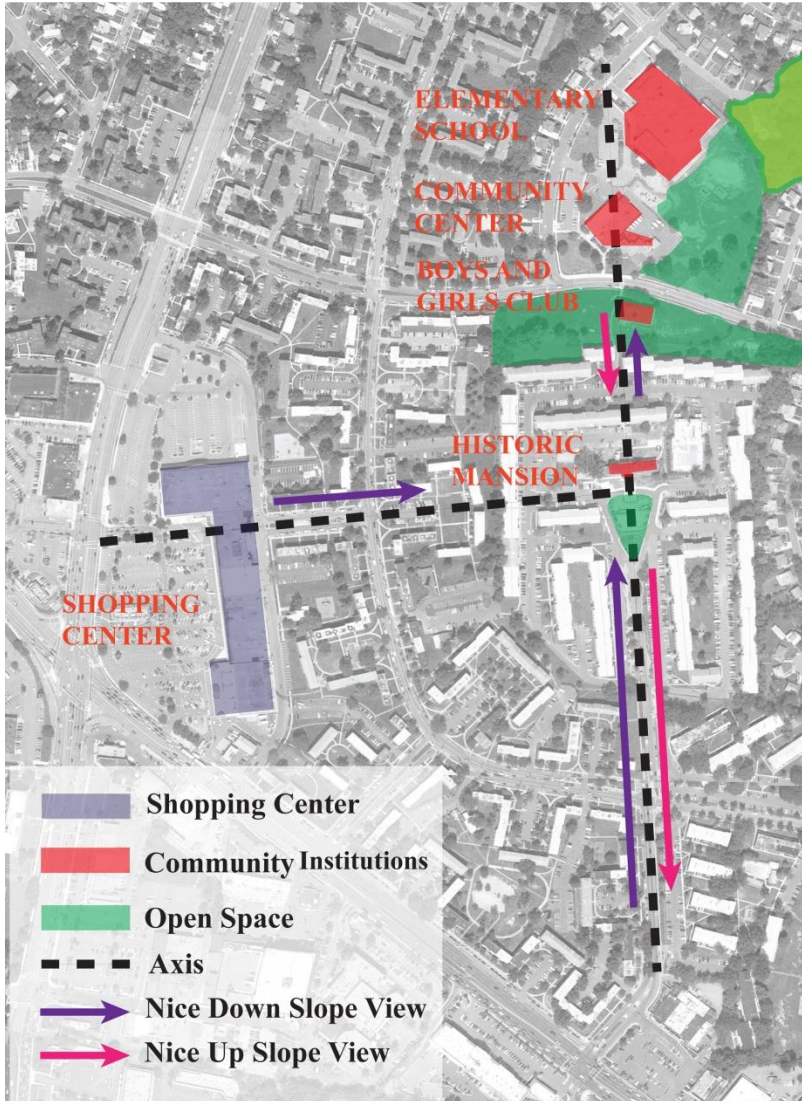


Figure 25 Map of the Community Assets, author

4.4 Problems

4.4.1 Poor Local Connections

The three major collector roads and the International Corridor isolate the community from its surrounding neighborhoods. The community's growing process over time makes the connections within this community unsatisfactory. There were two significant periods in the community's development history. The apartment

buildings along 14th Avenue, Merrimac Road and New Riggs Road were built in the 1950s and the central residential area surrounding the historic mansion was developed in 1970, making the area between University Boulevard, New Hampshire Avenue, Riggs Road and Northwest Branch, three separated residential developments with almost completely impermeable edges in between. None of these three areas have a distinct sense of community. (fig. 27)



Figure 26 Map of the Housing Development in 1951 (historic map, Library of Congress)



Figure 27 Map of the Housing Development in 1970 (historic map, Library of Congress)

The poor condition of existing sidewalks adds to the dissatisfaction of walking in this community. Although there are sidewalks along the community streets, lack of traffic lights and crossing signs cause traffic problems and make walking unsafe.

The nearby shopping center, the community institutions and Northwest Branch Trail are considered major attractions in this community; however, none are easily accessible for pedestrians. There are no local streets connecting the community with the shopping center (fig. 28). From the mansion side, people can hardly find a way to

get to other community institutions (fig. 29). From the community center side, the historic mansion is completely invisible (fig. 30). And the pedestrian connection with Northwest Branch Trail is unknown to many residents. As a result, most residents don't use the community institutions or the Northwest Branch Trail.



Figure 28 No Local Connection with the Shopping Center, author



Figure 29 Poor Accessibility to Community Center, author Figure 30 Poor Connection at the Back of the Mansion, author

4.4.2 Isolation from the Shopping Center

The community faces Edwards Road, which is an unattractive service road at the back of the shopping center. Also, there are no local streets connecting the back with the front. As a result, despite the proximity, the nearby commercial life is not very approachable for local residents. This kind of spatial layout has an even more profound impact on the community life. The unattractive façade and lack of connection makes the area along the edge undesirable to both vehicles and pedestrians (fig. 31). What makes the situation of this road worse is that most

apartment buildings have driveway entrances on the nearby 14th Avenue rather than Edwards Road, leaving the vast parking lot along Edwards Road unoccupied and the sidewalks underused. The low vehicle and pedestrian traffic flows make Edwards Road attractive to criminals. A sign of the isolation between the community and the shopping center is the fence located almost all the way along the edge on the community side.



Figure 31 the Edge between the Community and the Shopping Center, author

4.4.3 Unrecognized Historic Resources

Despite the recent restoration by CASA of Maryland, the historic mansion has not been fully recognized by the residents as the community identifier. The invisibility and spatial isolation from the west part of the community prevents it from serving a larger area which used to be part of the estate and has a historical tie.

The ground surrounding the mansion has not been fully utilized to highlight the importance of the mansion or provide more open space for outdoor life. The poor relationship between the mansion and the ground on the west and north of it results in the disconnection between the historic resources and the community. (fig. 32, fig. 33)



Figure 32 West of the Mansion, author Figure 33 North of the Mansion, author

4.4.4 Underused Open Space

Both the large community open space and the courtyards attached with the apartment buildings are underused. The only exceptions are the triangular meadow in front of the mansion and the playgrounds on the west of it. People like walking on the front meadow and sitting on the short wall to enjoy the spectacular views of the rolling hill. People also use the playgrounds to play and watch various ball games. However, the two pieces of open space are far from enough to fulfill people's need for outdoor life.

Larger amounts of open space are underused and even abandoned. The linear green space in front of the mansion is divided by two driveways and it is not pedestrian friendly. The open space at the back of the mansion is occupied by parking lots and steps. The largest piece of open space is located on the south of Merrimac Road and it is fully abandoned providing an unattractive community facade. Almost all the courtyards at the back of the apartment buildings are underused. (fig. 34)



Figure 34 Underused Courtyards

The main reasons for the underuse of open space are poor accessibility, lack of attraction and safety concerns. For the large community space, it is only conveniently accessible to a small group of people who live in the surrounding buildings. The poor accessibility and visibility of the space make it perceived by residents as unsafe. Most open space is not facilitated with attractions such as playgrounds, benches or nice views, thus it lacks reasons for people stay in or visit it. For the courtyards, front courtyards are occupied by large parking lots and back courtyards are perceived to be boring and unsafe. Although there are numerous walkways connecting the courtyards together, the lack of destination and orientation makes the pedestrian movement difficult. The poor accessibility, lack of attraction and safety concerns will be addressed in the design proposal.

4.4.5 Nice Views-Blocked

The positive views along the two axes are blocked by one or two buildings that have not been taken advantage of to create a sequence of breathtaking views. In the

design proposal, a lot of consideration will be given to people's views in the landscape

4.4.6 Crime

Langley Park has high crime rates. Confusing circulation, easy access to through-traffic and the hidden areas enable some crime. However, it is important to mention that most criminals are not from Langley Park and the Langley Park residents have long been the victims of crimes. Thus, the way to solve the crime issues is to make the community space less attractive to outside criminals.

4.4.7 Isolation between People and Place

People cannot always be designed to use the space. Making the physical space reflect people's life has always been a hard question. This circumstance is obvious in this community. The designed historic mansion and community institutions are underused, while the narrow sidewalks, un-furnished bus stops, the unattractive apartment front grounds and the barren area next to the trash cans on the dead end road are popular areas for outdoor socialization between neighbors and friends. In this community, the physical space does not reflect the way people enjoy outdoor life. This design proposal will seek a way to tie together the physical and social layers. Major Problems are demonstrated in the following map. (fig. 35)

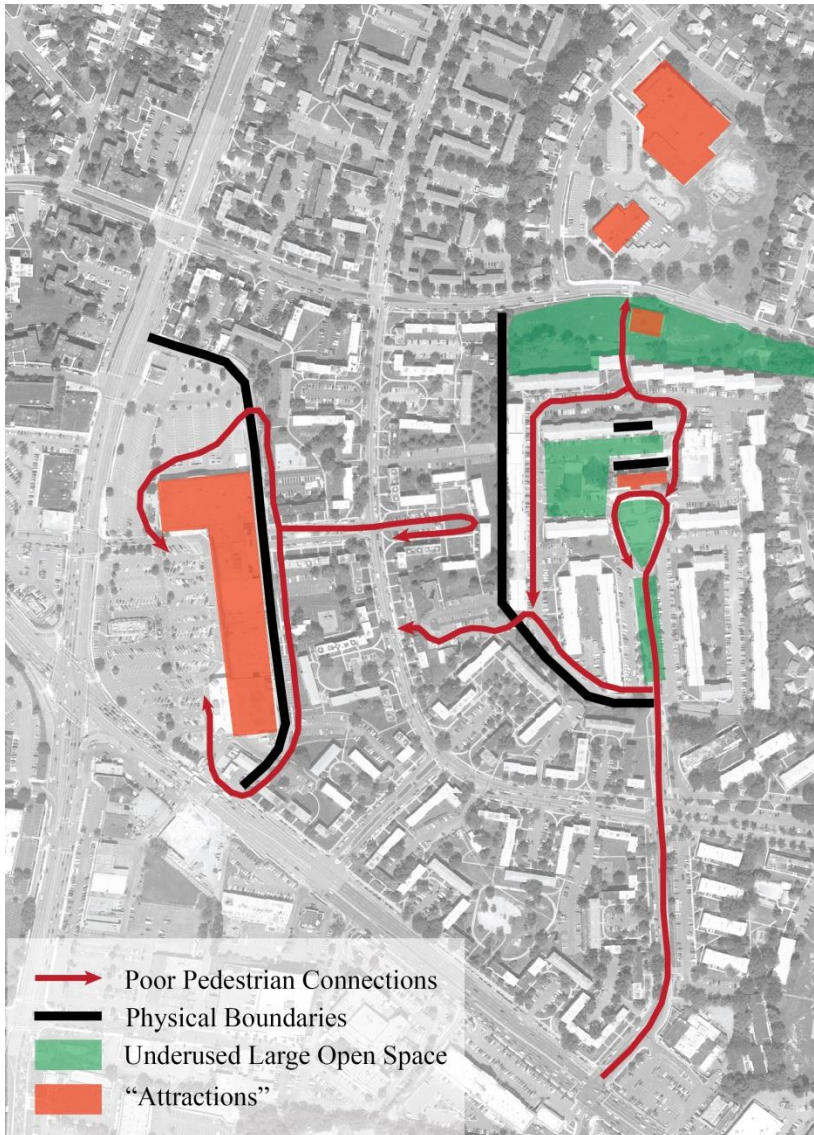


Figure 35 Map of the Community Problems, author

Chapter 5: Design Proposal

5.1 Objectives and Strategies

The overall design objective is to solve the existing problems of poor local connections, isolation from the shopping center, unrecognized historic resources and underused open space.

The specific design objectives are:

- To improve the local pedestrian connections
- To reinforce the sense of being the heart of the community for the historic mansion and other community institutions as well as the open space surrounding them
- To improve the relationship between the shopping center and the community behind it
- To improve the richness, accessibility and excitement of the existing open space

The following strategies drawn from literature will be applied in the design:

- To fit the site into its context
- To design on hierarchical spatial ranges
- To evoke people's curiosity to the place
- To reflect social life in physical environment design
- To reinforce the community identity

5.2 Design Proposal

One master plan and two focus area designs will be developed in order to solve the problems and at the same time test the design principles provided by the literature review. The master plan will emphasize exploring an ideal relationship between inside and outside of the community and between the different hierarchical spatial ranges within the community. The two focus area designs will emphasize using curiosity as a way to improve attachment, reflecting people's actual outdoor life in the physical space design and highlighting the local historic resources to improve the community identity.

5.2.1 Master Plan

A. Mini-beltway

The north end of Edwards Road will be moved further south in order to be connected with another local road on the west of New Hampshire Avenue. The new mini-beltway will tie together the four currently isolated shopping centers at Langley-Takoma Crossroads, improve the connection between the community and its surrounding neighborhoods, provide an alternative route to divert some of the local traffic from the busy collector roads, provide a linear space for local business development, and increase vehicle and pedestrian traffic flows on the currently underused service roads. (fig.36)

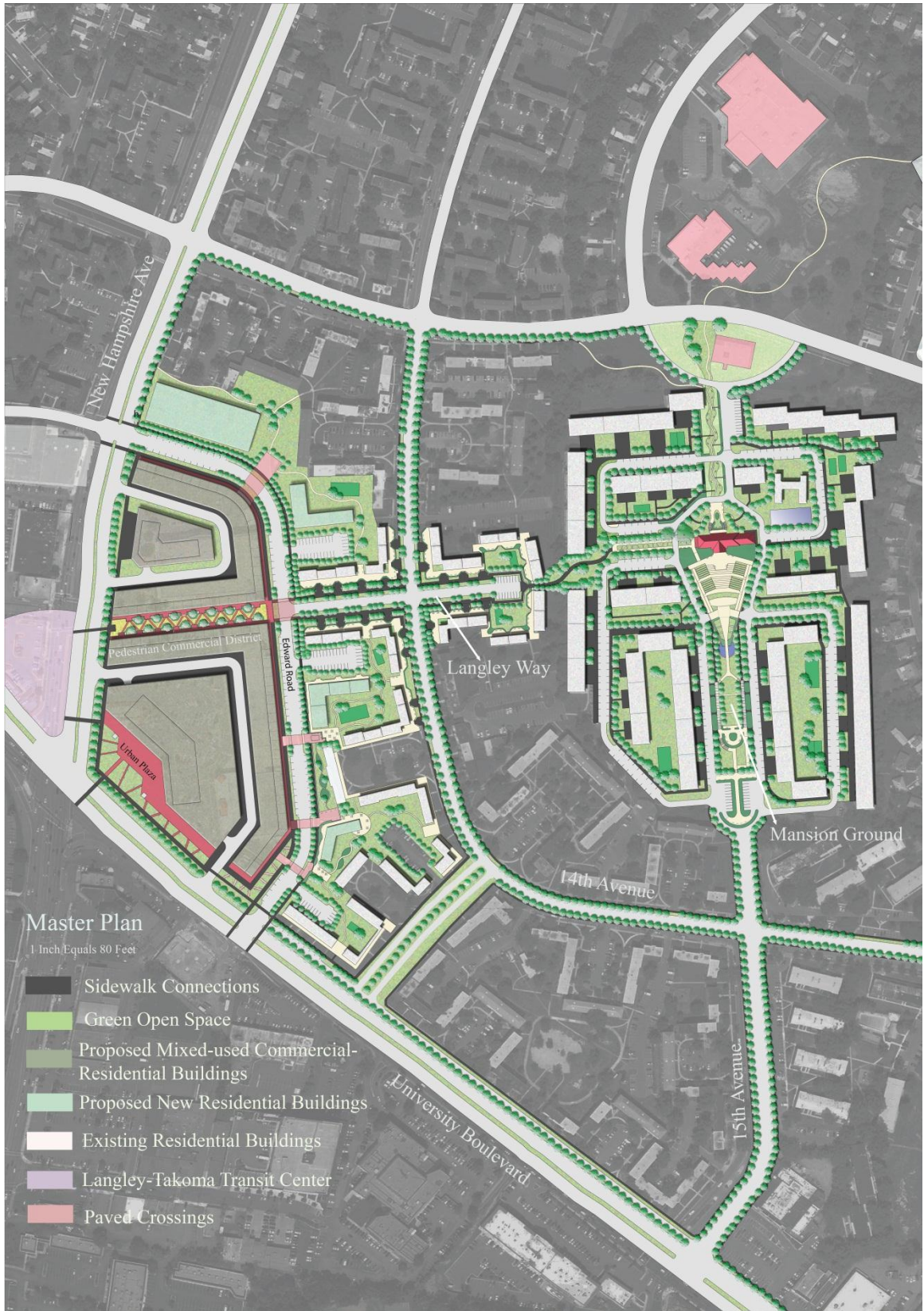


Figure 36 Master Plan, author

B. Small Business District

New buildings for small business will replace the current large shopping center and new large shopping centers will have underground parking garages that replace the current large parking lot next to University Boulevard and New Hampshire Avenue. The small business stores along Edwards Road will face the community and the large shopping centers will face the collector roads. The two kinds of businesses will share one service road which runs in between and is invisible from the community and the outside. Also, the Pedestrian Commercial District is proposed as an extension of the existing Langley Way which will connect the community with the outside. Each store will be 25 feet wide by 80 feet deep, thus providing a good human scale for a potentially desirable and active streetscape.

The small business stores which will face the community can better serve the local residents who currently live behind the shopping center and will change the current service road, Edwards Road, from a neglected ugly back street to a flourishing front street with streetscapes of human scale. The underground garage attached with the shopping center can save a lot of outdoor space which is currently occupied by the large parking lot. The new service road will serve the commercial buildings on both sides, which is a more efficient way to use infrastructure. Its invisibility makes the surrounding area much more aesthetically desirable. The Pedestrian Commercial District will not only provide the community with a convenient connection to the collector road, the front of the large shopping center, as well as the new Langley-Takoma Transit Center, but it will also become an enjoyable and easily accessible shopping area for both residents and outsiders.

C. Civic Core

The community institutions are not widely utilized by local residents. Among all the large open spaces along the civic axis, only the triangular meadow in front of the mansion and the playgrounds on the west of the mansion are active spots for outdoor life. Poor accessibility, poor visibility, lack of sense of destination are the major problems all of which together evoke safety concerns and make the community institutions as well as the surrounding outdoor space underused.

In the design proposal, two apartment buildings will be removed in order to establish the pedestrian and visual corridor along the civic axis which will make other institutional buildings visible and easily accessible. At the same time, all the open space surrounding the institutional buildings will be connected and treated as one entire linear green corridor along the axis. Also, the historic mansion and the ground surrounding it will be emphasized in order to evoke people's thoughts about the local history and to reinforce the place identity. The linear space in front of the mansion will become pedestrian exclusive. The open space on the west of the mansion will use the west façade of the mansion as the focus point. The north side of the mansion will have a better connection with surrounding buildings and landscape. The large open space south of Merrimac Road will become a large rain garden. Twelve families are currently living in the proposed removed buildings and they will be relocated to the new apartment towers on top of the large shopping centers in the commercial area.

D. New Pedestrian Connections

The proposed new connections along the civic axis and community axis will improve the accessibility of the commercial area and the civic core, increase the

availability of open space, connect the community with the new Langley-Takoma transit center and purple line station, encourage pedestrian use of the community space, take advantage of the nice view, and eventually improve the spatial relationship between inside and outside of the community. Three apartment buildings which are located on the two axes will be removed and eighteen families will be relocated to the new residential tower on top of the shopping centers.

The new connection itself may not result in a high pedestrian use. Only when it is combined with attractions along it will people see the reasons to walk and pedestrian movement will increase along the new connection. In this case, the community institutions and elaborately designed ground surrounding them are the attractions along the civic axis, and the proposed small business district and the connected civic core are the attractions along the community axis.

E. Vehicle Traffic

Vehicle traffic and especially through traffic are generally discouraged in the design proposal in order for the minimum disruption from outsiders and to retain the integrity of the sense of community. Edwards Road will be narrowed from a four lane road to a two lane road with sectioned on-street parking, which will provide opportunities for easy parking, and to encourage people to get out of their cars to enjoy the local small business and at the same time decrease through-traffic. Langley Way will be narrowed from a two lane road with a wide median and on-street parking on both sides, to a two lane road without median or on-street parking. This will discourage through-traffic, help create a neighborhood scale streetscape, and reduce the chances for a stranger to park in front of one's window. On-street parking will be

removed for the same reason. The highly unoccupied parking lot along Edwards Road will be replaced by open space to make a human scaled streetscape possible.

The only proposed new vehicle connection is between the historic mansion and the community center. Considering the length of the civic core, driveways are necessary to run along the edge so as to make the community institutions and civic open space highly approachable by local residents. It is a way to encourage the use of the civic space and prevent it from dying because of lack of automobile access.

F. Hierarchical Spatial Ranges

Region, community, block and home are the four scales which are considered in this design proposal for reinforcing people's place attachment.

Residents' attachment to the region will be improved through the proposed pedestrian connection with the regional shopping center, the new Langley-Takoma Transit Center, the new purple line station, and Northwest Branch Trail. Also, the revised mini-beltway will improve penetration to surrounding neighborhoods.

At the community scale, residents' attachment will be largely reinforced by strategies such as enlarging the civic space, rediscovering the identity of the historic mansion, improving the visibility and accessibility of the community institutions, creating local small business, improving the streetscape of Edwards Road and Langley Way, and limiting through traffic so as to maintain the community integrity.

In order to achieve people's attachment to the place in their daily life, two other scales which are often neglected in design practice need to be given consideration: home and block. As the increase of pedestrian usage of Langley Way is anticipated due to the proposed local connection on both sides, the attraction of the Pedestrian

Commercial District to outsiders and the improved streetscape, strategies will be used to maintain the privacy and sense of territory (i.e. attachment to home and block) for those who live on Langley Way. The apartment buildings will have a separated secondary circulation system from the busy sidewalks by green buffers in between and space for sitting and socialization is assigned to each apartment unit to encourage socialization among neighbors and reinforce people's home attachment.

Block attachment is achieved through the combination of the secondary sidewalks, the courtyard at the back of the buildings, and the walkways in the courtyard. Secondary sidewalks connecting with the courtyard serves as a buffer from the public street which will encourage people who live in surrounding buildings to use the currently barren courtyards while at the same time protect the area from the outside, thus maintain it as a secret and priority shared by a small group of residents. Also, the walkways in the courtyards provide alternative routes and shortcuts for surrounding residents to walk to the commercial area, which will largely add to the interest of walking and further improve people's attachment to home and block.

5.2.2 Mansion Ground Focus Area Design

The objective of the mansion ground design is to restore an evoking and inspiring civic corridor which will serve as the community heart for outdoor life. (fig.37, fig.38, fig.39) In order to achieve this objective, the design will test three strategies for improving place attachment provided by literature: to evoke people's curiosity to improve attachment, to reflect residents' actual outdoor life in the physical design, and to restore the recognition and identity of historic resources. These strategies are

reflected in the design and will function together to create a community heart.

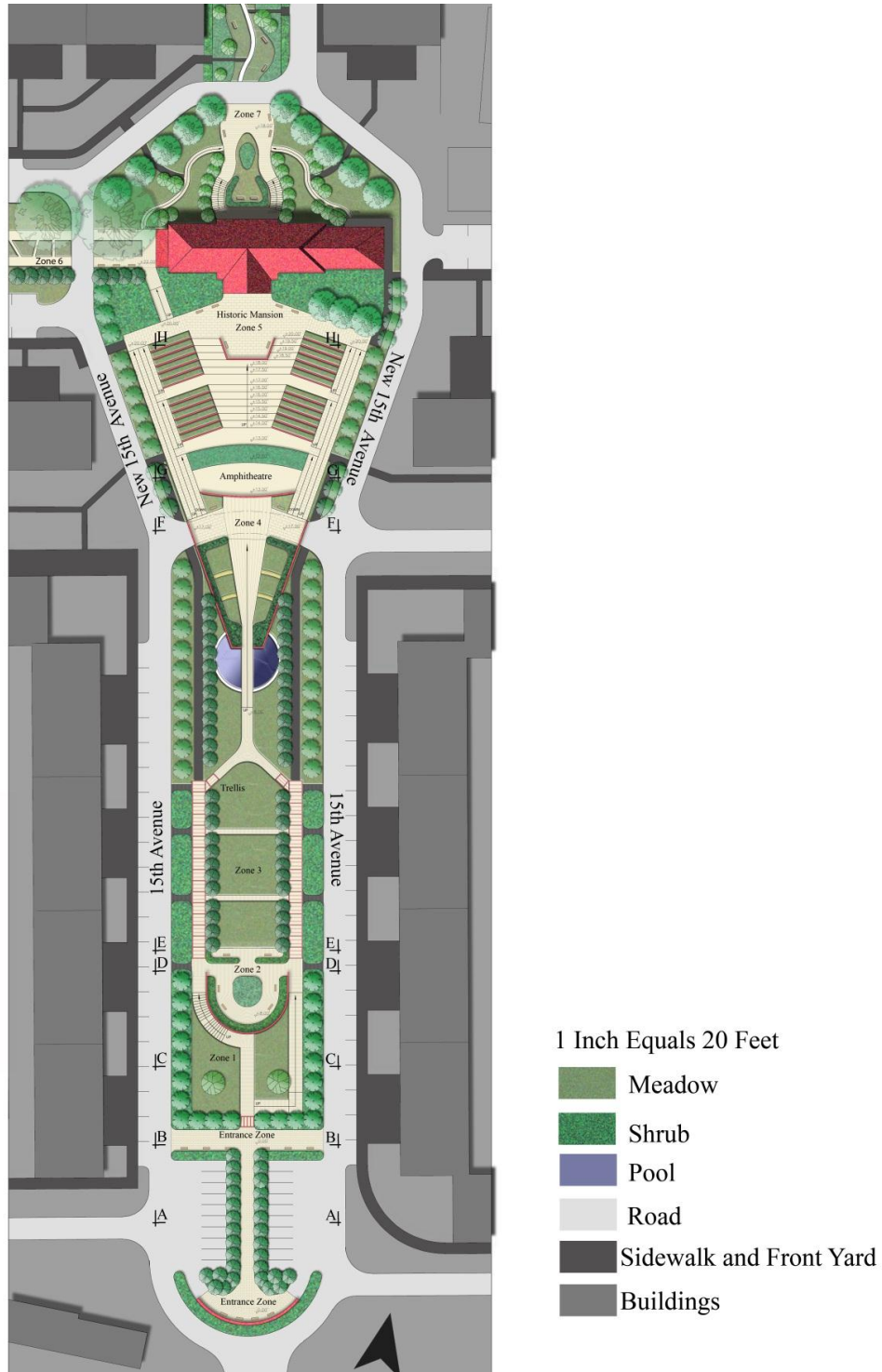


Figure 37 Mansion Ground Focus Area Plan, author

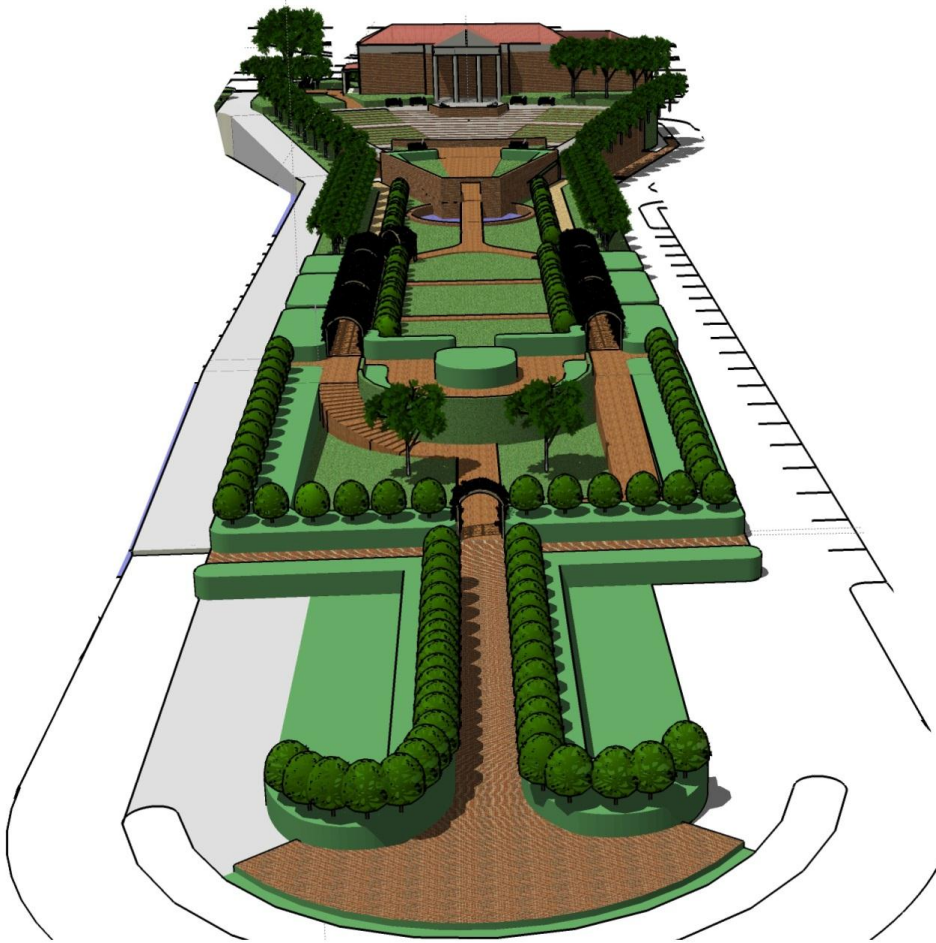


Figure 38 Bird's Eye View from the South, author

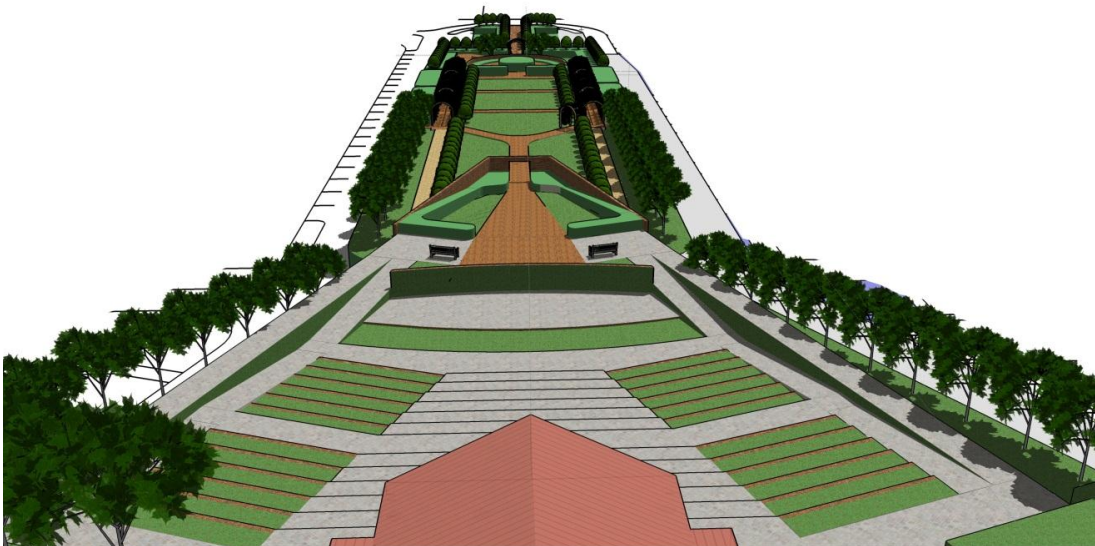


Figure 39 Bird's Eye View from the North, author

A. Proposed Outdoor Activities

The design attempts to make the physical space reflect people's outdoor life. Watching outdoor performances, celebrating festivals, playing games, having picnics, socializing with neighbors, sitting in the shade, sunbathing or watching other people are primary activities which are expected to happen on the new Mansion Ground according to the observation of how people are currently using the outdoor space. Different zones are assigned to accommodate these activities; some are specific to one activity and others are more flexible in different occasions.

B. Entrances and Circulation

The ground has multiple entrances which conveniently connect with surrounding apartment buildings and the local area. The south entrance will be mainly for vehicle users who park their cars in the nearby parking lot and pedestrians who walk down Fifteenth Avenue. The densely located entrances between the two long buildings connect the mansion ground with people's front yards making it an extension to socialize with neighbors. The west entrance connects the ground with the large commercial and residential areas on the west side. The north entrance connects the ground with other community institutions as well as the residential area to the north. The multiple entrances will provide ample chances for residents to walk into the ground and to enjoy this community asset which will raise a sense of pride and reinforce the relationship between people and place.

Surrounding sidewalks will be integrated into the pedestrian circulation on the Mansion Ground in order to provide a continuous walking experience with few interruptions. This continuous walking experience will largely encourage pedestrian

use of the community outdoor space thus providing chances for residents to enjoy and to understand their community. Also, each entrance is designed to be both a welcoming and farewell area. The flexible start and end point of the trip will provide different walking experiences for different choices of the routes. People's curiosity will be evoked by the multiple choices and will possibly return and develop a sense of attachment to the ground.

C. Different Zones

The Mansion Ground will be grouped into eight zones which are on different elevations, different degrees of openness, different views and are designed for different outdoor activities. The following is a narrative of the guest experience from south to north. Although this is only one of the possible route choices, it will provide an idea regarding how people's curiosity is evoked through the visit, how people will use the physical space, and how the identity of the historic mansion is highlighted as ways to improve people's attachment to the community.

Entrance Zone: The Entrance Zone is the arrival area for vehicle users and outside pedestrians. Hedges and trees are placed in a way to make the parking lot invisible from the inside and to frame the view towards the gate of the entrance. At the lowest elevation, the guest cannot see the historic mansion from the Entrance Zone. Benches are placed here for short rest and waiting. (fig. 40, fig. 41)

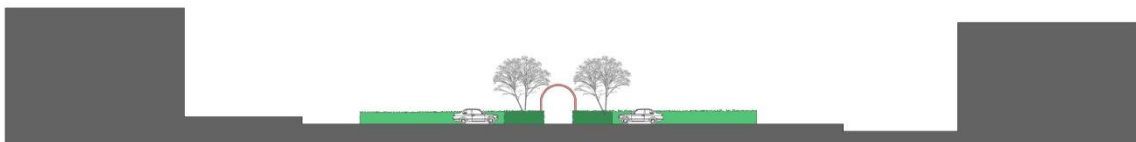


Figure 40 Section A-A, author

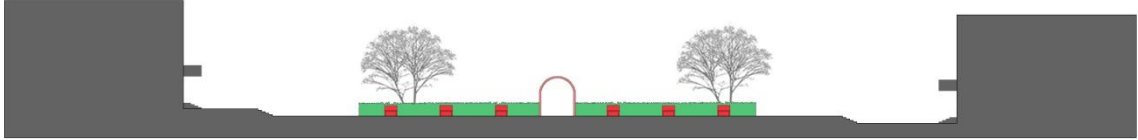


Figure 41 Section B-B, author

Zone One: The guest will get into Zone One from the Entrance Zone after passing the entrance gate. Zone One is an rectangular area enclosed by trees, hedges and a retaining wall in the front which together creates an intimate space. Still at the lowest elevation, the guest cannot see the mansion. The tension of the intimate space, together with the staircases and ramps around the curvilinear retaining wall will direct the guest to move forward for further exploration. Minimal benches will be placed in this area however long duration visits are not anticipated. Zone One is a transition zone. (fig. 42)

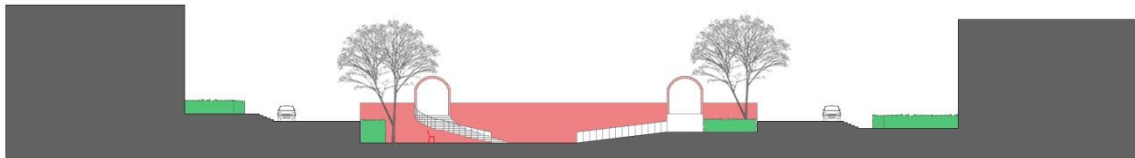


Figure 42 Section C-C, author

Zone Two: After climbing the staircase or ramp to elevation eight, this guest will arrive at Zone Two and will immediately face two choices. He can either walk into Zone Three by following the trellises covered with vines or turn right to explore more about Zone Two. On the south of Zone Two is a quiet sitting area surrounded by flower beds. With few disruptions by passers-by, it is an ideal spot to read a book or have a quiet delightful dialogue with a friend or neighbor. From the middle of the garden, the guest can look back to the south watching people walking into the entrance, with the background of the long, steep, straight and busy Fifteenth Avenue.

On the other side of the central flower bed is a narrow opening with the seven foot tall hedges. If passing by this opening by accident, he would look to the left and surprisingly find a long meadow in the front. After discovering this hidden view, he will very possibly walk through the opening and try to take a closer look. (fig. 43)

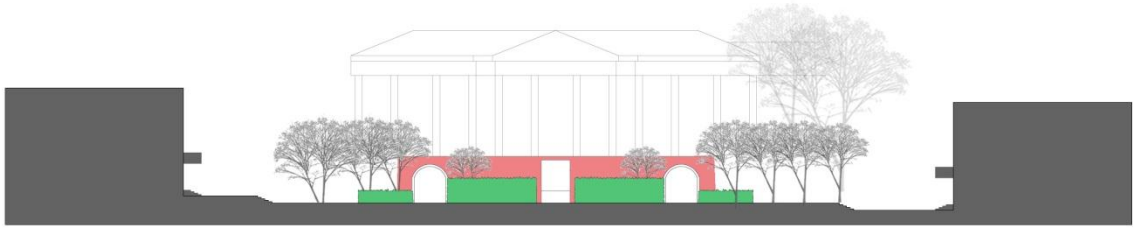


Figure 43 Section D-D, author

Zone Three: After he walks through that opening into another space, the vast view of Zone Three will be revealed to this guest even before he gets into the space. He will see the magnificent red mansion, its brick wall entrance, and a fountain in front of the entrance, all of which are at the end of the long meadow. If he likes watching people, he might find it interesting to watch others going in and out of the brick entrance. He could take his time, sit on the benches to watch the show, and no one can see him from the other side of the hedges. He could also walk onto the grass, lie down and enjoy the sunshine. If he is with one or two friends, they can have a picnic on the grass or play a frisbee game. What is also likely to happen is that he becomes curious about the beautiful mansion that he cannot wait to walk through the brick entrance to explore more. The walkway under the trellises will provide an enjoyable and relaxing walk to get there. During this walk, he would very possibly see local residents sitting on the benches and talking with neighbors. He could slow down, take a seat, and even join an interesting conversation. (fig. 44)

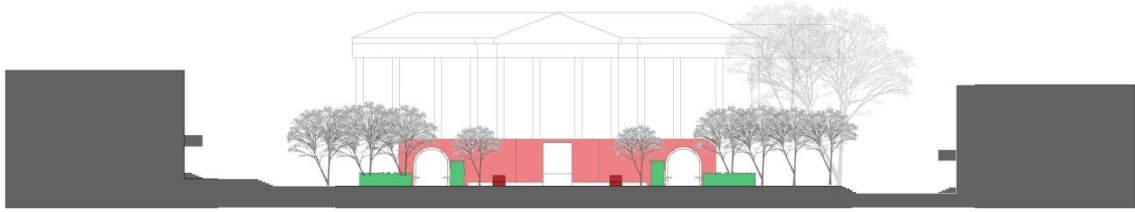


Figure 44 Section E-E, author

Zone Four: As this guest walks through the brick entrance, he will immediately find that it is not the real entrance for the mansion and what's behind this entrance is an outdoor room. However this discovery will not disappoint because almost at the same moment when he realizes it is not the building entrance, he will realize the outdoor room opens up towards the mansion and the uphill walkway directs him to the mansion. As he walks uphill and reaches elevation seventeen, he may think he finally gets there. However, as he walks closer to the short wall in front of him, a large amphitheater below his eye level will be revealed to him which is Benches are provided on elevation seventeen after he walks up the uphill walkway. He could sit down for a rest and enjoy the spectacular view of this newly discovered amphitheater with the historic mansion as the background. The sloping area of Zone Four is considered to be a transition zone with strong pedestrian movement and the flat area is a sitting area with great views of the mansion and amphitheater. (fig. 45)



Figure 45 Section F-F, author

Zone Five: From the flat area of Zone Four, this person is able to walk down the ramp to get into the amphitheater which is a nice place to sit enjoying the sunshine and openness when there are no performances. Or he can walk directly to the immediate front of the mansion. When he finally gets to the mansion, he would love to turn back, look towards the south and try to figure out which routes took him here. It would also be interesting to watch other people trying to figure out there way to get to the mansion and to observe the curiosity and excitement conveyed by their gestures or facial expressions. Several benches are provided right in front of the mansion's main entrance. He can sit down, take a deep breath, and look up observing the details of its columns and windows with the blue sky as a background. A sense of achievement will tie this person with the Mansion Ground. (fig. 46, fig. 47)



Figure 46 Section G-G, author

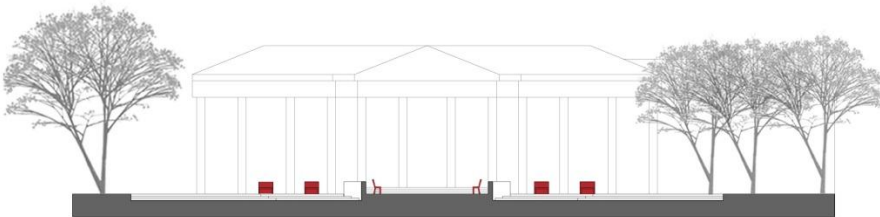


Figure 47 Section H-H, author

The following is a photo tour from Zone One to Zone Five. (fig. 48)

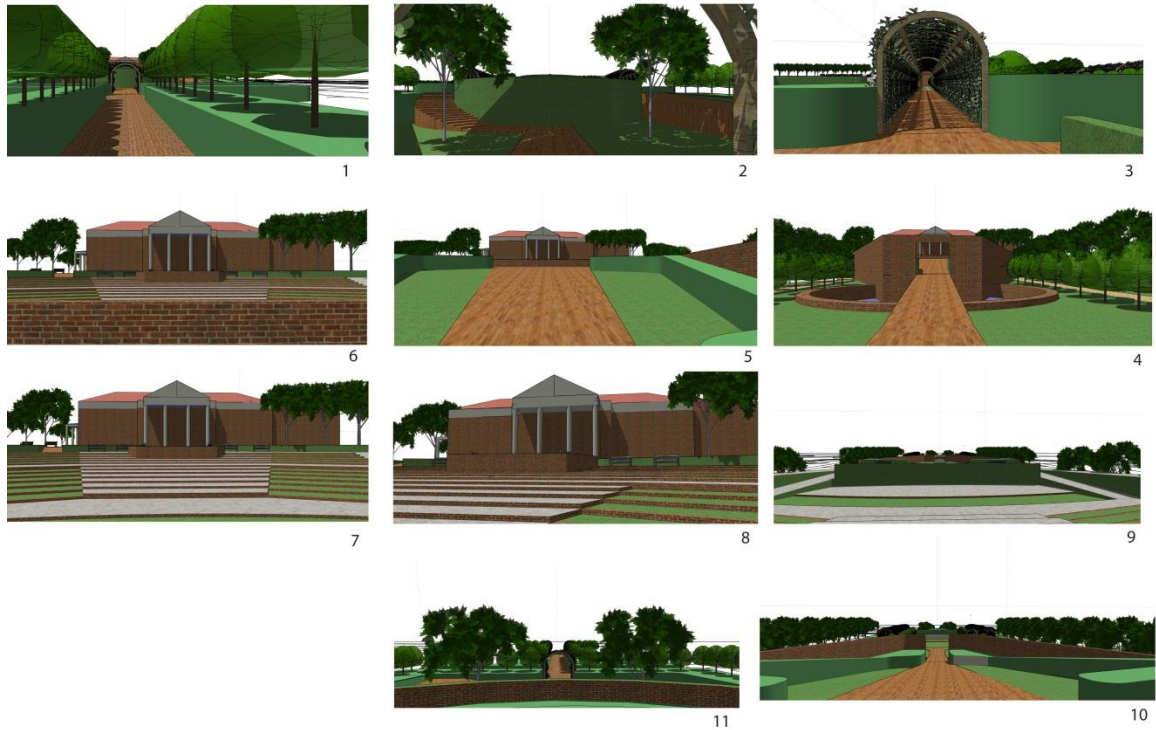


Figure 48 Photo Tour from Zone One to Zone Five, author

Zone Six: Zone Six is connected with Zone Five by a narrow path. It is a smaller rectangular open space on the west of the mansion with the mansion façade as the focal point. The small scale of this open space is determined by the smaller scale of the mansion’s west facade which makes this side a cozy area for socialization with neighbors. This area also connects the mansion with the large commercial and residential areas on the west. When people get into here from the busier west area, what will welcome them is a small traditional plaza which will lead them to a magnificent mansion and the spectacular views of its front. This area is a transition in terms of scales between the west and east part of the community. (fig. 49)



Figure 49 West Side of the Mansion, author

Zone Seven: Zone Seven is the area at the back of the mansion. It is connected with Zone Six through informal narrow paths and the appearance of itself is much more informal and natural. The existing large tall concrete platform is replaced by narrow curvilinear staircases and elongated grass terraces, which will largely improve the area between the mansion and the residential area behind it (fig. 50). Zone Seven is connected with the linear green space on the north, which will tie the mansion and other community institutions together as well as the open space surrounding them.



Figure 50 North Side of the Mansion, author

The following is a long section cutting through Zone One to Zone Seven. (fig. 51)

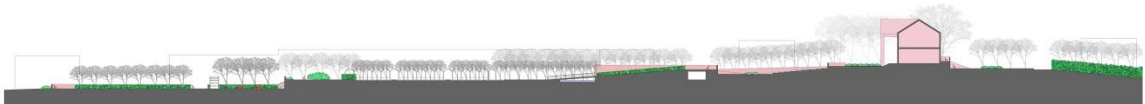


Figure 51 Long Section through Mansion Ground, author

D. Identity of the Mansion

The residents will gradually recognize the mansion as part of the community identity as walking through the Mansion Ground. In the walking experience, the constantly changing view of the mansion is a show which will draw attention to the architecture and evoke thoughts about the local history as well as the community uniqueness. Improved connections between the mansion ground and its surrounding neighborhood add to the importance of this civic core in people's daily outdoor life, This is another way to reinforce people's identity with the mansion and reinforce the relationship between people and their place.

5.2.2 Pedestrian Commercial District Focus Area Design

The design objective of the pedestrian commercial district is to create a lively pedestrian environment for local small businesses which will serve the community, attract outside customers, create inspiring streetscape, showcase stormwater management, and encourage rich shopping experience including socialization. Such an area will vitalize the community identity, reflect people's real outdoor life, and evoke their curiosity. (fig. 52, fig. 53)

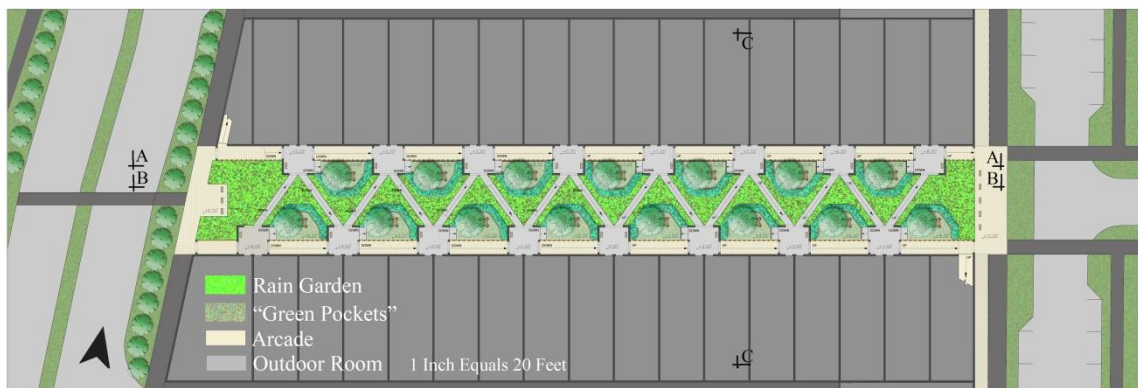


Figure 52 Pedestrian Commercial District Focus Area Design



Figure 53 Bird's Eye View from the Community Side, author

A. To Serve the Community and Attract Outside Customers

The pedestrian commercial district is a connection as well as an attraction, which will make it a highly used connection and easily accessible attraction for both the community and outside customers.

As shown in the plan, the pedestrian commercial district connects the community with New Hampshire Avenue, Langley-Takoma Transit Center and the new Purple Line Stations. Its east entrance on the community side will provide easy access for local residents and its west entrance is anticipated to attract outside customers because its convenient connection with surrounding shopping centers and sidewalks.

Strategies will be used to encourage local investors with multicultural and multiethnic backgrounds in order to generate unique businesses and atmospheres which can properly reflect the community culture and be part of the community identity. Residents are anticipated to become more attached to such a commercial district where they recall fond memories and celebrate true identities. Outsiders would be intrigued by the exotic atmosphere and become curious about the surrounding community.

For above reasons, more residents are anticipated to take this attractive route as part of their daily commute between home and the new Langley-Takoma Transit Center/Purple Line Station. This will on a daily basis encourage the use of mass transportation while reducing the use of cars. With a large number of potential customers walking by the shops daily, the proposed local small business will have a greater chance for success. Also, the increased number of pedestrians is likely to reduce current crime rates in the community.

B. Architecture, Green Space and Rain Gardens

The lowest area of this district is located at the center with elevation changes of six feet on the west and ten feet on the east. This provides a topographic amenity for spectacular views in both directions, the engaging rhythm of the architecture facades, and the natural slopes for stormwater runoff.

The architecture façade is an important element of the streetscape. Especially in this case, when the indoor and outdoor space are considered as a whole experience, the rhythm of the architecture will have critical impact on the rhythm of the streetscape as well as the rich shopping experience. (fig. 54, fig. 55)



Figure 54 Section A-A, author



Figure 55 Section B-B, author

The pedestrian commercial district has two four-story buildings located on both sides of the central open space. For both buildings, the first and second floors are for local small businesses and the third and fourth floors are for apartments (fig. 56). The first floor of the building will be built with the existing topography and all the floors above will be level, which will create a rhythmic architecture façade with the height of the first floor varying from 9 feet to 19 feet.



Figure 56 Section C-C, author

For the commercial portion, the north building has sixteen shops on each floor and the south building has seventeen shops on each floor. Each shop is 25 feet wide by 80 feet deep. On the first floor on both sides, the doors of every other neighboring shops are grouped together and share one common outdoor room which is a flat area serving as a transition between the indoor and outdoor space. Also, there is an eight foot wide arcade with ramps with a five percent slope connecting each outdoor room. On the second floor for both sides of the green space, front doors of the shops are also grouped and there is a wide balcony in front of each group overlooking the green space on the bottom level. All the doors are connected through the outdoor path. Arches commonly seen in Hispanic architecture will be the dominant feature of the buildings and are included in the façades of the outdoor rooms, the doors of the

shops, and along the arcade, which articulates the established rhythm. (fig. 57, fig. 58)

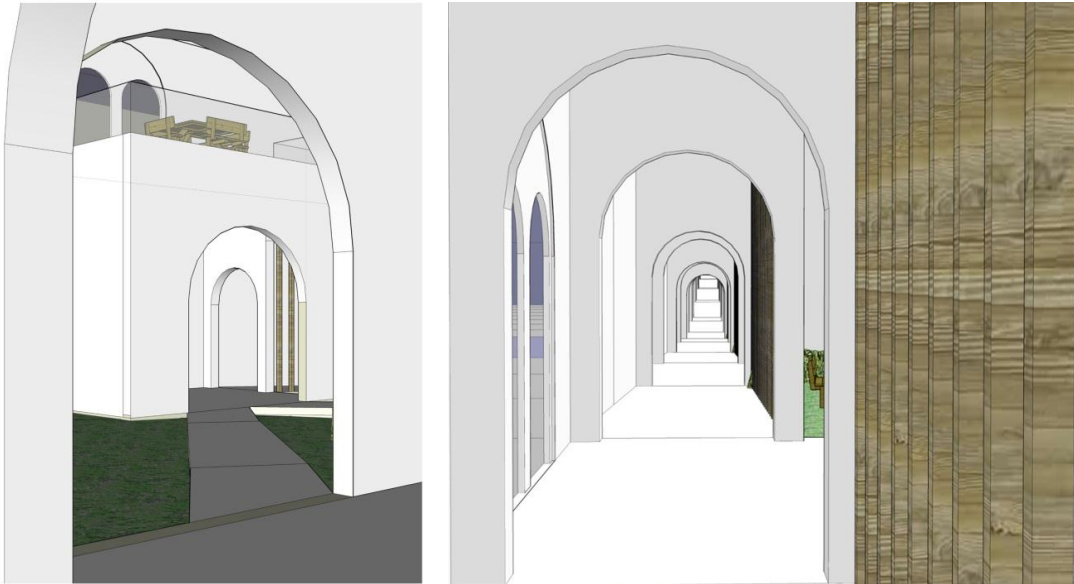


Figure 57 View along the Walkway Figure 58 View along the Arcade, author

The green space is divided by the walkways into sixteen smaller sections. (fig. 59, fig. 60) Connected with each outdoor room there is a green pocket covered with grass and trees. Picnic tables are placed for outdoor dining, socializing or resting. Most of the green pockets have only one entrance from the nearby outdoor room, which prevents possible disruptions by passers-by. Four foot tall hedges enclose the space to prevent the user from being fully seen when sitting while still provide enough visibility if the person stands up. The green pocket is separated from the arcade by trellises covered with vines to prevent the user from being fully seen while at the same time evoking the curiosity of those who are trying to see into the other side. All the above strategies are used in order to provide privacy, maintain safety and evoke curiosity at the same time.



Figure 59 The Central Green Space Viewed from the Second Floor Balcony, author



Figure 60 The Central Green Space Viewed from the West Entrance, author

Rain gardens are located all along the walkways providing a continuous experience to learn about stormwater management. These rain gardens will be placed on the natural slope, with the lowest area in the middle to collect water

C. Rich Shopping Experience and Socialization

Multiple routes, wheelchair accessibility and diverse proposed activities will provide rich shopping experience which reflects people's outdoor life and at the same time evokes curiosity.

There are basically two route systems. The first system is the arcade in front of each building. By using the arcade, a person can directly go from one end of the district to another without turns or interruption. The second system is the sequence of walkways passing through the green space which connects all the outdoor room as well as shop doors. By taking the walkways a person would not immediately get from one end to another and instead will be brought into the green space, have chances to visit all the shops on both sides, and fully enjoy a constant transition between indoor and outdoor space (fig. 61). What makes the route choice more diverse is that the two systems are intertwined. They are connected with each other in the outdoor room, which means a person has a third choice of a combination of system one and system two. All the choices will make each visit a different shopping experience which will evoke people's curiosity and further develop attachment to this place.



Figure 61 Walkway Connecting Indoor and Outdoor Space, author

The slopes of the arcade and the walkways are both below eight percent, which makes the entire district wheelchair accessible. Convenient seating areas are assigned in each outdoor room, which gives the wheelchair users adequate opportunities to rest. Short ramps connecting the outdoor rooms with the green pockets are further seclusions which are also universally accessible. The pedestrian commercial district is wheelchair accessible as well as wheelchair enjoyable.

Activities proposed in this district include shopping, window shopping, resting, outdoor dining, socializing and learning. Indoor shopping here is a continuous experience tied together by the arcades or the walkways. By taking the walkways, a person would not miss a single shop on the first floor. Benches are placed in each outdoor room as well. The green pockets, balconies and the large open area on the east end of the second floor are places for outdoor dining, socializing or can simply be more private spaces. The rain gardens along the walkways provide a continuous learning experience for stormwater management. Also, because every other shop door is grouped to its neighbor, large pieces of the shop facades are reserved for window shopping which will add richness to the entire shopping experience.

Socialization was observed to be a very important outdoor activity associated with the existing shopping centers near the community. People frequently run into acquaintances in front of a shop, under the arcade or on the parking lot. This phenomenon was taken into consideration for the design proposal. The benches in the outdoor rooms provide people with locations for short conversation after shopping. A more private conversation can happen in the green pockets connected with the outdoor rooms. The second floor balconies will provide space for more socialization.

All the socialization areas are located in a way that a certain amount of viewing between will happen which will create a communicative and engaging atmosphere, while at the same time ensuring surveillance to prevent crimes. (fig. 62)



Figure 62 Socialization Areas, author

Chapter 6: Design Reflections

6.1 How Strategies from Literature Are Interpreted in The Design Proposal

6.1.1 To Fit the Site into Its Context

There are several aspects of the design which are efforts to create a strong relationship between the site and its context. First, the future Langley-Takoma Transit Center and Purple Line Station on the west side of New Hampshire Avenue is taken into consideration which ensures that any proposal on the site will coexist well with its changing surroundings and at the same time take advantage of these changes. Second, new pedestrian connections are proposed between Langley-Takoma Transit Center, the commercial area, the civic core and residential areas, which will largely improve connectivity between the community and beyond. Third, the proposed mini-beltway connects the community with surrounding neighborhoods and it will promote potential interactions between different neighborhoods as well as smooth local traffic. Fourth, the proposed small business district will serve as a buffer as well as a connection between the large scaled shopping center and the smaller scaled residential landscape, which will provide a smooth transition between inside and outside of the community. Sixth, the civic core will become larger and more accessible which will serve a larger population living in the surrounding area

6.1.2 To Design at Different Spatial Ranges

The idea of improving people's attachment to the community by improving their attachment to different spatial ranges is applied in the following ways. First, separate circulation systems and small resting areas are proposed along Langley Way to ensure the privacy and sense of territory for residents in face of the increasing pedestrian use

of the major sidewalks. Here emphasis is given to attachment to the home scale. Second, the separation between the back courtyard and the public street is a way to maintain people's attachment to the block scale. Third, the focus are design of the civic core open space is an effort to improve people's attachment to the community scale. Fourth, the pedestrian commercial district draws both residents and outsiders thus will be a regional attraction.

6.1.3 To Evoke People's Curiosity

People's curiosities are evoked in several aspects of the design proposal. First, the intimate pedestrian commercial district with an exotic atmosphere will make outsiders curious. In the pedestrian district design, people are able to see through the garden while they are not able to walk through it will also evoke their curiosity motivating them to move forward. And the changing views associated with the constant turns along the central walkways will further add to the degree of curiosity in the walking experience. Second, the view changes along the axis on the mansion ground will make the visit like watching a show with different scenes, which will constantly make people curious about what is ahead and motivate them to move forward.

6.1.4 To Reflect Social Life in Physical Environment Design

Social and physical layers are integrated in three ways in this design. First, how people currently use the outdoor space is taken into consideration and applied to the design. Large paved areas in front of many apartment buildings are designed for socialization between neighbors which was observed as an important activity in the area around the front door. The green pockets and balconies in the pedestrian commercial district are designed for socialization and outdoor dining which are

activities frequently seen in front of the current shopping center. Ball fields are located in the back courtyards to meet the current need for sports ground. Second, the design proposal associates specific activities with each area as stated in the previous chapter. At the same time, areas with multiple functions such as Zone Three of the mansion ground are proposed. Third, people's experience in the space are emphasized, which illustrates how people use the space, i.e. how the social layer and physical layer are integrated to form a real lively community. The description of a person's experience while walking on the proposed mansion ground is an example to demonstrate this consideration.

6.1.5 To Reinforce Community Identity

The community identity is implied in its history, its people and the unique ways how people use the place. Design strategies are used in the mansion ground, the pedestrian commercial district and the residential landscape design to highlight the community identity. The historic mansion which ties the community with its history is a focal point on the mansion ground and the scenes on the sequence always have its presence as the central role, which will draw a lot attention to the architecture itself and evoke people's thoughts about the local history and place identity. In the pedestrian commercial district, the international business, the exotic atmosphere, the architecture style, the rain garden demonstration, the people who are socializing and eating outside will illustrate another aspect of the community identity which is rooted in its current residents with international backgrounds. In the residential area, the large paved space in front of each apartment building will be occupied by its residents

who will use it as a place for socialization or simply enjoying the outdoor life, which is a unique way of outdoor life identified in this community.

6.2 How the Above Strategies Help Meet Design Objectives

6.2.1 To Improve Local Pedestrian Connections

Strategies Applied: to fit the site into its context; to evoke people's curiosity; to reflect social life in physical environment design

The success of the local pedestrian connections will base on three strategies. First, it is considered as part of the regional connection and it will take advantage of the context. The proposed east-west pedestrian connection not only runs through different residential areas within this community but also connects the community with the future Langley-Takoma Transit Center and Purple Line Station which will serve the metropolitan area. The proposed north-south pedestrian connection not only connects the community institutions but also create a gateway to get to Northwest Branch Trail runs a long distance in this region. Connections with these important regional features such as the transit center and the trail will add to the chances of being fully used for the proposed local pedestrian connection. Second, people's curiosities are constantly evoked along both east-west and north-south connections: the rolling hills provide spectacular views and view changes along the axes, the various architecture and landscape scales in different areas imply a rhythmic walking experience, the visibility of community institutions provides definite destination: all of the above aspects will motivate movement along the connections. Third, different areas along the connections are assigned different kinds of activities such as shopping, socializing,

playing ball games, enjoying views, picnicking, watching outdoor performances, jogging, which will add to the livelihood of the entire pedestrian connection system.

6.2.2 To Reinforce the Sense of Community Heart for the Community Institutions as well as the Large Open Space along the Civic Axis

Strategies Applied: To design on hierarchical spatial ranges; to evoke people's curiosity; to reflect social life in physical environment design, to reinforce the community identity

The sense of community heart is reinforced by four strategies. First, the connection with the get-together areas in front of the apartment buildings makes the mansion ground an extension of one's living room. The smooth transition between the two spatial ranges will encourage people to make the mansion ground the heart of his daily outdoor life. Second, the view changes along the axis of the mansion ground will make people curious about what is going to be shown on the sequence thus provide a strong motivation to explore the place and become more attached to the civic core. And the visibility of the community institutions will draw more attention and evoke people's curiosity, which will largely increase the chances for residents to walk into the buildings and enjoy the community facilities. Third, specific activities such as enjoying the view, playing Frisbee, picnicking, watching performances, socializing are assigned to different zones of the mansion ground which will very likely make it the heart of the community outdoor life. Fourth, the historic mansion as a resource is the focal points of all the view changes which will highlight the architecture as a community identity. The recognition of this identity will make the building and the open space surrounding it the psychological heart for local residents.

6.2.3 To Improve the Relationship between the Shopping Center and the Community behind it

Strategies Applied: to fit the site into its context; to evoke people's curiosity; to reflect the social life in physical environment design; to reinforce the community identity

A positive relationship between the shopping center and the community is achieved by four strategies. First, the small business district is a transition between the large shopping center and the residential landscape in terms of scale. And it connects the inside and outside of the community. Second, the view of the gardens in the middle of the pedestrian commercial district as well as the constantly changing experience while walking along the walkways will evoke people's curiosity and attract outsiders, which will make this district a gateway of the community. Third, the space for shopping, window shopping, socializing, and outdoor dining will be used by both residents and outside customers and it will create chances of conversation and interaction thus creating a strong sense of cross cultural friendship. Fourth, the central landscape, the stylish architecture style, the unique local small businesses and most importantly, the way how people use the space will illustrate the community identity to the outside world and raise the residents' sense of pride in their community.

6.2.4 To Improve the Richness, Accessibility and Excitement of the Existing Open Space

Strategies Applied: to fit the site into its context; to design on hierarchical spatial ranges; to evoke people's curiosity; to reflect social life in physical environment design.

The Civic Core: Accessibility is achieved through its convenient connection with Fifteenth avenue which meets University Boulevard on the south. Its immediate connection with the context gives the open space the potential to serve a larger area. The richness of the open space will be achieved through the multiple choices of activities in different zones. And the excitement is associated with the curiosity of the place evoked by view as well as experience changes along the axis.

The Back Courtyards: The access of a back courtyard is to an extent limited to residents who live in the buildings surrounding the courtyard. For these residents, they can take the secondary sidewalk system in front of the building to approach the courtyard. This is a reflection of how the idea of hierarchical spatial ranges is applied to a residential landscape. The sense of richness and excitement of the courtyard open space will come from the shared secret by a small group of residents that there is spacious open garden, ball fields and a mysterious route beyond what outsiders can tell from the front of the building. The unobvious visibility of the courtyard will strongly evoke outsiders' curiosity about the richness of the community although they are unlikely to pass by people's front windows, front doors and a series of get-together space to get into these back courtyards because Their presence is easily observed.

Chapter 7: Conclusion

The reviewed literature provides rich meanings of place attachment and these meanings inspired several strategies for community design. Through the application of these strategies in the redesign of Langley Park, Maryland, the author proposed an alternative design approach in community design. The design outcome proved that by taking advantage of the strategies inspired by the literature of place attachment, the design objective of addressing existing problems was met. In this case, research plays an important role in the success of the redesign and a bridge between theory and design practice was successfully built.

The proposed five design strategies can be applied in other community designs and they can be interpreted in various ways according to specific site condition. As in the redesign of Langley Park, the rich meaning of each strategy is rooted in the community's unique characteristics thus being effectively applied in this community design project. When applying these strategies in other cases, it is important to consider the context and maintain the richness of their meanings.

Although the author was trying to conduct the literature review as exclusively as possible, it is impossible to come up with an exclusive list of strategies. Designers can always add new elements to it. And the most important notion from this thesis is that research can be a source of inspiration for design practice and the strategies drawn from the literature can be effectively applied and lead to a successful design.

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