**ABSTRACT** 

Title of Thesis: WEAVING PLACE AND OBJECT:

A NEW MARTIN LUTHER KING

MEMORIAL LIBRARY

John Jewett Himmelheber Master of Architecture, 2005 Certificate in Urban Design, 2005

Thesis Directed By: Professor Roger Lewis, School of Architecture

The new Washington D.C. Convention Center has proven to be a catalyst for revitalization and improvement in Downtown D.C. The existing older Convention Center site is impeding further development along the New York Avenue corridor. This thesis proposes the construction of a dynamic mixed-use community providing varied retail options and increased housing opportunities at all income levels. A prominent new downtown landmark will also be created-a new Martin Luther King Memorial Library to replace the existing library, an outdated structure located two blocks south of the site.

This thesis also explores the symbiotic relationship between object buildings and spaces-the relationship between building and place. The mixing of uses is investigated at multiple scales, working from neighborhood scale to the building scale. The idea of procession between objects and spaces is also explored-linking the object building-the new convention center to the object space, the National Mall, via a dynamic and intuitive path. The new MLK Library will educate and entertain District residents and visitors at all hours-creating a place of public interaction and exhibition-in addition, the increased concentration of housing will aid in the realization of the Downtown we envision.

# WEAVING PLACE AND OBJECT: A NEW MARTIN LUTHER KING COMMUNITY LIBRARY

By

John Jewett Himmelheber

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 Architecture

2005

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#### CHAPTER I

# **Building as Generator in Downtown D.C.**

The Downtown area of Washington D.C. has continually undergone revitalization efforts. In recent years, the Downtown area has experienced a renaissance in activity, with the MCI Center, Gallery Place and the new Convention Center creating an environment of public buildings (fig 1). The proponents of these projects hoped the increased pedestrian activity in this area of the city would evolve into more retail energy and residential options. The results have been mixed, with many new retail establishments coming to the area, but the housing market, especially affordable housing, has progressed at a slower pace.

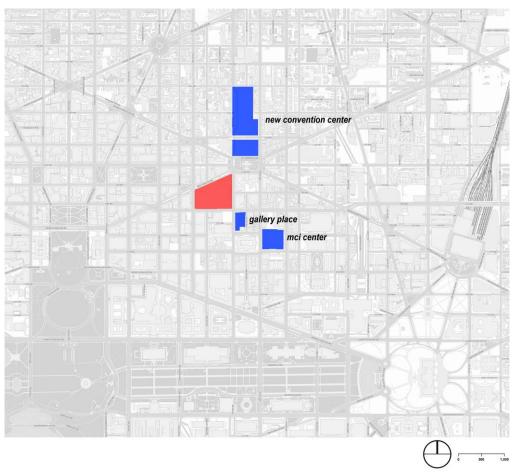


Figure 1-Diagram showing the relationship between the site, the new convention center, the mci center, and gallery place

# Preserving History: The Martin Luther King Jr. Memorial Library

The existing Martin Luther King Memorial Library is located at 901 G street, 2 blocks south of the site (fig 2). The MLK Library was designed by Mies van der Rohe, and is the only building in the District designed by one of the big three Modern architects: Le Corbusier, Mies and Wright. The building also stands as the only Miesian Library in the world. The building was opened in 1972, and is the only monument to Dr. King in the District for the last 30 years<sup>1</sup>.



Figure 2-Image showing existing Martin Luther King Memorial Library at 9<sup>th</sup> street and G Place. The façade shows the traditional Miesian detailing (www.dclibrary.org)

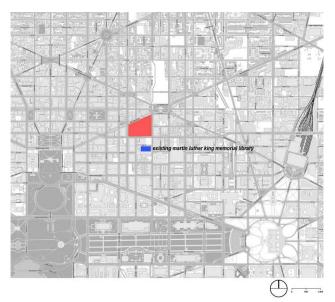


Figure 3-Diagram showing the adjacency relationship between the site and the existing MLK Memorial Library

As a result of the District spending less than a third of the national average on library building maintenance, the MLK Library has fallen into great disrepair. The trademark Miesian furniture has been replaced, the HVAC system is unable to heat or cool the entire building, the windows and lighting systems are not energy efficient, and there is outdated program such as obsolete card catalogs and the lack of current technological features, such as computers<sup>2</sup>. The building has no current historic status, and the scope of the necessary renovations would cost half as much as a new building<sup>3</sup>. The City is currently in the planning stages to redesign four branch libraries in the District, the Anacostia and Benning libraries across the Anacostia, the Tenly-Friendship branch in Northwest, and the Watha T. Daniel branch in the Shaw neighborhood. Ultimately, all 27 library branches will be restored, most with extensive repairs, and some being torn down and rebuilt<sup>4</sup>.

The MLK Library served as a cultural landmark in Downtown D.C. It was crucial to the community in its time, but with increased technological advances in library design, the MLK Library has lost its functionality as a public amenity. The MLK Library will be replaced by an updated library on the old convention center site. The focal point of the existing library, the large mural depicting Dr. King's lifetime dedication to equal rights, will be moved to the new building and placed in a prominent location, in an effort to remember the past. Existing volumes will also be relocated to the new branch, and updated services, including job training, modern research techniques and current library technology will be incorporated with existing library programs to make an evolutionary transition to the new building, creating positive growth in the community.

The existing Martin Luther King Memorial Library will not be torn down, rather completely renovated into an office building, to serve as the regional headquarters of historic preservation. The building is much to small, fragile and important to become a second generation library. The technological needs of the community must be housed in a separate, more modern, structure on a prominent site. The second life of the Miesian building as a center for the study and education of historic preservation will be a fitting tribute to the Modern architects only building in the District.

#### **Hybrid Site**

In his work <u>Hybrid Buildings</u>, Joseph Fenton describes the history and programmatic relationships of hybrid buildings. These structures are known today as mixed-use buildings, incorporating several disparate functions into one building envelope. Fenton argues the hybrid type was developed in response to metropolitan site pressures and escalating land values<sup>5</sup>. Fenton breaks the hybrid type into three categories: fabric, graft and monolith. Fabric hybrids relate most to the city; adhering to lot lines and having an internal disposition of differing functions; graft hybrids most clearly display the differing programmatic functions in their massing, based primarily on the limits of the site; and monolith hybrids are products of urbanization on a monumental scale--concentrating an encyclopedia of urban uses on a single block, usually with no relation to the existing urban environment.

The site of this thesis, the existing convention center site, has to be designed as a hybrid site: made up of differing types of hybrid buildings. The differing

programmatic elements, mixed-income housing, varying scales of retail, parking and service, and the Martin Luther King Library need to be designed as a cohesive unit, respecting the other programmatic elements, and responding to the historic L'Enfant grid. The project will relate to the surrounding context of the site more than the existing convention center, creating a porous pedestrian experience and quality public spaces.

# CHAPTER II

# **History**

The first plan for the capital of the United States was created by Frenchman Pierre L'Enfant in 1791. L'Enfant was brought to the states by George Washington, to create a topographic survey of the area, and to enhance a boundary survey simultaneously conducted by Andrew Ellicott<sup>6</sup> (fig 4).

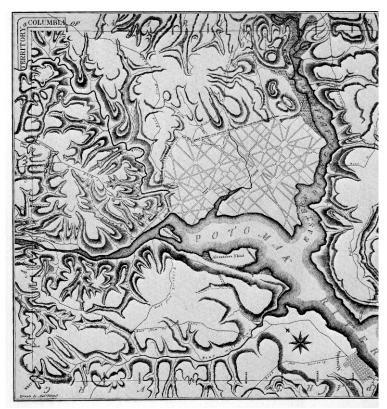


Figure 4-Andrew Ellicott's survey of the area, with a diagrammatic urban plan (Washington Architecture)

Instead of stopping at the survey, L'Enfant proposed an entire capital city plan to Washington. The plan was evident of L'Enfant's French schooling, a grid overlaid with diagonal avenues with circles and squares as focal points (fig 5).

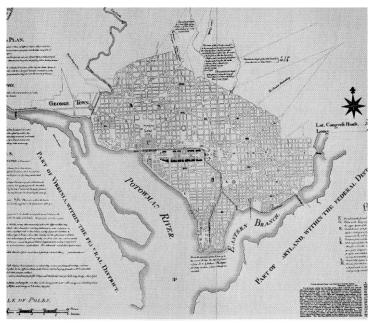
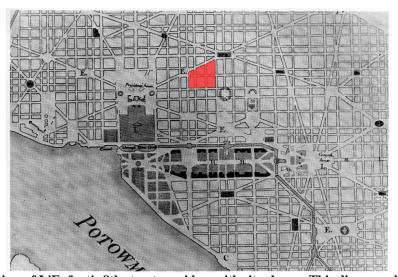


Figure 5-Pierre L'Enfant's plan for Federal City. The drawing has a close semblance to the reality of Washington D.C. (Washington Architecture)



 $Figure\ 6-Enlarged\ view\ of\ L'Enfant's\ 8th\ street\ corridor,\ with\ site\ shown.\ This\ diagram\ shows\ the\ relationship\ to\ the\ Mall\ and\ the\ Presidents'\ House\ (Washington\ Architecture)$ 

In 1800, the capital of the United States was officially moved from Philadelphia to its current location<sup>7</sup>. Since then, the capital has continued to grow and prosper. Federal institutions, cultural establishments, varied housing options and civic structures stand side by side to create a destination, an anchor for the nation. From the 19<sup>th</sup> to the twentieth and

early twenty-first centuries, the fabric of Washington D.C. has continued to grow, creating a rich and diverse center for the United States.

In 1973, the city of Washington D.C. conducted a feasibility study to determine the placement of the Eisenhower Civic Center. Development of large-scale meeting and cultural facilities was inadequate in the District; meeting spaces were largely confined to hotels and smaller auditoriums. The Eisenhower Civic Center was to be sited on the south side of Mount Vernon Square (fig 7).

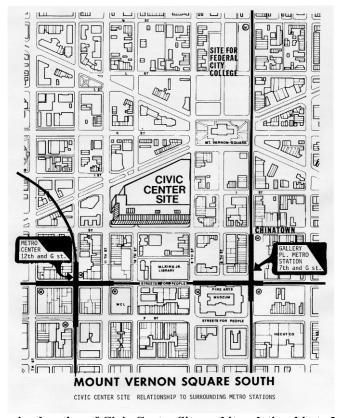


Figure 7-Diagram showing location of Civic Center Site-and its relationship to Metro Center and Gallery Place, the major Metro nodes (DC Planning)

After approval by local and Federal agencies, the project was discontinued due to lack of congressional approvals<sup>8</sup>. In 1977, the project was revisited, and gained the necessary approvals to go ahead with development. The team of Welton Becket Associates, Gray

and West Architects and H.D. Nottingham Associates, the original team of designers for the Eisenhower Center, developed the early Convention Center design.

The architects decided the site for the Convention Center would be identical to the proposed Eisenhower Civic Center. The site had a close relationship to existing hotel and restaurant concentrations, located in close proximity to major visitor attractions, including the Mall; and, during the late 1970's, sites and blocks adjacent to the site were available for large scale rebuilding<sup>9</sup>. Another factor in the choosing of this site was the close access to Metro. The site is within one block of the three Metro lines, and is also close to the Downtown retail core along F and G streets<sup>10</sup>. The architects proposed three alternatives of building massing, each closing multiple L'Enfant streets.

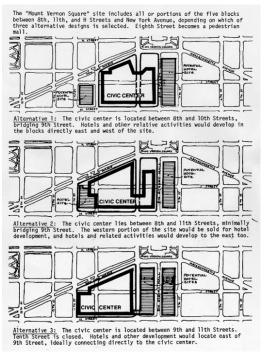


Figure 8-Diagrams showing alternative massing strategies and their resulting growth. Each scheme terminates at least two major streets. Alternative three was chosen to go further with development as the developer owned the necessary parcels of land (NCPC)

The designers hoped for "spinoff" development of hotels in the area, and a pedestrian mall along 8<sup>th</sup> street (fig 8).

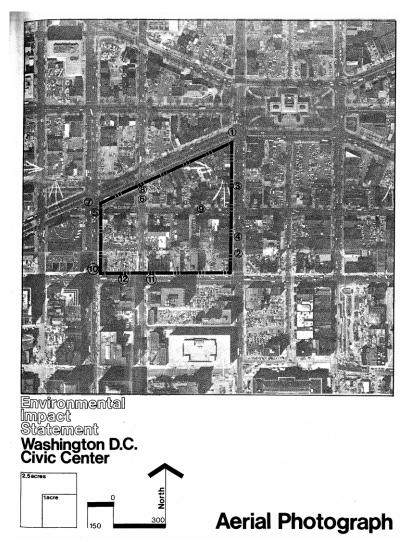


Figure 9-Photograph showing existing condition of Mount Vernon Square in 1977 before the original convention center development. The area was dominated by smaller scale buildings, including rowhouses, single family houses, and small businesses (NCPC)

Existing on the site were several small scale houses and businesses (figs 9, 10). In February 1977, there were 71 households, with 130 residents in the 56 units responding, and 73 businesses<sup>11</sup>. The existing buildings were already under review for demolition, as they were of low quality. The Convention Center was at last built in 1983 (figs 11-16).



Figure 10-Photographs showing existing conditions of neighborhood before development. Photo locations correspond to numbered locations of figure 9. These buildings were all razed to construct the older convention center (NCPC)

The abundance of larger modern assemblies, and the influx of residents to the city, proved the 370,000 sf Convention Center too small for large groups. The Convention Center functioned until early 2003, when the new 2.3 million sf Washington Convention Center was built two blocks north (figs 17, 18).



Figure 11-Image of the northeast corner of the building, from New York Avenue and 9th street



Figure 12-Image from the northwest corner of the building, from New York Avenue and 11th street



Figure 13-Detailed image of the entrance at the northwest corner, along 11th street



Figure 14-Image from the southeast to the site, from the corner of 9<sup>th</sup> and H streets



Figure 15-Image showing detailing of the western wall, and its relationship to 11th street



Figure 16-Image showing the street system around the site, and the contextual buildings. Image taken from western edge of Mount Vernon Square





Figures 17,18-Images showing the southwestern corner and southern elevation of the new Convention Center, along Mount Vernon Place. The new Convention Center more than quadruples the square footage of the older building



Figure 19-Drawing showing figure ground of downtown area. The new and older Convention Centers are evident as large masses in the center of the drawing

# Location

The Old Convention Center site sits within the Mount Vernon district of Washington D.C. Mount Vernon Square is a large public green which is at the intersection of New York and Massachusetts Avenues. This area is at the center of the city, and can be seen as the nexus of existing historic development to the north, and the newer expansion to the west and east (fig 19). Mount Vernon Square is like many other green spaces within the city—they are viewed as formalized open spaces, not informal places of recreation (fig 21). There are numerous older neighborhoods which identify with the site (fig 29). The Office of Planning, in its Downtown Action Agenda, calls for downtown D.C. to "become the center for retail and entertainment".



Figure 20-Diagram showing the five and ten minute walks centered on the site. The site is within walking distance to the Mall and numerous museums

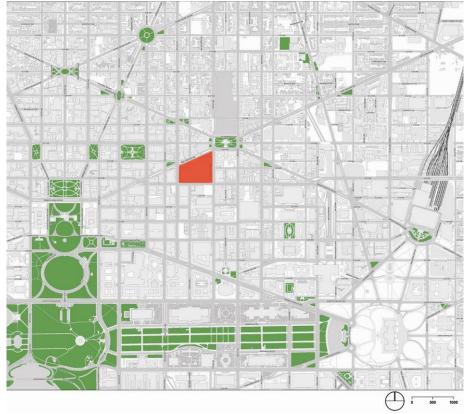


Figure 21-Diagram showing the locations of green spaces in Downtown D.C. Most are formalized and not for recreation

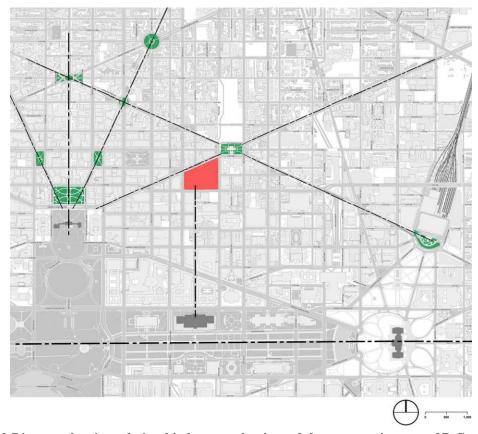


Figure 22-Diagram showing relationship between the site and the many major axes of D.C. connecting many important buildings

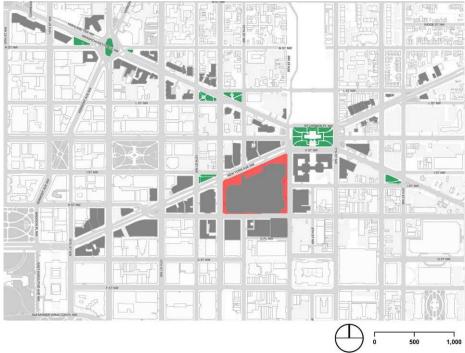


Figure 23-Diagram showing the massing of the existing Convention Center and the street frontage along New York Avenue and Massachusetts Avenue

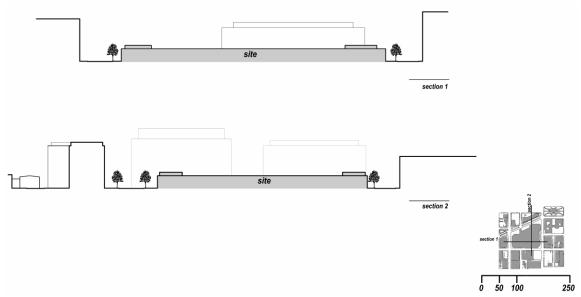


Figure 24-Drawings showing the heights of the existing Convention Center and taller buildings around the site



Figure 25-Diagram showing the shadows cast at 9am on September 1



Figure 26-Diagram showing the shadows cast at 1pm on September 1st



Figure 27-Diagram showing the shadows cast at 4pm on September 1st



Figure 28-Drawing showing building heights and green spaces around the site

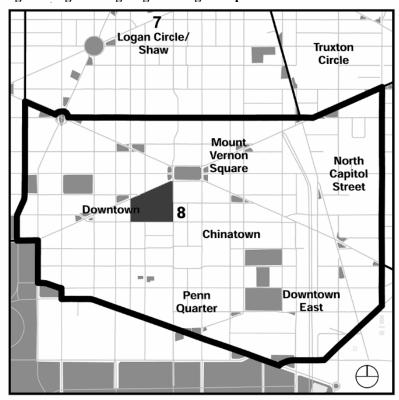


Figure 29-Diagram showing relative sizes and overlapping relationships between urban neighborhoods around the convention center site. The dark line represents the area contained within neighborhood Ward 8 (DC Planning)

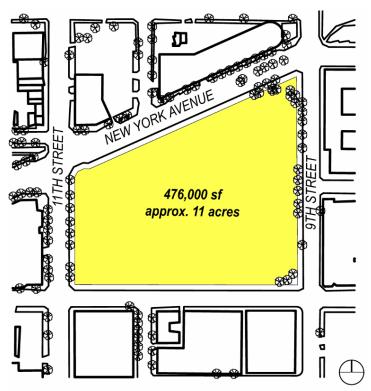
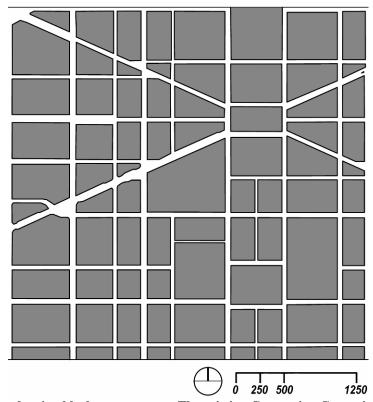


Figure 30-Drawing showing the site and bounding streets.



 $\label{thm:convention} \textbf{Figure 31-Diagram showing block arrangement. The existing Convention Center interrupts the historic plan}$ 



Figure 32-Diagram showing building uses around the site. The area is made up of many offices and residential functions

There is a great amount of urban potential for the Old Convention Center site. The site is bounded by New York Avenue NW to the north, 9<sup>th</sup> street to the east, 11<sup>th</sup> street to the west, and H Street to the south. New York Avenue is the primary street near the site, connecting downtown D.C. to suburban Maryland, creating a gateway to downtown D.C (fig 30).

#### **Context**

The new buildings at the Old Convention Center site will work in harmony with other recent revitalization in the Mount Vernon Square area. With the continuing revitalization of Downtown D.C, an increase in demand for urban housing has resulted in

the construction of many new residential developments, bringing new residents to the heart of the District (fig 33). Extending the Legacy, the National Capital Planning Association's view for the future of the district foresees 8<sup>th</sup> street, located half a block east of the site, as "the spine of a growing downtown arts and entertainment district." 8<sup>th</sup> street terminates on Mount Vernon Square, the site of the DC Museum, a museum dedicated specifically to the history of the City. This formal green space unifies and centers several urban neighborhoods; serving as a focus and landmark for residents.

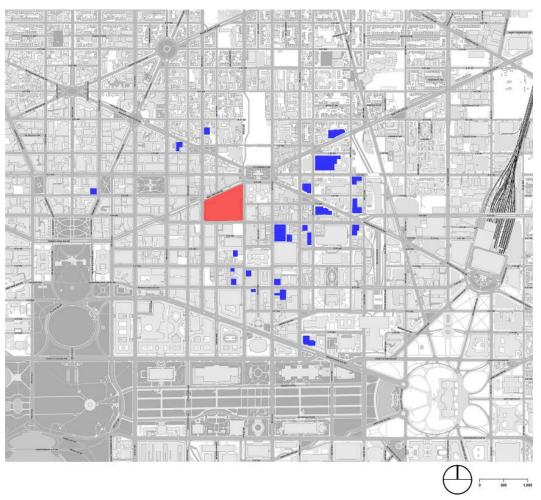
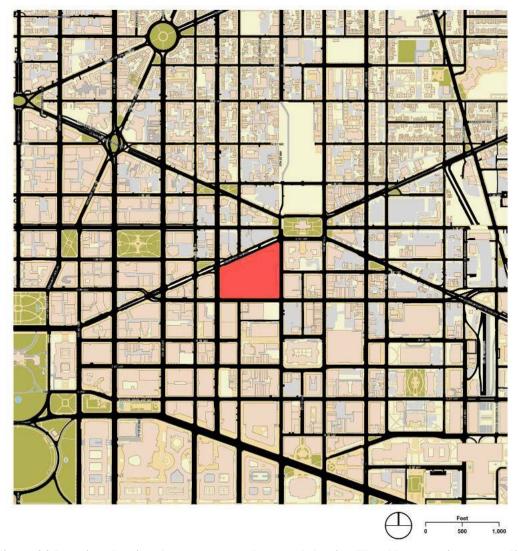


Figure 33-Diagram showing new residential development, and their relationships to the site (DC Planning)



Figure~34-Drawing~showing~the~street~network~around~the~site.~The~old~convention~center~disrupts~the~historic~street~grid~of~L'Enfant~(DC~Planning)

The area surrounding the site has many mixed-use buildings, with varying degrees of pedestrian quality. Several buildings, especially to the south, house office space with office-oriented retail on the ground floor. These buildings are generally an acre in floor size and take up most of their respective block (fig 35). Their heights range in size from 8 to 10 floors. Smaller, 2-to-3 story retail line 8<sup>th</sup> and 9<sup>th</sup> street, with sizes averaging 20' wide and 80' deep (fig 36, 37). Larger hotels and office structures line 11<sup>th</sup> street, with sizes nearing one and a half acres in envelope, and 10 to 12 stories in height (fig 38).



Figure 35-Image of large-scale buildings along H street to the south of the site



Figure 36-Image showing the new Spy Museum, located 2 blocks south of the site, is indicative of 8th street



Figure 37-Image showing the lower scale retail oriented buildings to the south of the site. This architecture is indicative of the area's earlier fabric



Figure 38-Image showing the large office buildings along  $11^{\rm th}$  street. Most buildings have office-oriented retail on the ground floor

There are prominent single-use civic buildings ringing the site (fig 39), including the DC Museum (fig 40), the National Portrait Gallery (fig 41, 42), and the Martin Luther King Library (fig 43, 44). The buildings immediately surrounding the site include the new DC Museum, the former Carnegie Library, Washington D.C.'s previous main library, to the northeast (fig 40), a 14 story hotel and office building (fig 45) and another 9 story office building to the east (fig 46), a 10 story office building to the southeast (fig 47), two 9 story office buildings, a 3 story school and a 14 story hotel to the south (figs 48, 49) a 12 story office building to the southwest (fig 50), a 14 story office building to the west (fig 51), 2 to 3 story dilapidated retail buildings and empty sites to the northwest (fig 53), a two story rental car establishment (fig 54), a 15 story hotel under construction (fig 55), and a new 12 story office building to the north (fig 56).

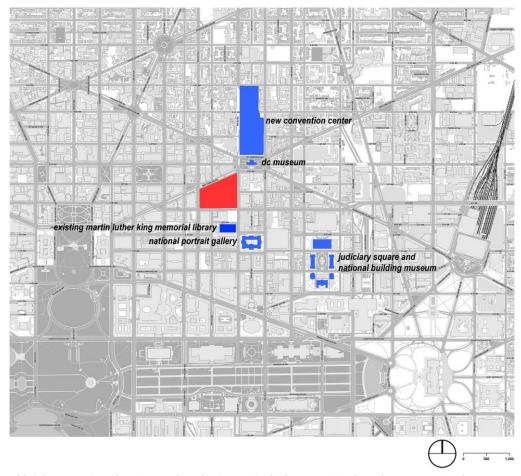


Figure 39-Diagram showing the major single-use buildings and their adjaceny to the site

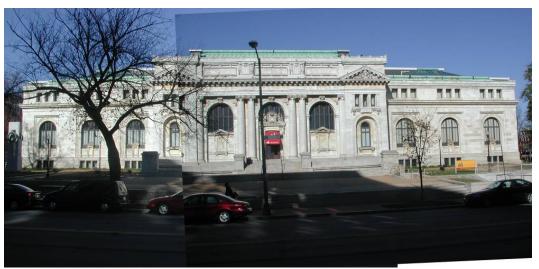


Figure 40-Image showing The Carnegie Library, now the DC Museum



Figure 41-Image showing the south facade of the National Portrait Gallery. The image also shows the new courtyard addition designed by Norman Foster (Foster and Partners)

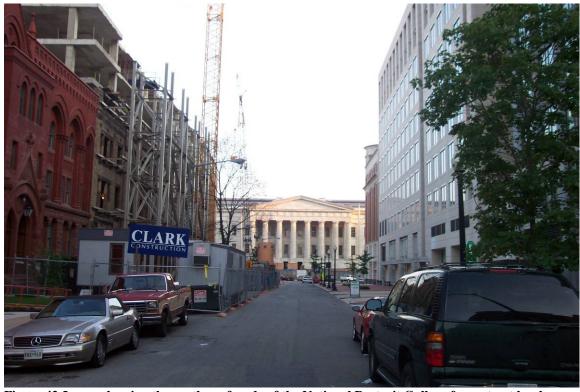


Figure 42-Image showing the southern facade of the National Portrait Gallery from street level, along 8th street



Figures 43-Image showing the Martin Luther King Jr Memorial Library, designed in the 1970's by Mies van der Rohe



Figures 44-Image showing the Martin Luther King Jr Memorial Library, designed in the 1970's by Mies van der Rohe





Figure 45,46-Images showing the 14 story hotel/office and 9 story office building to the east of the site



Figure 47-Image showing the 10 story office building to the southeast



Figure 48-Image showing the 10 story office building to the south of the site



Figure 49-Image showing the street character of H street to the south of the site



Figure 50-Image showing the 12 story office building to the southwest of the site



Figure 51-Image showing a portion of the 14 story office building to the west of the site



Figure 52-Image showing the character to the west of the site, with a 12 story office building fronting a small park



Figure 53-Image showing the 2-3 story abandoned retail buildings to the northwest of the site

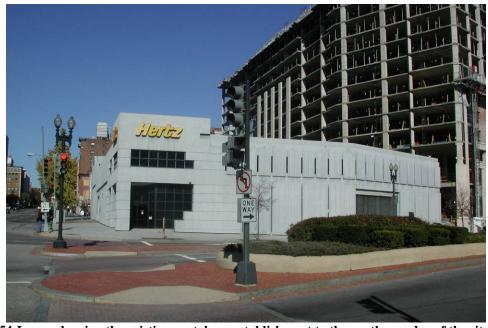


Figure 54-Image showing the existing rental car establishment to the northern edge of the site



Figure 55-Image showing the new 15 story hotel currently under construction



Figure 56-Image showing the new 12 story office building to the north of the site



Figure 57-Image showing the character of New York Avenue to the north of the site-and the relationship of the 14 story office building, the new convention center, and the Carnegie Library

## **Zoning**

The area which encloses the Old Convention Center site is zoned as C-3-C, overlaid with Downtown Development District status, with the DD taking precedence in cases of conflict (fig 58). The C-3-C zoning allows development of major business and employment centers of medium to high density, including office, retail, housing and mixed uses to a maximum lot occupancy of 100% and a maximum FAR of 6.5 for residential and other permitted uses for a maximum height of 90 feet. The DD overlay district encourages a building with a height respective to contextual buildings, and the increase of FAR to 10.0 results in an overall height of 130 feet. <sup>14</sup> The zoning in this area is meant to "be compact and shall be located in or near the Central Employment Area" and the "buildings may be entirely residential, or may be a mixture of commercial and residential uses" <sup>15</sup>

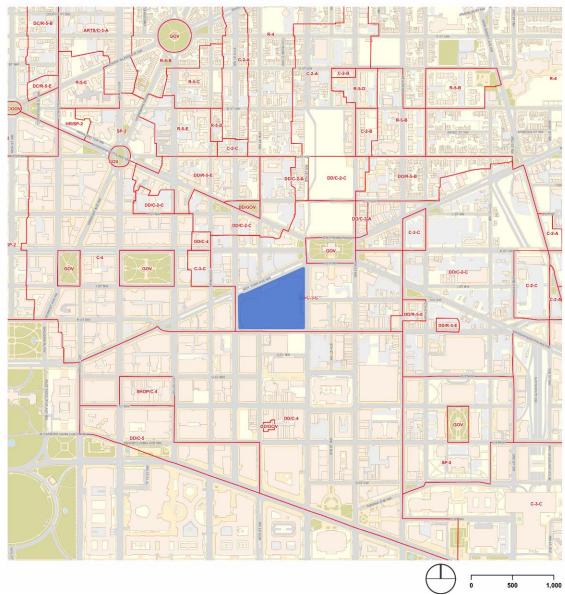


Figure 58-Drawing showing the zoning of the area surrounding the site. The  $\overline{\text{C}}$ -3-C district permits 100% lot occupancy and a FAR of 6.5 (DC Planning)

#### Access

The site of the Old Convention Center is located in the heart of Washington D.C., within walking distance of the many museums and cultural institutions of the Mall, as well as many large hotels which are being built in the area (fig 59).

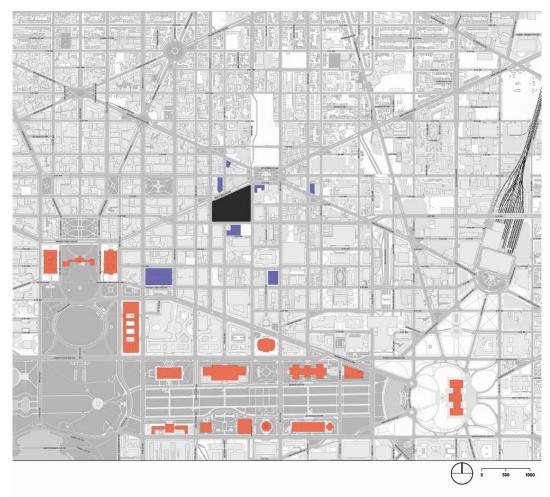


Figure 59-Drawing showing the relationship between the site, the new hotel development around the site, and the monumental core of the Mall

There is an abundance of public transportation in the Mount Vernon Square neighborhood. There are four Metro subway stops within a five minute walk of the Old Convention Center (fig 60). These stops include Gallery Place/Chinatown, Metro Center, the Archives/Navy Memorial station, and the Federal Triangle station. These stops include all the lines of the Metrorail system, drawing visitors to the area from Maryland, Virginia and other portions of the District.

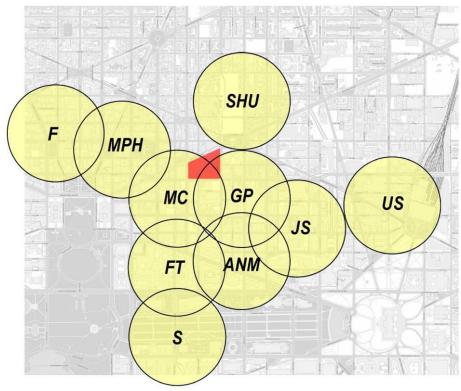


Figure 60-Diagram showing location of Metro stops with associative 5-minute walks and their relation to the site. Metro Center (MC) and Gallery Place/Chinatown (GP) are the closest. Other stops include Farragut (F), McPherson Square (MPH), Shaw/Howard U (SHU), Union Station (US), Judiciary Square (JS), Archives/Navy Memorial (ANM), Federal Triangle (FT) and Smithsonian (S). These stops include all lines of the Metro system, bringing people from Virginia and Maryland



Figure 61-Diagram showing the Metro tunnel system around the site. There are no tunnels beneath the site, allowing for program below grade (DC Planning)

A new proposal by the Downtown Circulator Partner Group (DCPG); a collection of four District agencies including the National Capital Planning Commission (NCPC), the District of Columbia Department of Transportation (DDOT), the Downtown D.C. Business Improvement District (DBID) and the Washington Metropolitan Area Transit Authority (WMATA), recommends a downtown transit system to provide visitors and federal workers a viable mass transit option<sup>16</sup>. The Downtown Circulator aims to provide a simple, inexpensive and easy to navigate surface transit system which will provide additional growth and decreased vehicular congestion in the downtown district. The Downtown Circulator proposes four discrete routes (fig 62); with the North-South route serving the new Convention Center, the downtown area, the National Mall, L'Enfant Plaza, the Southwest Waterfront, and connecting to the White House-Capitol route<sup>17</sup>. The North-South route would pass to the east of the site along 9<sup>th</sup> street, providing access from the Mall and the waterfront to the site.

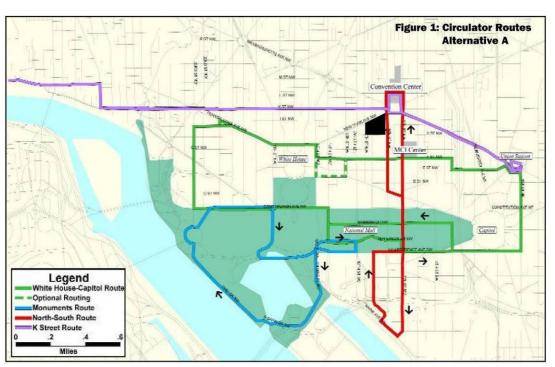


Figure 62-Diagram showing the proposed routes of the DC Circulator. In this scheme, the North-South route runs along the eastern edge of the site (DC Planning)

Most vehicular traffic travels to the site via New York Avenue, which extends into Maryland, connecting visitors from out of state to the center of D.C. There is also ample highway circulation to the site, with Interstate 395 traveling 2½ blocks from the site (fig 63). There is two-way traffic on most of the streets, except 10<sup>th</sup> street, which runs south into the site; and 9<sup>th</sup> street, which also runs south, beginning at Mount Vernon Square. The two way circulation around the site on New York Avenue, 11<sup>th</sup> street and H street allow for clear and ample vehicular circulation around the Old Convention Center site (fig 64). There are many levels of hierarchy in the street system with New York and Massachusetts Avenues being the most hierarchical (fig 65). There are several public parking areas adjacent to the site, but an underground parking garage may be further investigated for the area's new residents, guests and shoppers.

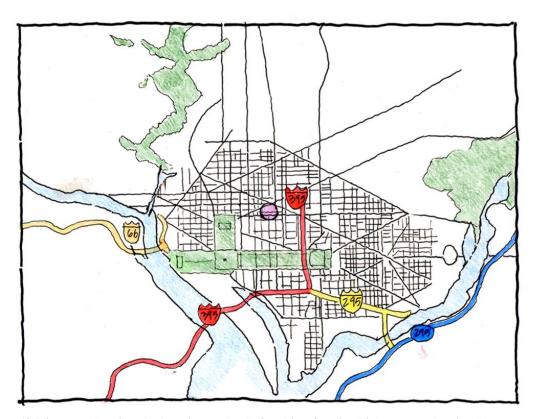


Figure 63-Diagram showing the location and relationship of major highways to the site. Interstate 395 runs closest, 3 and a half blocks east of the site

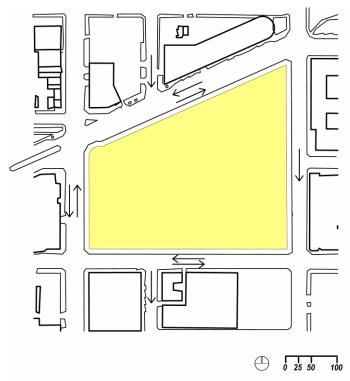


Figure 64-Diagram showing the direction of circulation around the site. The only one-way street is 9th, to the east of the site. The two-way streets on three sides of the site provides ample circulation

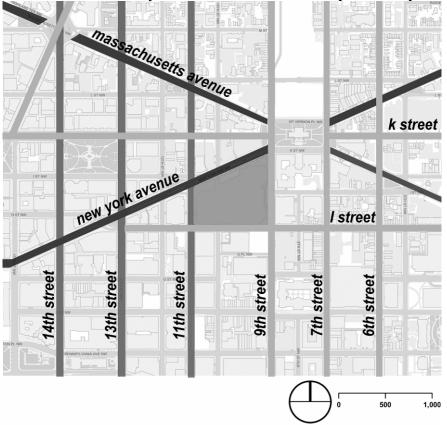


Figure 65-Diagram showing street hierarchy. Massachusetts and New York Avenues (darkest), passing by Mount Vernon Square, are most hierarchical

#### Climate

Washington D.C. is located at 38.5 degrees latitude and 77 degrees longitude. The average winter temperature is 35 degrees, while the average summer temperature is 75 degrees. Annual precipitation averages 42.2 inches. Winds are generally from the northwest, averaging 7.0 miles per hour.<sup>18</sup>

#### **Physical Conditions**

The Old Convention Center site measures approximately 478,600 sf, or approximately 11 acres when developed in its entirety. The east-west dimension of the site is approximately 800', while the longest north-south dimension is 760'. The site has a slope of about 13 feet from north to south. The old Convention Center is 34' tall, and is developed on 78% of its site (fig 66, 67).



Figure 66-Image showing building height of the existing Convention Center. This relatively squat building looks out of place in this area of the District



Figure 67-Drawing showing the older convention center and its environs. The building is built on 78% of its site, and is 34' tall (Norman Foster)

## **Site Strategies**

The old convention center site sits in a critical area of the city. The site is located at the edge of the monumental core of the city, mediating between the Federal scale, and the finer-grain neighborhood scale to the north. The interventions are born out of the site analysis component. While analyzing the site, it became apparent that the existing Convention Center creates a disconnect within the historic L'Enfant grid. In addition, there is a plethora of formalized green spaces, but a severe lack of unprogrammed, informal green spaces.

The L'Enfant grid has come to define the city of Washington D.C. The strict grid, overlapped with diagonals, is the symbol of the city. At the intersection of these diagonal streets lies a prominent building or space. With the construction of the existing Convention Center in 1983, two of L'Enfant's original streets, I and 10<sup>th</sup> streets, were

closed. There is no access through the site, as the southern portion of  $10^{th}$  street runs directly to the Mall and the Museum of Natural History (fig 68).

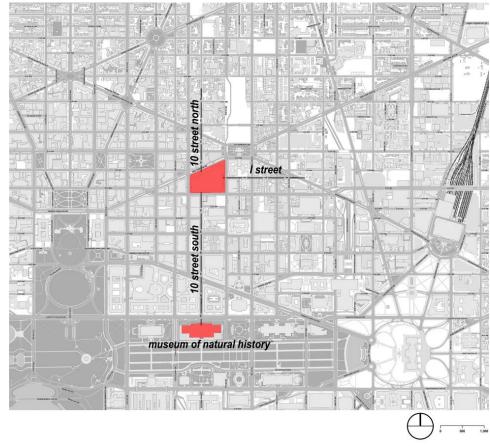


Figure 68-Diagram showing the termination of I and 10th streets, and the relationship between 10th street south and the Museum of Natural History

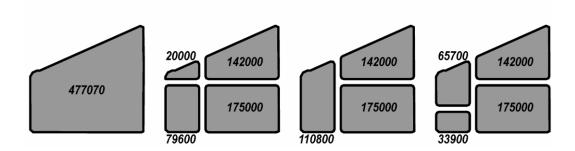


Figure 69-Diagrams showing existing block square footage, and three options for alternative block sizes





Figure 70-Diagrams showing the existing block massing, and one possible development. With this strategy, light will be able to reach the central square when building at the maximum height of 100'

The deconstruction of the Convention Center may enable the reconnection of these historic streets, reknitting the urban fabric of the city together. The reinsertion of these streets also promotes the possible development of four blocks of varying size, from 0.45 acres to 4 acres, creating the opportunity for four distinctly different buildings and programs (fig 69, 70).

The city of Washington D.C. has the signature feature of the Mall. It serves as a public and memorial linear park, stretching from the Capitol building to the Lincoln Memorial. The Mall is interesting as it has a dichotomous role, being able to serve both formal functions, such as protests and marches, and informal functions, such as sports and movie screenings. Overall, the Mall is viewed as a formal space, with numerous museums and cultural institutions lining its edges. There are relatively few informal green spaces in the District. Most of these spaces work at the city scale rather than the scale of the neighborhood (fig 71).

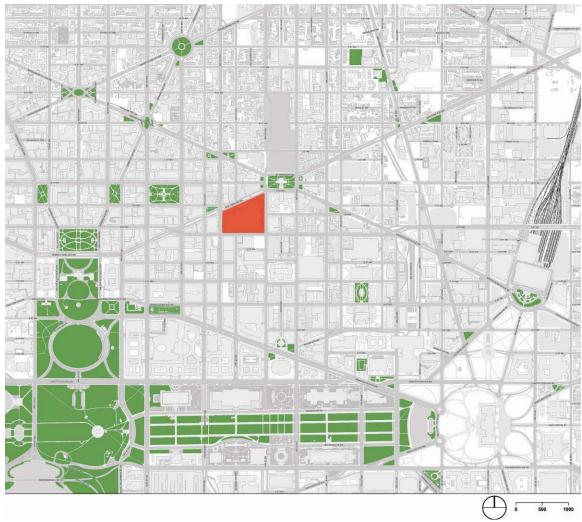


Figure 71-Diagram showing the location of green spaces in the Downtown area. These spaces are predominantly formal in nature

The first intervention transforms a large portion of the site-about 1.5 acres, into a microcosm of the Mall. It can serve both as an informal gathering place, as well as a formal space for assembly-such as school concerts or art exhibitions, which would serve to activate and unify the community.

### **Alternative Proposal**

The Old Convention Center site is seen by many as the most valuable piece of real estate on the east coast<sup>19</sup>. The size of the site, and its location in such an urban environment increases the value, and scrutiny, of a project developed upon it. A scheme designed by Sir Norman Foster was recently awarded winner of a design competition given by the D.C. Office of Planning. The scheme is to be developed by Hines Interests of Houston<sup>20</sup>.

The scheme is ambitious in its design, yet does not accurately address the goals of increased residential options set by Mayor Williams. The scheme extends I street through half the site, and continues  $10^{th}$  street through the entire site. A new street,  $9\frac{1}{2}$ , ends at I, and leads south to H street (fig 72).



Figure 72-Drawing showing the new street pattern created by the Foster scheme. Both 10th and I street are cut through the site, along with 9 1/2 street. (Foster and Partners)

The scheme also creates a pedestrian street which leads obliquely from the DC Museum to the intersection of 10<sup>th</sup> and H streets (fig 73). The scheme proposes 300,000 sf of retail of various sizes, 800 rental units, 400 condominiums, a boutique hotel of 200 rooms, 375,000 sf of office space, a 250,000 sf central library, and 2200 required parking spaces, plus 500 spaces for public usage<sup>21</sup>.



Figure 73-Drawing showing pedestrian circulation from DC Museum through the site, and the large public plaza at the center of the scheme. (Foster and Partners)

While these uses will be reflected in my thesis, the Foster scheme does not address Williams' directives. The scheme proposes 800 rental units, but only 20%-160 units are deemed affordable. There is also only 20% of the 400 available for sale units, 80 in total<sup>22</sup>. While the housing market of Washington D.C. could sustain strictly market-rate housing, it does not address all residents of the District. If the city truly wants to diversify the types of residents in the District, the percentages of affordable units must be higher, both rental and condo types. The Foster scheme proposes 375,000 sf of office space, yet the District already has 5.1 million sf in office space under construction, and

another 7.2 million sf in the design phase<sup>23</sup>. With 12.3 million sf in future development within 3 blocks of the site (fig 74), it is not reasonable to include 375,000 sf of office space on the site.

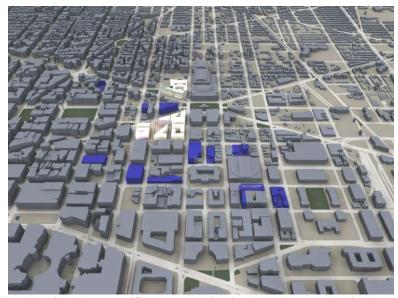


Figure 74-Drawing showing the new office construction in the area near the site. Development totals 12.3 mil sf. (Foster and Partners)

In addition, Foster includes a "boutique" hotel of 200 rooms, yet there are 860 rooms under construction, with another 2,200 rooms in the design phase, up to two blocks away from the site (fig 75). Again, it does not seem reasonable to include this type of transient housing program when more affordable, permanent living units could be included on the site.



Figure 75-Drawing showing the new hotel development near the site, development totals 1200 rooms (Foster and Partners)

## CHAPTER II

# **Precedent Analysis**

Precedent One

Wax Museum Competition

Washington DC

Torti Gallas and Partners

The Wax Museum competition is similar both programmatically and in its urban design to the proposed complex at the Old Convention Center site. The site is located at 5<sup>th</sup> and K streets, half a block south of New York Avenue. The site is located 2 and a half blocks east from the Old Convention Center (fig 76).

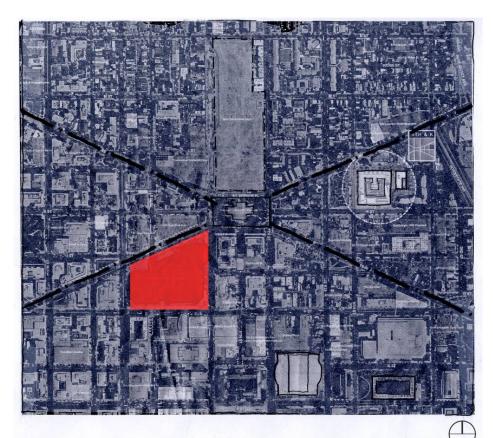


Figure 76-Diagram showing the urban relationship between Wax Museum and Old Convention Center site

The competition and the new buildings at the Old Convention Center are similar programmatically as both aim to be mixed-use building complexes which activate the surrounding community and serve as a meeting place for both residents and visitors. The most interesting component of the plan at the ground level is the urban Safeway supermarket, measuring 57,500 square feet, an ambitious opportunity to introduce a self-sustaining building into an urban atmosphere. The goal of the project, and the buildings at the Old Convention Center site, is to provide all the retail needs of the residents to lessen the dependence on the automobile for consumer needs. There are two levels of retail which face 5<sup>th</sup> street, with a health club occupying the second floor mezzanine. Smaller scale retail surrounds the supermarket on two sides, breaking down the scale of the supermarket and offering opportunity for smaller-scale retailers (fig 77).



Figure 77-Drawing showing the plan relationship between large supermarket and smaller retail wrappers (Torti Gallas)

Another aspect of the ground floor which is pertinent to my scheme is the way in which service is handled. There is a central spine of service running the length of the block,

which handles delivery and refuse from all retailers, as well as the residential units above (fig 78).

Above the ground level are 10 stories of residential units, for a total of 532 units. The units are mostly one-bedroom units, 373. There are also 42 lofts and 117 two-bedroom units. The new complex at the Old Convention Center site will accommodate all types of residential situations, from singles to small families, and varying incomes, to ensure a diverse population. Units will be included which range from lofts to three bedroom apartments. Below street level are 4 levels of parking, totaling 40 residential only parking spaces, and 1330 common spaces for shopping, working and living (fig 79). There are two large public plazas where L and K streets intersect 5<sup>th</sup> street, activating the community and creating a meeting point for the neighborhood.

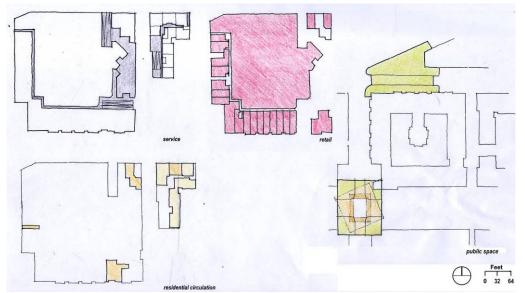


Figure 78-Diagrams showing the disposition of program, including service, retail, vertical residential circulation, and major public spaces

Architecturally the Wax Museum aims to make a powerful statement as a modern prismatic form in a developing area of the District (fig 80). Glass prisms protrude from the precast concrete face to both break down the scale of the large building and provide a

visual statement at a distance. The Wax Museum project aims to create a modern landmark and destination. The new complex at the Old Convention Center aims to analyze and interpret the programmatic and site conditions of the Wax Museum, creating a partner, and further strengthening the Mount Vernon Square district.

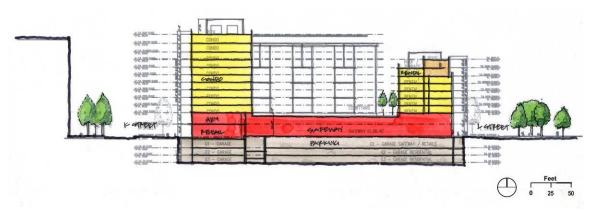


Figure 79-Section through Wax Museum Competition-showing the relationship between parking, retail, and residential functions. (Torti Gallas)



Figure 80-Perspective showing the corner of L and 5th streets, showing the high use of glass and prismatic forms (Torti Gallas)

Precedent Two

**Arlington East** 

Bethesda, Maryland

Torti Gallas and Partners

Arlington East, the mixed use building in the Bethesda Row area of Montgomery County is also relevant to my thesis in terms of program and urbanistic strategies. The project sits in the urban site of Bethesda, Maryland, taking up the western edge of a preexisting block.

The site is bounded by Elm Street to the north, Arlington Road to the west, and Bethesda Avenue to the south. A large above grade parking garage built by the county occupies the center of the block (fig 81). The main components relevant to the Old Convention Center site are the way in which the architects create a pedestrian street through the site, and the siting of the building on the end of a block. The pedestrian-only street creates a secondary and more intimate retail passage, further strengthening the public realm.

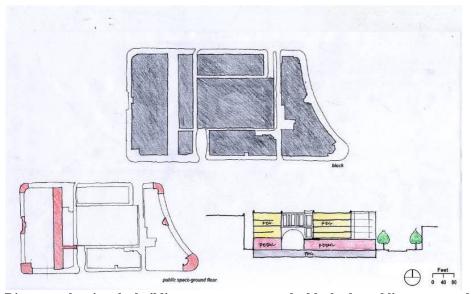


Figure 81-Diagrams showing the building arrangements on the block, the public spaces on the ground floor, and the typical section through the Festival Street

That realm is also reinforced by the small plazas located at the corners where Bethesda and Elm intersect Arlington, which provide a place that is clearly separate from vehicular traffic (fig 81). There may be two streets cut through the Old Convention Center site, knitting the community and urban fabric back together. The siting of the building on the western edge of the block provides three street walls, creating an object building within the block. The festival street scheme and the possible object-ness of a fabric building will serve as models for my thesis.

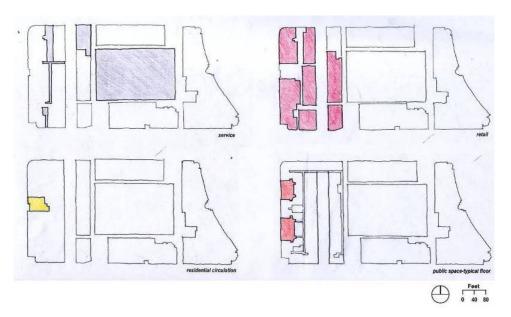


Figure 82-Diagrams showing the arrangement of program, including service, retail, vertical residential circulation, and typical floor public space

There are two levels of parking below grade, providing residential spaces, and spaces for retail. Arlington East decreases its parking needs by utilizing the above grade parking garage, providing spaces for shoppers and residents. This method may be utilized on my site, providing levels of below grade parking, and providing a less expensive above-grade structure which may be wrapped with other programmatic functions to

effectively "hide" the parking structure. The ground floor retail offers several distinct restaurants and other retail establishments indicative of Bethesda Row (fig 83). The service for these retail establishments is internalized into the main building, hiding it from any vehicular street, especially the Festival Street.

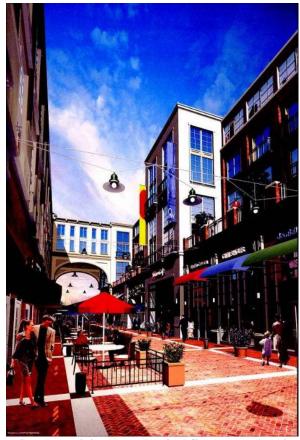


Figure 83-Perspective showing the activity along Festival Street, a pedestrian only passage (Torti Gallas)

There are four stories of residential over the retail, providing several housing options for residents. There are a total of 180 units, with 54 lofts, 79 one-bedrooms and 47 two bedrooms. Within each residential floor are two large outdoor public areas, creating a feeling of community within the floors of the building. Elevationally, the large balconies break down the building, creating a rhythm across the façade, and providing an interaction between residents and passers-by on the street (fig 84).



Figure 84-Perspective showing exterior of Arlington East. The massing of the project is broken down into several discrete buildings (Torti Gallas)

Precedent Three

Miller Park Plaza

Chattanooga, Tennessee

Koetter Kim and Associates

Miller Park Plaza is a revitalization effort by Koetter Kim and Associates located in Chattanooga, Tennessee. Chattanooga was going through the cycle of disinvestment and flight to the suburbs which is being experienced by many American cities. The area was desolate on weekday evenings and on the weekends, as most workers lived in the suburban areas, commuting to center city. The project aimed to create a downtown destination for residents and workers in the area. A large plaza was the central element of the five-block scheme, working in tandem with a small pavilion which is used for concerts and school performances and displays (fig 85).

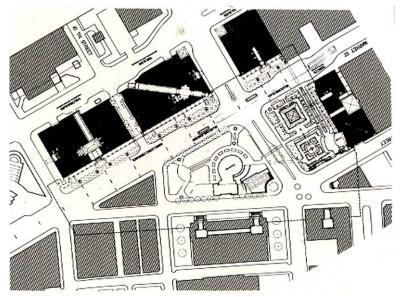


Figure 85-Plan drawing of Miller Park Plaza. Fabric buildings, in black, reinforce the urban plaza. (Koetter Kim and Associates)

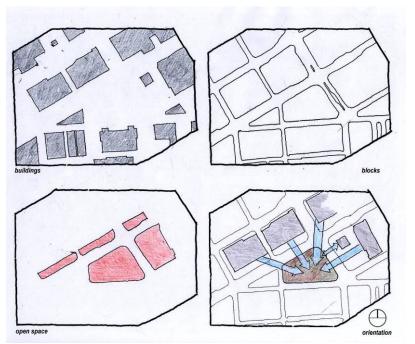


Figure 86-Diagrams showing the urban strategy for the project, including figure ground, block system, main public spaces, and the orientation of the background buildings to the main plaza

The project is located at the confluence of the two original grids of the city, which were oriented to the meandering Tennessee River, a central location within the city (fig 87).

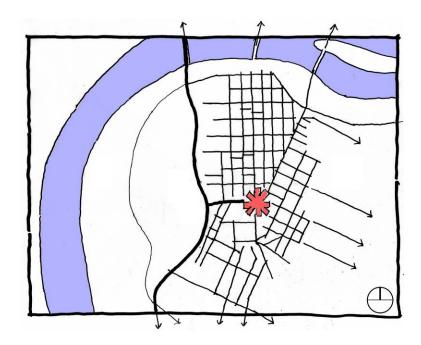


Figure 87-Diagram showing project location at the intersection of the two original city grids, and the relationship between the city and river

Miller Park Plaza uses a relatively simple kit of parts to create the public realm. The use of arcades, tower elements and generous setbacks for sidewalks both break down the scale of the project and provide a place for the public in an urban setting (fig 88). There are several buildings which accompany the pavilion and large piazza, but they are designated as background buildings; further framing and reinforcing the enclosure of the plaza.

This project is relevant to my thesis as it centers on the creation of public space rather than buildings. There is a lack of public spaces in the area which could be used by local schools and artists to further create a community atmosphere in the neighborhood. Another aspect of Miller Park Plaza which is relevant to my thesis is the way Koetter Kim and Associates detail their projects. Most urban projects from the office are brick, in a neo-traditional or updated warehouse aesthetic. There are several subtle moves the designers make to break down the scale of large buildings, including multiple string

courses, two story retail bases, contrasting materials and human scaled elements to make a large scale project feel more intimate and human scaled (fig 89).

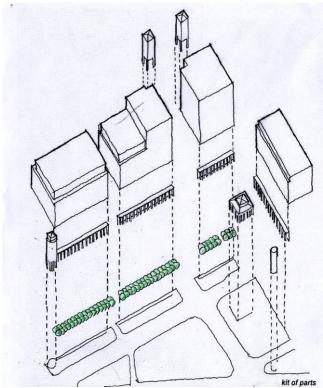


Figure 88-Axonometric drawing showing the simple kit of parts used to make a public space (Koetter Kim and Associates)

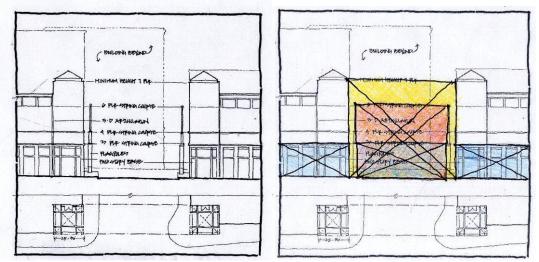


Figure 89-Diagrams showing the parti of elevations, the elements of the typical elevation, and the differing spatial feelings provided by the elevational elements (Koetter Kim and Associates)

Precedent Four
The Brown Center-MICA
Baltimore, Maryland
Ziger/Snead Architects

The Brown Center, located in the Bolton Hill neighborhood of Baltimore, is the newest addition to MICA, the Maryland Institute College of Art. The building is designed in a modern aesthetic, a diversion from the historic fabric of the neighborhood, and the MICA campus (fig 90). The project is designed in this style as it houses the school's growing computer graphics and animation curriculum. The site for the building is dictated by local thoroughfares Mount Royal Avenue and Howard Street as well as the existing Fox building, a former shoe factory transformed into classrooms. Interstate-83, a major highway which leads to southwest Pennsylvania, passes below grade adjacent to the eastern edge, further cramping the site. The intriguing angles of the building come from the 62 degree angle of the site, and are repeated throughout the building.



Figure 90-Picture showing relationship between the Brown Center, and the existing Fox Building (Architectural Record)

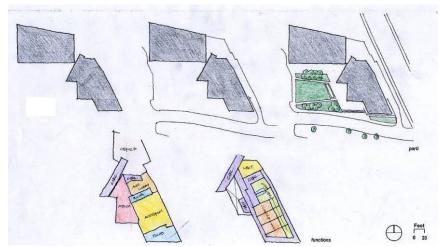


Figure 91-Diagrams showing plan relationships, including site parti and the disposition of program

The building measures 61,000 sf, and houses a 550 seat auditorium, and several computer labs/classrooms and faculty offices. The smallest developable parcel of the Old Convention Center site is 79,600 sf., illustrating the scale of the project. The parti of the building is a basic concrete loft building, with a prismatic atrium attached (fig 92). The architects pulled the building to the extreme eastern edge of the site, with the service entry on the site line, creating a spatial buffer from I-83. The placing of the building on the eastern edge of the site also creates a large useable public space on the western edge of the site, fronting the Fox building, and creating a place for informal student meetings and interaction between faculty and students (fig 91).



Figure 92-Picture showing exterior view of the Brown Center, and its relation to Mount Royal Avenue. (Architecture Record)

This project will be utilized in my thesis primarily in a stylistic manner. The Brown Center uses a fritted glass to create a translucent face to the building. Depending on the time of day and year, the building takes on an array of colors, from milky white to pink, green and clear, and from opaque to transparent. The angles of the form and the detailing of the glass system may be echoed on my site, as New York Avenue and the grid create a 24 degree angle. The program within the prismatic forms may be reinvented to house the new Martin Luther King Library, creating an updated version of the rigid Miesian grid, while crafting a new landmark and gateway to the capital.

The Brown Center also has an intriguing yet simple structure-the juxtaposition of a grid system and the exposed angular structure of the atrium. But there is a further juxtaposition between the Brown Center and the adjacent Fox Building which may be more relevant to my thesis. The Fox Building has an expressed structure of columns and floor slabs, while the Brown Center internalizes its structure, creating an interesting visual timeline (fig 93). With up to four developable parcels, buildings of differing structural systems, program and stylistic ideas will need to coexist and create a balanced and harmonious experience.

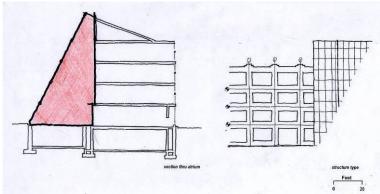


Figure 93-Diagrams showing the relationship between the prismatic atrium and the loft building. Also, the structural relationship between the Brown Center and Fox Hall

Precedent Five

Peckham Public Library

London, UK

Alsop and Stormer, the architects of the Peckham Public Library aimed to break the mold of library design. The site is within South London, in a very congested urban site, so the architects lifted the building into the air; reducing the impact of street noise while providing many distant vistas to Central London. There is also a large recess in the front façade, creating a covered open space for small concerts and gatherings (fig 94).



Figure 94-Image showing front facade of library-the intriguing fenestration patterns, and the large recession which provides a space for public display and interaction (Alsop and Stormer Architects)

The building is 29,000 sf, which is quite a bit smaller than the proposed MLK Memorial Library. There are two thin bars of administrative functions under the double-height reading room (fig 95). The architects of the building sought to appeal to a wide range of users, across age, race and cultural barriers. Peckham Library aims to create a

new image for what a library of the future could be-the reinvention of education, learning and reading.

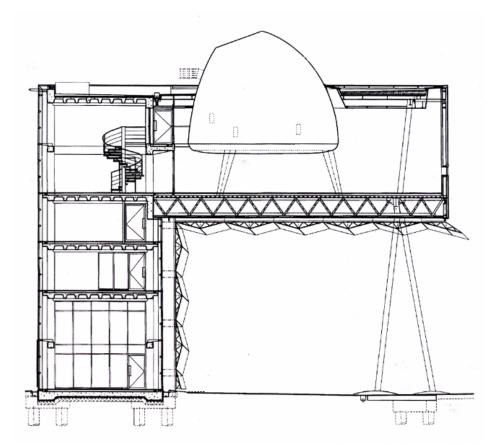


Figure 95-Drawing showing the section of the building through the reading room-showing the entry, administrative bars and the double height reading room with pods (Edwards)

The main reading room is on the second floor, raised approximately 40' from the busy street life of London. There are three copper colored "pods" contained in the reading room. These pods puncture the roof line and house an area of special interest, the largest holding an Afro-Caribbean literature collection, and the two smaller pods housing a children's collection and meeting room (fig 96, 97).

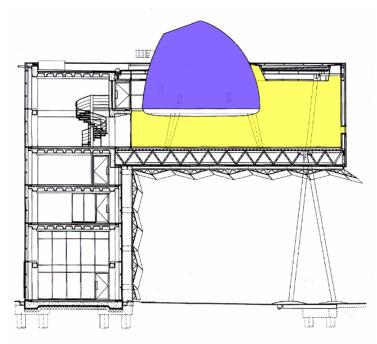


Figure 96-Diagram showing vertical relationship between pods and the remaining reading room. The pods were designed to emulate the varying roof heights of London



Figure 97-Image showing the copper-cladded pods' relationship to the reading room. The spaces seem to hover above the work spaces (Alsop and Stormer Architects)

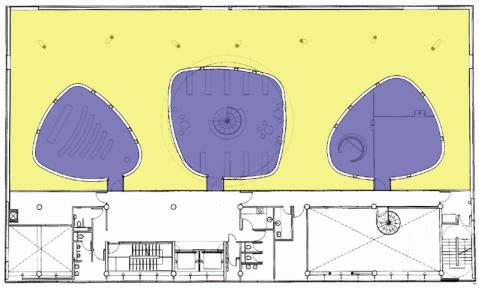


Figure 98-Diagram showing the relationship between the pods and the reading room

The detailing of the building is also unorthodox. The book stacks are placed at an irregular pattern, with some responding to the reading room entry, while others react to the overhead pods. The fenestration of the facades is also unbalanced, providing little natural light to the working areas pushed to the perimeter of the building (fig 99).

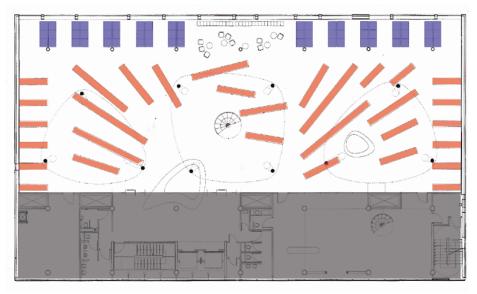


Figure 99-Diagram showing relationship between poche of service area, irregularly spaced stacks, and working areas pushed to the northern facade of the building



Figure 100-Image showing the modernist language of the rear facade. The whimsical nature of the colored glass creates a prominent elevation (Alsop and Stormer Architects)

Peckham Public Library as a public institution has its strengths and weaknesses. The detailing of the façade creates an interesting play of light-much like the Brown Center-which would create a modern landmark in Downtown D.C. The recession of the front façade not only marks the entrance, but provides a place for public interaction-a major component of the thesis. In the end, the project seems to be too object like. It has very little reference to context-it has been called "just a big gesture" (fig 100). The new Martin Luther King Memorial Library must respect the existing context- it may be the jewel, but it must also have the protection of the box. The library may be designed in the same modernist language as Peckham-to illustrate the new modern library: new technological advances in the area of book selection and retrieval, computer usage and research and increased public services such as galleries and cafes.

#### CHAPTER III

#### **Detailed Program Description**

The program of the building complex adapts uses and sizes from both the Wax Museum Competition located two and a half blocks east, and the proposal for the redevelopment of the site designed by Sir Norman Foster. Both projects aim to create a mixed use atmosphere, utilizing market-rate housing and larger retail establishments to create a center in an underdeveloped area of the District. This thesis incorporates a larger percentage of affordable housing than the two precedents-resulting in a greater mix of residents and creating a more diverse urban environment. This program tabulation determines the approximate square footages for both the Master Plan of the site, and the new Martin Luther King Memorial Library.

<u>Retail</u> 200,000 sf

The retail functions of the new buildings on the old convention center site is a mix of larger retail establishments, working in unison with smaller independent retail options. The large retail provider is a small supermarket with a pharmacy, ultimately with a footprint of approximately 35,000 sf. The urban supermarket serves as the anchor of the retail options, providing an option for groceries within walking distance to the many developing residential communities in the neighborhood. The smaller retail functions range in size from 3500 to 9000 sf. These retailers provide a wide range of services; from restaurants and small cafes, to small sandwich shops, clothing retailers, personal care; such as dental, physician and law, and other professional services.

Service Functions 75,000 sf

Since the buildings of the thesis are fronting multiple directions, there is no "back door" to any of these buildings where service may take place. Therefore, the service for these retailers takes place underground on a concourse level of the parking garage.

Residential 1400 total units

There is a wide range of residential options within the project, creating a diverse living environment. Of the 1400 units, 500 units are for sale condominiums, and 900 are rental apartments. 30% of the condos are affordable, totaling 150 units. Also, 405 apartments are affordable, 40% of total, to ensure an adequate mixing of residents. Both condominiums and apartment units range from studio to three bedroom to provide adequate housing for a variety of family situations.

Open Space 1.5 acres

The open space will serve as the heart of the community. It will be utilized by residents and visitors, for both formal and informal functions. The space should be central within the plan, and have a close relationship to the Martin Luther King Library.

#### The Martin Luther King Memorial Library

285,000 sf

The MLK Library serves as the cultural anchor of the neighborhood, encouraging residents from the entire city to learn, share and interact. Classrooms, as well as typical library functions, provide the opportunity for continued education classes and public lectures.

Lobby 30,000 sf

The lobby acts as gathering space in the building, and as a reference point within the building. A café is available to serve refreshments throughout the day to library patrons, and a gallery displays artwork prod

Gallery 9,000 sf

A small gallery is housed within the main lobby-showcasing artwork from within the community as well as displaying traveling exhibitions. The gallery would be open during library hours, and remain open during the evening.

Café 10,000 sf

A small café is located within the lobby for all library patrons, and the general public. The café would remain open during the evening hours while the cinema is in operation. The café contains a small kitchen which is needed to prepare meals.

Bookstore 10,000 sf

The bookstore should be located close to the main entry and easily accessible to users and visitors. The bookstore houses educational material related to the history of the city, the nation, and the teachings of Martin Luther King.

Theaters 2 @ 4,400 sf 10 @ 2.100 sf

The larger theatres accommodate 80 people each. The smaller theatres accommodate 25 people each. These will be used during the day for showing educational media, and utilized in the evening as a cinema, screening first-run and historical films. The theatres will have necessary lobby space for interaction before and after screenings.

Classrooms 8 @ 2,500 sf

The classrooms, accommodating 40 people each, will be used by the general public and schools in the area for educational classes. An extended learning program to be used by older residents of the area takes place in the evening and on weekends.

Adequate storage is also provided. Four of the classrooms provide personal computers for classes in which information technology is involved.

Computer Labs 5,000 sf

The computer labs are utilized by everyone in the community, from students researching papers, library patrons searching for books and periodicals, or visitors to the area learning about the history of the city and the neighborhood. The computer lab is located near both the lobby and the stacks.

Librarian Desk 50 sf

The desk is located at a central point within the stacks section of the building. The librarian serves as a director for visitors to find materials and information. The desk is close to entrance to facilitate check-out and return.

Book Stacks 95,000 sf

The library will accommodate the collection of the existing Martin Luther King

Library, and be able to grow the collection of the main branch of the District's library

system, providing material from children's books, to reference material, and other media.

Reading Room

2 @ 10,000 sf

The main reading room of the library serves as the heart of the building. It is a very open space and relatively unprogrammed, to allow for variation in usage. The

reading room has a large amount of diffused natural light throughout the day to create a dynamic space for education. The location of the reading room may face out to the main plaza, creating a relationship between these two main public spaces. Ample reading carrels and seating is provided, as well as computers to increase activity and interaction in these areas.

Administrative Offices 16 @ 600 sf

These offices provide spaces for a variety of library officials, including a director, chief librarians, administrative and support staff.

Large Public Meeting Room

4,800 sf

A large public meeting space will provide a space for meeting in which many residents of the community take part. This space may have a prominent location within the building and have a connection to the plaza space.

Conference Room 2 @ 3000 sf

The conference rooms will be located centrally within the administration offices, providing places for formal meetings and administrative meetings.

Administrative Lounge

2,000 sf

The lounge provides space for the library officers, administrators and staff to meet informally. It includes a small kitchenette and food storage, as well as comfortable chairs for relaxation. The space should have access to natural light and air.

Storage Room 500 sf

A storage room is located within the administrative area to house library records, a complete list of present and future library acquisitions, current and future performances and school program information.

# **Program Tabulation**

Retail Service	e Functions		200,000 sf 75,000 sf
Residential			1,400 units
Open Space			+/- 1.5 acres
Martin Luther King Library			
Lobby			29,720 sf
·	Gallery		9,000 sf
	Café		10,000 sf
	Restrooms	2 @ 360 sf	720 sf
	Bookstore		10,000 sf
Education			169,850 sf
	Theatres	2 @ 4,400 sf	8,800 sf
		10 @ 2,100	21,000 sf
	Classrooms	8 @ 2,500 sf	20,000 sf
	Computer Lab		5,000 sf
	Librarian Control Area		50 sf
	Stacks		95,000 sf
	Reading Room	2 @ 10,000 sf	20,000 sf
Administration			22,900 sf
Administrative Offices 16 @ 600 sf			9,600 sf
Large Public Meeting Room			4,800 sf
	Conference Areas	2 @ 3,000 sf	6,000 sf
	Administrative Lounge		2,000 sf
	Storage Area		500 sf
Support and Services			5,200 sf
	Storage		3,000 sf
	Restrooms	general: 4 @ 150 sf	600 sf
		administrative: 2 @150 sf	300 sf
	Custodial	2 @ 150 sf	300 sf
	Loading		1,000 sf
Building Subtotal		227,670 sf	
	15% Gross Circulation Factor		34,150 sf
	10% Mechanical Factor		22,767 sf
Building Total			284,587 sf

The Martin Luther King Memorial Library is the jewel of the site. To be a successful and utilized building, it must be easily accessible. The MLK Library will provide many needed services to the public, some available into the evening hours. The public spaces, which may be utilized by anyone, without entering the stacks or reading room areas, include the café, bookstore, gallery and theatres. These areas will be available for public education and entertainment for all residents. The café, bookstore and gallery will operate during normal business with extended service into the evening to attract the public and serve the late night screenings in the theatres.

The stacks and reading room areas, along with another, smaller computer research area and the classrooms will primarily be used by the library visitor. These spaces will be utilized during normal business hours. These spaces may be elevated above the more public uses, to create a vertical separation of public and semi-private spaces.

#### CHAPTER IV

#### **Design Goals**

## Urban Design

- -Restitch the historic fabric of the L'Enfant plan which is terminated by the existing Convention Center
- -The creation of a dynamic mixed-use community within a developed urban area
- -Creation of a visual landmark for visitors and residents
- -Promote growth and infill development along New York Avenue
- -Creation of a quality public space at the heart of the development
- -Provide a cultural anchor on the site
- -Serve as a model for large-scale urban design in a highly developed area
- -Design a project which works at both the neighborhood and city scales

# Community

- -Create a development on the human scale, not the national scale
- -Provide a variety of housing options
  - -Affordable and Market
  - -Efficiency to 3 bedroom
  - -Rental and Condominium
- -Provide a range of retail options
  - -Large chains and small independents
  - -Destination and Convenience
  - -For the resident and for the visitor
- -Create a sense of space for public interaction and social events

- -Promote a 24-hour vitality with edu-tainment options
- -Design spaces that are safe and easily recognizable as public by both residents and visitors
- -Place the Library in a prominent location to announce its importance to all users
- -Design buildings of varying styles to create a dynamic experience

# Martin Luther King Memorial Library

- -Create a building which is accessible to all residents of Washington D.C.
- -Create a destination for residents and visitors
- -Build a structure which is a smooth transition from the existing building
- -Design the building with respect to its predecessors
- -Incorporate new library technologies available for all users
- -Incorporate existing volumes while providing space for expansion
- -Provide an educational experience for visitors
- Create a functional, intuitive and easily-navigable building

#### **Design Issues**

#### Urban Design

- -Resolving issues relevant to the inclusion of the L'Enfant grid
- -Organizing the street grid and building frontage
- -Phasing the project intelligently
- -Deciding where on the site the MLK Library occurs
- -Arrangement and placement of affordable and subsidized housing in relation to market-rate housing

- -Placement of primary building fronts on existing streets
- -How retail and MLK Library are served

## Community

- -The integration of market-rate and affordable housing components
- -Quality and quantity of interaction between socially varied groups
- -The juxtaposition between 24 hour edu-tainment and a residential community
- -Accommodating a high number of visitors into a predominately residential development

## Martin Luther King Memorial Library

- -Producing a building sympathetic to the previous iterations
- -Planning a building for all residents of the District
- -Intuitive placement of public program
- -Clear separation of circulation for staff and users in an object building
- -Separation of library program-technological, children, adult, special collections

## Parti I: Library as Gateway

The first parti organizes the site by cutting I and 10<sup>th</sup> streets through the site. The MLK Library is placed to the extreme northeastern edge of the site, to create a strong relationship between the new library, and the previous main DC Carnegie Library, the Carnegie Library. The placement of the hierarchical building in this location also creates a visual gateway to the site, when one arrives via New York Avenue (fig 101).

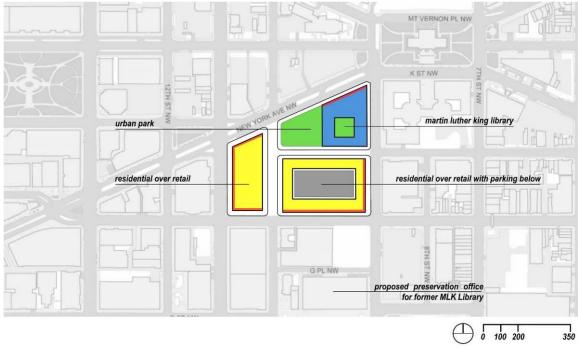


Figure 101-Drawing showing the programmatic relationships and urban design strategy

To the southern edge of the site is a 4 level exterior parking structure wrapped by 7 levels of residential. Retail options line the ground floor of the building, lining both I and H streets. To the west of the site is another residential building, terminating I street (fig 102). The street does not continue through the entire site as I street is not highly trafficked, and the placing of the building in this location permits a simpler unit layout, and a stronger street along 11<sup>th</sup> street. There is also ground floor retail lining New York Avenue, 11<sup>th</sup> and G streets

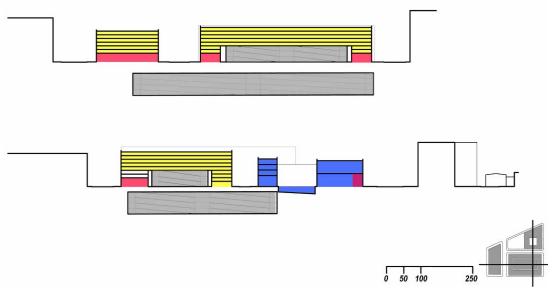


Figure 102-Drawing showing the height relationships of Parti I's buildings-the library is shown as a courtyard building. Also shown is the relationship between the parking garage and the retail above

There is a large public green associated with the library, located to the west of the site (fig 101). The public green would provide a place for public interaction and display, and offer a pastoral view for library patrons. The public green may extend into the building, creating a large garden atrium within the building, blurring the line between inside and outside.



Figure 103-Drawings showing an axonometric view-illustrating the relationship between the project and the context. Also a perspective view from northeast of the site showing the new city landmark of the library



Figure 104-Drawing showing the plan orientation of Parti I. The buildings and urban design may be too simple for the complexity of the program requirements

The building scheme for this parti creates a clear separation between programmatic elements sectionally. The theatres are placed in the basement, the large lobby with associated program and half of the administrative spaces on the ground floor, administrative functions create a mezzanine level between the ground and first floor, and the double height reading room and stacks occupy the second floor (fig 105).

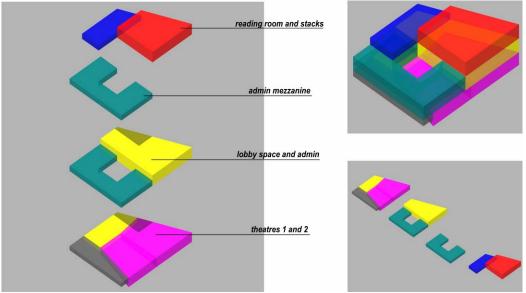


Figure 105-Diagrams showing relationship of building elements for Parti I. Theatres occupy the lower level, lobby and admin on the ground floor, admin on the mezzanine, and the stacks and reading room on the second floor

This scheme could be strengthened by a more complex urban design. The scheme seems to be too much of a reaction to the L'Enfant plan. The strategy should be further developed, to further define the program and thesis, while testing history. The building itself is also fairly simple, with theatres located in the basement, hidden away from public view and display. The theatres can be defined as the heart of the building, the spaces for use by everyone at any hour. They may be more object-like in the building to illustrate their availability.

#### Parti II: Library Fronting a Park

This parti builds on the first, but adds a higher level of public open space. As in the first parti,  $10^{th}$  and I street are extended through the site. I street now jogs through the site, deviating its path around MLK Library. There is also the addition of another, secondary street,  $9\frac{1}{2}$  street, which is of a more residential character. The Library is placed to the northwest of the site, turning the corner of  $11^{th}$  street and New York Avenue, and terminating I street (fig 106). This siting of the Library in this area creates a prominient visual statement and provides a large amount of street frontage along two major streets.

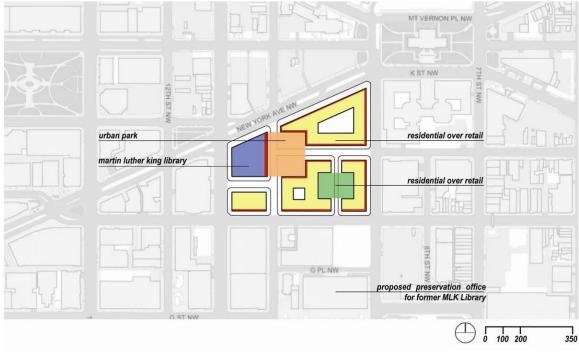


Figure 106-Drawing showing the urban design strategy for parti II. The building massing and their uses are also shown, as well as the two major open spaces

To the northeast of the site is a large housing component, holding the corner of New York Avenue and 9<sup>th</sup> street. The building holds the street edge along New York Avenue, creating a more urban environment. More housing occurs to the southeast of the

site, again holding the street edge, but creating perhaps a more intimate and private housing environment. There is ground floor retail fronting most of the major streets in the project, offering destination and convenience retail (fig 107).

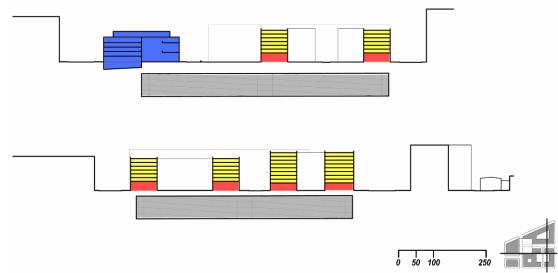


Figure 107-Drawing showing the height relationship to the surrounding context. An underground parking garage is developed to provide parking requirements. Also shown is the ground level retail lining most major streets

The focus of this parti is the large public open spaces. There is a plaza to the east of the Library, perfect for exhibitions and interaction. The streets run over this plaza, but could be closed if a performance were being held. The car is an invited guest in this scheme. A second open space occurs in the residential development to the southeast of the site. It is a more intimate scale, primarily for the residents of the buildings which front it, not the residents of the city. It promotes social interaction between small groups or individuals.

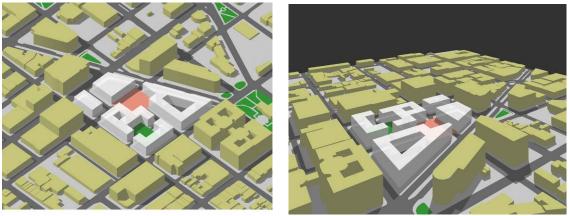


Figure 108- Drawings showing an axonometric view-illustrating the relationship between the project and the context. Also a perspective view from northeast of the site showing the street frontage along New York Avenue and the major public space at the center of the site



Figure 109-Drawing showing the plan organization of Parti II. The semi-public green space is reminiscent of the existing formal greens

The building scheme for this parti expands on the thinking from the first parti, with the ground floor comprised of lobby only, creating a large open space for interaction and events. The theatres are handled more like fragile objects, suspended over the lobby

space. The model for this is Peckham Library, whose overhead pods create a sense of curiosity and adventure. With the overhead pods, the theatres seem more accessible and part of the building. The theatres are staggered horizontally, and are on two distinct floors, to create a higher sense of promenade and hierarchy. The administrative spaces occupy the southern façade of the second and third floors, while the reading room and stacks are found on the fourth floor (fig 110).

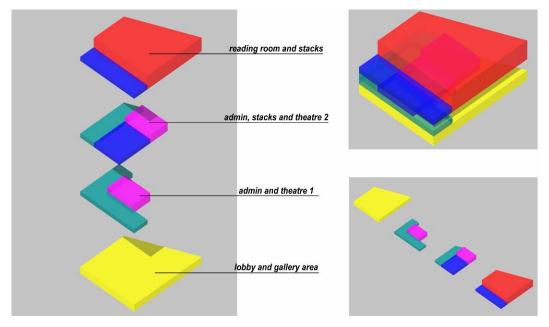


Figure 110-Diagram showing the arrangement of program. The theatres are suspended above the main lobby, creating a sense of hierarchy and exploration. The lobby occupies the entire ground floor, providing space for a variety of program elements

This scheme may be strengthened by a more simplistic urban layout. As parti I was overly simplistic, parti II seems to be overly complex, losing the clarity of the L'Enfant plan and possibly creating an overly dense development. The Library is more dramatic in program arrangement-creating a modern Library for the 21<sup>st</sup> century and beyond.

# Parti III: Library in the Park

This parti aims to create a distinct project within the city. Every street is cut through the site and made pedestrian only. Also, the corners of the site are opened, to further increase porosity (fig 111). There is a clear path form the Carnegie Library to the ceremonial open space to the south of the Library, creating a path from history to the future. The MLK Library is located at the center terminating 10<sup>th</sup> street, creating a direct relationship with the Mall to the south. This scheme aims to crown the pedestrian as king, with no vehicular access through the site. The Library is elevated off the ground, elevating the visitor off the ground plane and into the sky, to give views to the south and north (fig 112).

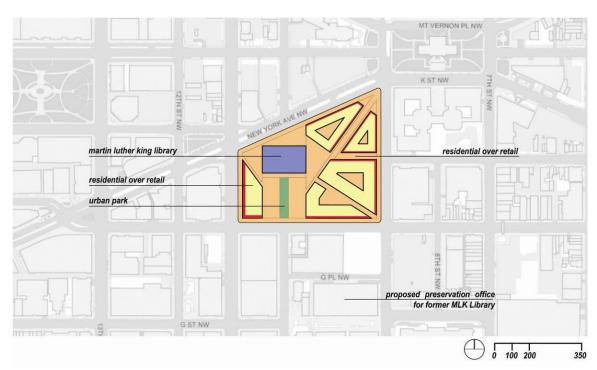


Figure 111-Drawing showing the relationship between MLK Library and the supporting residential buildings. The existing streets are extended through the site along with many diagonals leading to the library and through the site, leading to the Mall

The support buildings bow to the urban design, providing a view corridor between two buildings, terminating on the MLK Library. Because of this, there are no backs to these buildings, all buildings have multiple fronts. Ground level retail is placed along both existing vehicular streets and proposed pedestrian only paths, to increase community and activity.

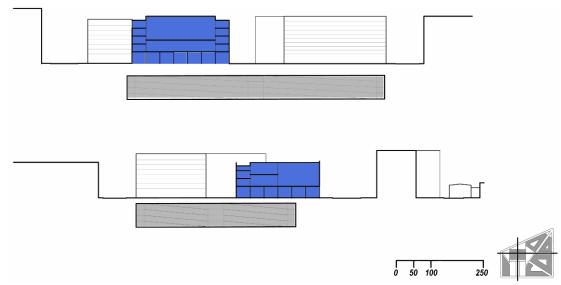


Figure 112-Drawing showing the height relationship between the MLK Library and the support buildings. The Library has been pumped up in scale to compete with existing buildings

The entire site is made into the public realm, maximizing the porosity of travel. The site can still be seen as a superblock in parti, with no vehicular access through it, but the view corridors through the site create an open feeling. Also, with MLK Library at the center of this site, with no vehicular travel around it, the building has a higher level of importance, the urban design bends to the importance of this object building.



Figure 113-Drawings showing an axonometric view-illustrating the relationship between the project and the context. Also shown, a perspective view from the northeast of the site showing the pedestrian path from Carnegie Library to the MLK Library Plaza.



Figure 114-Drawing showing the plan organization of Parti III-the numerous paths lead through the site and to other prominent intersections. The Library is the central building, terminating 10<sup>th</sup> street

The building scheme is also divergent in nature; the entire building is elevated into the air, to allow the plaza, and the pedestrian, to travel under the building. The first floor is comprised of administrative areas and the grand lobby, while the second floor

houses more admin spaces and the elevated theatres. The third floor contains the stacks and the reading rooms (fig 115). This building, like the others of this parti, has no back façade. This building truly is an object, a jewel within the urban environment.

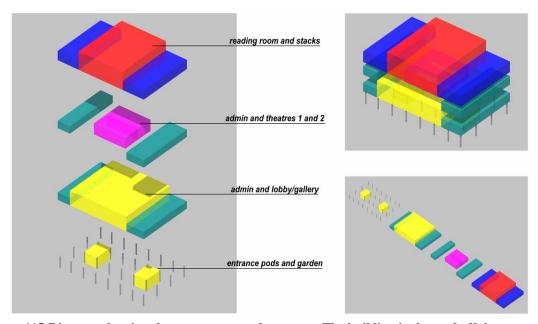


Figure 115-Diagram showing the arrangement of program. The building is elevated off the ground plane, with admin and lobby program on the first floor. The theatres are again suspended over the lobby and share the second floor with other admin spaces. The third floor contains the stacks and large reading room

The urban design of this scheme produced a high number of angular residential buildings. Laying out the units of these buildings may prove difficult. Also, totally eliminating the traffic access through the site may be seen as promoting the same superblock strategy of the existing structure. Designing a library with no discernable back, to load and serve the building, may prove a difficult problem to solve.

#### **CHAPTER IV- Design Conclusions**

#### **Urban Conclusions**

The thesis is an opportunity to test a theory. An idea is identified for further investigation, and through the design process, this proposal is tested and refined. This thesis has been altered, transformed and refined into a practical and realistic design product. The design process for this thesis has resulted in a greater understanding of the idea of object places and object buildings, and how these can be woven together to increase a user's experience. Also, the notion of mixed uses in urban environments, working at a variety of scales is a main theme of the thesis. Furthermore, the idea of grand procession and circulation, both at the urban scale, and the scale of the building was explored, but the most important theory learned is how people use the built environment, and how the built and natural environments can be interwoven and connected. The final scheme is driven by these main themes, with the desire to create an imageable place for those who live work and play in Washington D.C.

The four fabric buildings are arranged on the site to both continue the street edge, and to protect the pedestrian. The fabric buildings are mixed use, with retail on the ground floor, providing small scale shops and larger scale restaurants to serve the needs of residents of the area. The residential component averages 120' to maximize both the urban feel of the project, while increasing the density of Downtown D.C.

The street network works with the historic L'Enfant design, but adds a pedestrian quality. The most significant alteration for the site is the re-insertion of 10<sup>th</sup> street, a connection between Maryland and the National Mall. I street is also returned to the site, yet terminates on a major object-the entry to the urban grocery store. A pedestrian street

leads from the northeast corner of the site, across I street, and ultimately leading to the large public plaza. The pedestrian street is designed to lead the user of the new convention center through the site, leading them to an object space, and present them with an object building, the new Martin Luther King Memorial Library.

The plaza itself is designed to be both a dynamic active space for both formal and informal activities. The plaza was placed at the southern edge of the site, bounded on the south by H street; to further include and invite the community surrounding the site into the space. By not placing this major place in the center of the scheme, which would then be surrounded by residential fabric buildings, there are no questions of ownership-the space belongs to everyone, not just those living in the site. During most days, the plaza will be very active, with café tables in the space, and restaurants ringing the plaza, inviting those who work live and visit the area to interact and enjoy the space. At certain times, exhibitions may take place to increase the formal use of the space. Events like school plays, art exhibitions, and movie screenings can occur in this space, again bringing together people who live work and play in this area of the District.

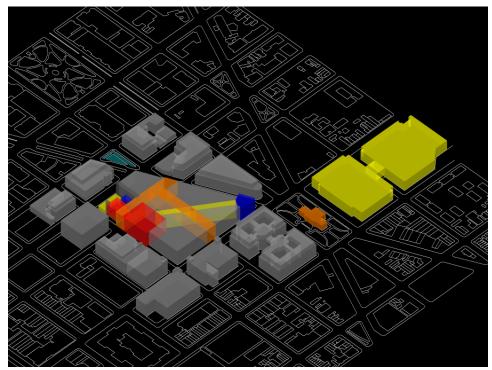


Figure 116-Diagram showing the major spaces and objects around the site-the new convention center, Carnegie library, 10<sup>th,</sup> I and the pedestrian path, the plaza, and the main spaces within the MLK Library

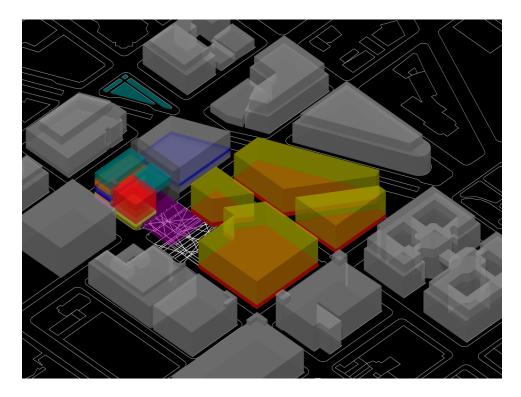


Figure 117-Diagram showing the programmatic elements of the context buildings and the library-illustrating the complexity of the site-and the three scales of mixed-use

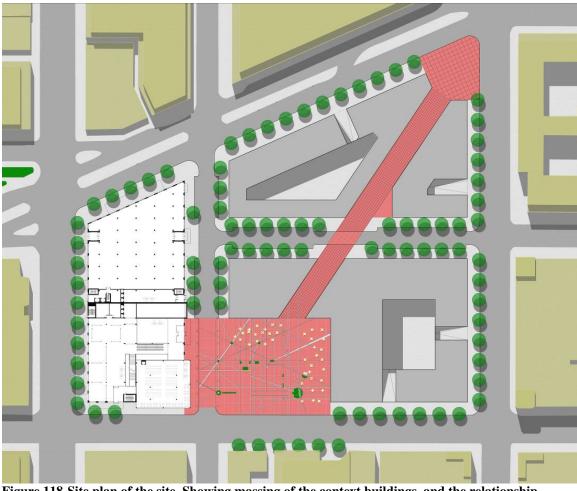


Figure 118-Site plan of the site. Showing massing of the context buildings, and the relationship between the two main objects, the plaza and the library. The procession leads from the northeast corner of the site along the pedestrian path, across I street, and into the large plaza. From this plaza, the visitor can then enter the Library, or continue on to the Mall. The drawing also shows the ground floor of the Library and the urban grocery store. Program on the ground floor includes the art gallery, café and the mezzanine bookstore.



Figure 119-Context montage with site plan. This image shows the relationship between the new convention center, Mount Vernon Square, and the procession through the site, leading to 10th street



Figure 120-Aerial view showing relationship to context buildings, mixed-use buildings on the site, the library, and the plaza



Figure 121-Aerial view showing the three main elevational parts of the library, the translucent prism, the clear glass curtain wall, and the opaque buffer between the library and the mixed-use building to the north

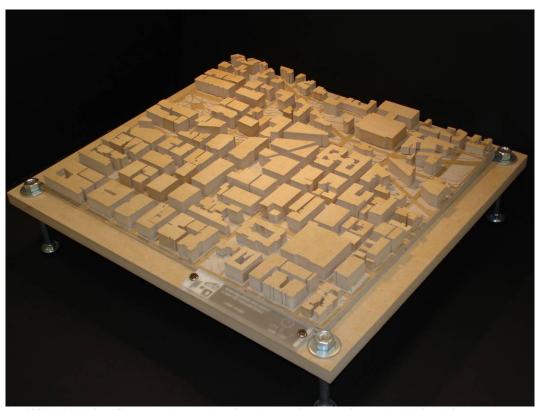


Figure 122-Model view from southeast-showing the project massing and relationship to context buildings

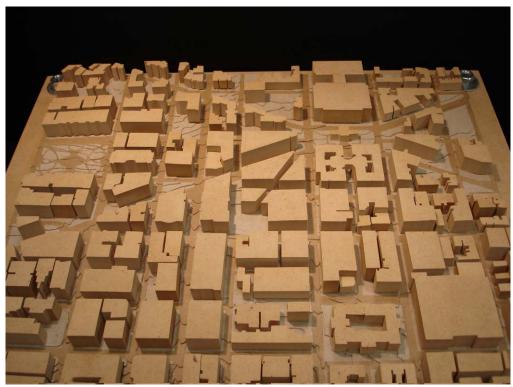


Figure 123-Model view from the south showing the plaza and its relationship to 10th street, and the diagonal pedestrian path leading from the convention center to the plaza



Figure 124-Model view from the southeast, showing the context buildings, the library and the major urban design intentions

## **Library Conclusions**

The decision to redevelop the old convention center site as an active community with a variety of uses and residents came after an in-depth analysis of the site and surrounding areas' characteristics and analysis, the investigation of the quality of nearby neighborhoods, the adjacency to the monumental core of D.C., and the large tourism aspect of this portion of the city. The mixed-use buildings were designed to add to housing density on this area of Downtown D.C., raising the number of permanent residents into the city, increasing activity to this area, resulting in a heightened experience for all those in the city.

The conclusion that a new Martin Luther King Memorial Library should be the jewel of the site came after the realization that the existing MLK Library is in such disrepair, that it may result in the decreased usage of libraries, and the possible decline of the desire for education. The building is located at the southwestern corner of the site, at the intersection of H and 11<sup>th</sup> street. The Library is located to the western edge of the plaza, to create a relationship between these two important spaces. The building itself is party-wall construction, with a mixed-use building occupying the northern half of the site. This northern half building is at the intermediate scale of mixed-use, with the ground floor being occupied by a grocery store, two levels of stacks above, followed by 5 levels of office. The office space is included for two reasons: it is a revenue generator for the Library, as the city can lease the area out to a tenant to help defray the cost of the public building. Another reason for the office component is the possibility for library expansion. As the library grows, it can take over another floor of office space, ensuring the MLK

Library does not become "landlocked", unable to expand-or contract-as needed, resulting in an underachieving building, or relocating the entire collection to a new building.

The parti for the Library was driven by the desire to place the main public spaces, the reading rooms and large public meeting room, on the eastern face of the building, to have a relationship with the large plaza. Another strong design element is the 4 story atrium in the lobby of the building, which serves to unite the public levels of the building, and creating visual links from the main public floors. The large atrium added with the escalators in the main lobby combine to create an intuitive path for Library patrons. The visitor immediately knows how to circulate the building, as all public needs are presented before him.

A major theme for the programmatic functions of the building is the idea that the library is a changing typology. As seen in many contemporary examples, the modern library is no longer a two-liner, stacks and reading rooms. The goal of these new buildings is to increase awareness and interest in reading and education by introducing public program elements which add to the curiosity of the building, while providing additional public uses for the enjoyment of the community.

The ground floor of the MLK Library holds some of these types of functions: a small art gallery which can exhibit either traveling art exhibitions or artwork by local artists or schoolchildren; a café which is adjacent and highly visible to and from the plaza; and a bookstore, which is located on a mezzanine level, facing the plaza to the east. Above the ground floor, the building is divided horizontally into three zones: stacks, classrooms and office/meeting. Each zone is 30' in height, and each has a mezzanine level, splitting a portion of the area into two 15' levels. This vertical division creates a

dynamic section, and increases the power of the reading rooms and the main public meeting space, the only spaces which are the full 30' in height. The lower level of the Library contains another public amenity, 12 movie theatres. The movie theatres are seen as both a revenue generator for the Library, and an "edu-tainment" option, screening mostly documentaries about Martin Luther King and Washington D.C. during the daytime hours, while becoming a first-run multiplex during the evening hours. The theatres would remain open late into the night, with a direct entrance to the street along H street, so the theatre can remain open while the Library is closed. The service portions of the two buildings are located at the party wall. All the elevator service, firestair, restrooms and mechanical space are located in this portion of the building on every floor. This space was derived by a regulating line from a context building, thereby splitting the building, defining the poche and the object.

The materials of the Martin Luther King Memorial Library and their usage aid in the definition of hierarchical elements within the building. The major spaces are housed within a jewel-like prism, a fritted translucent glass which allows diffused light into the main spaces, while also permitting a view out-to the plaza, down 10<sup>th</sup>, 11<sup>th</sup> and H streets, and to the many context buildings. The clear glass curtain wall surrounds most of the remaining building faces, always providing a view out to the surroundings. The main circulation path is terminated in a concrete panel system which holds a firestair, anchoring this important path, dividing the reading room prism and curtain wall system on the southern elevation. Since it is an opaque material, and not another viewing area, this causes the visitor to turn, and enter the reading room, which then affords the best view-to the large dynamic plaza.

The mixed-use building to the northern half of the site picks up on the materials used in the Library, they are buildings designed as two disparate entities, yet they share a common language. The protruding bays of the mixed-use building echo the prismatic reading room, the concrete panels are identical to the system used on the MLK Library. Also, the large human scaled base runs along the length of the mixed-use building, and around the three facades of the Library. Along the northern façade of the mixed-use building is a canted glass curtain wall, leaning over the sidewalk along New York Avenue. This monumental elevational articulation was included as New York Avenue is a more monumental street.

Overall, this project was designed for the community. All the major themes of the thesis had the community at its heart. The increased residential component adds density to downtown, reinvigorating this area, which exists as predominately office space. The retail options aim to serve all the needs of those who live in this area, while becoming a node of retail and activity in Downtown. The insertion of a new D.C. landmark, the Martin Luther King Memorial Library, serves to re-introduce the public to the pleasure of learning, while illustrating the library as a changing dynamic.

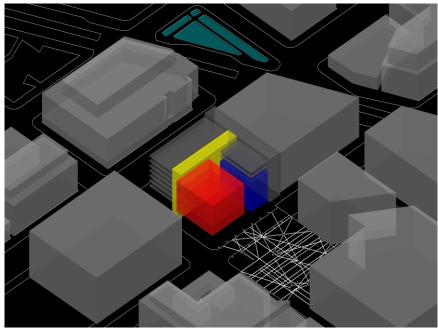


Figure 125-Diagram showing the parti of the Library. The reading room and meeting spaces, the large atruim, and circulation spine are the major components of the design



Figure 126-Stacks, stacks mezzanine, and classroom plans. These drawings show the relationship between voids, and the relationship between the stacks levels, and the office component



Figure 127-Classroom mezzanine, office and office mezzanine plans. These drawings further emphasize the horizontal stacking of the building, and the relative sizes of program pieces

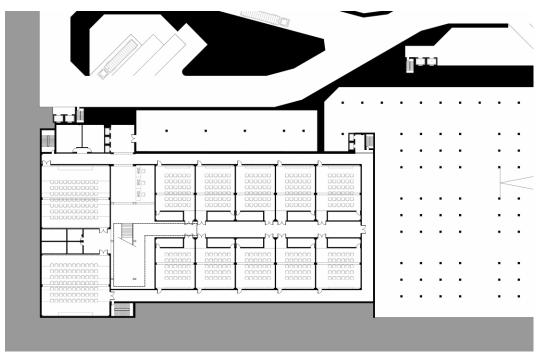


Figure 128-Theatre plan. This drawing shows the 12 theatres and their relationship between parking and service functions. This programmatic element aids in the increase of public interest



Figure 129-Main building section showing the relationship between the major public spaces, and the plaza. Also shown are other public program pieces, and the parking levels below the building



Figure 130-Building section showing the Library and mixed-use building. This drawing shows the escalators, the main vertical circulation between public floors, and the reading rooms and main public meeting space. the drawing also shows the mixed use buildings' differing programs, with the grocery store, stacks levels, and office space above



Figure 131-Site section showing the relationship between the major spaces, the plaza, and the context mixed-use building. The drawing also shows the relative heights of programmatic functions



Figure 132-East elevation, showing the difference between the Library and the mixed-use building to the north, and the similar language between the two buildings



Figure 133-West elevation showing the difference between the north and west facades, and the level of transparency of the glass curtain wall



Figure 134-View of southwest corner-showing the tripartite division of the southern facade, with translucency, transparency and opacity. The protrusion on the western façade relates to the stacks levels, increasing the hierarchical reading

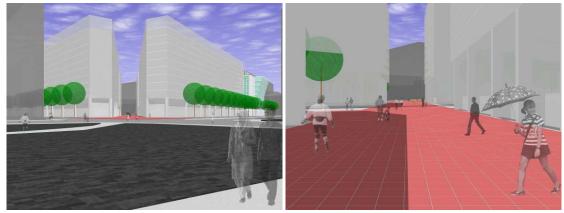


Figure 135,136-Processional views-from Mount Vernon Square, and from the pedestrian path, looking to the main plaza

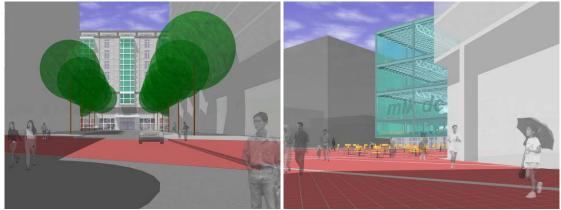


Figure 137,138-Processional views from I street looking to the grocery store entry, and from the pedestrian path, where the visitor gets the first view of the MLK Library

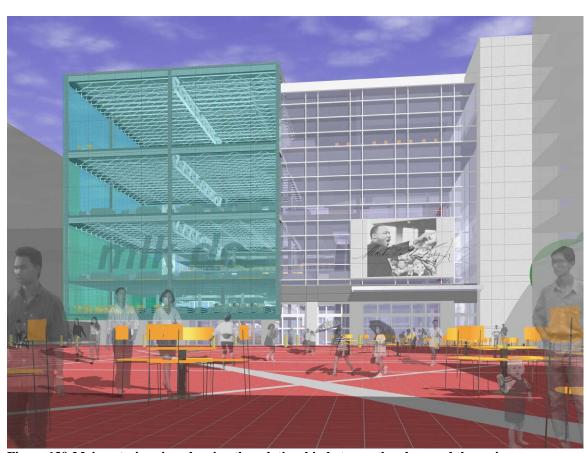


Figure 139-Main exterior view showing the relationship between the plaza and the main spaces within the building. The signage on the eastern edge can show the power of the namesake of the building, a new art exhibition, or a cinema event

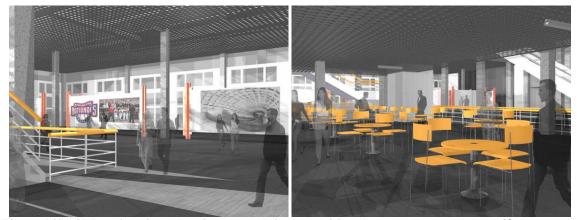


Figure 140,141-Interior views showing two public ammenities, the art gallery and the café



Figure 142-Main interior view-from main entry looking to the stacks levels. The escalators to the left let the visitor know how to use the building

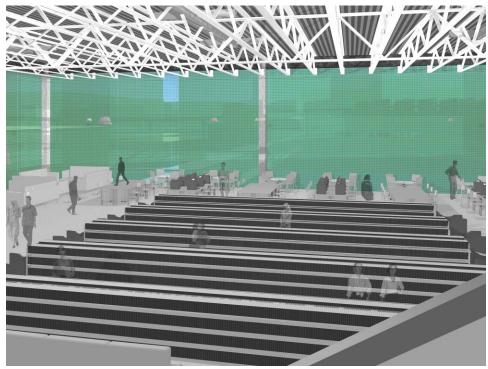


Figure 143-View to reading room from escalator. The reading room spaces are column free to allow the maximum amount of variation

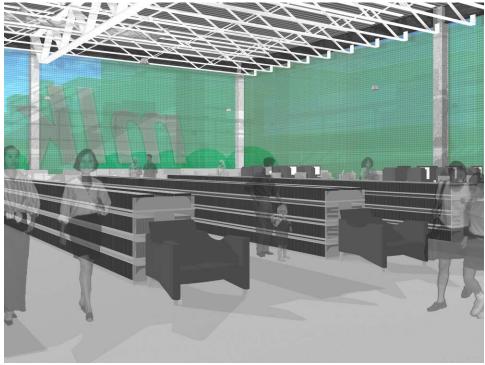


Figure 144-View within reading room showing the relationship between the building and the context buildings



Figure 145-View of computer classroom-these spaces will be utilized by continuing education classes for community residents and visitors



Figure 146-View of major meeting space-for large public meetings. This space has a strong relationship with the plaza, being located on the eastern edge of the building

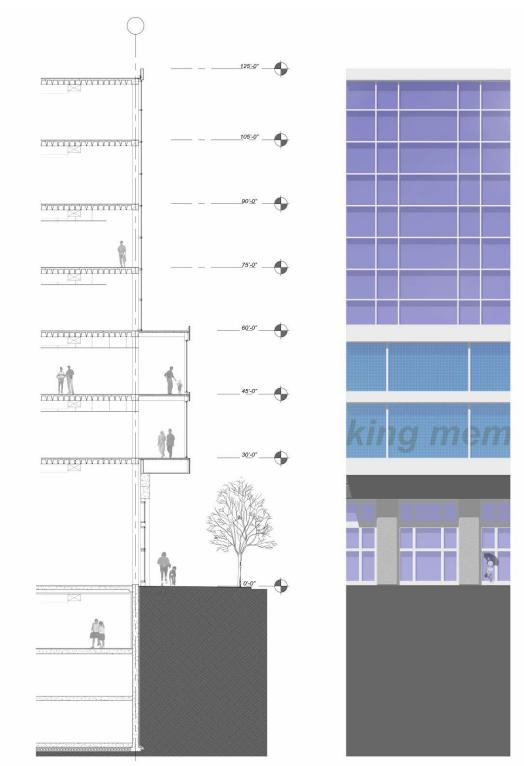
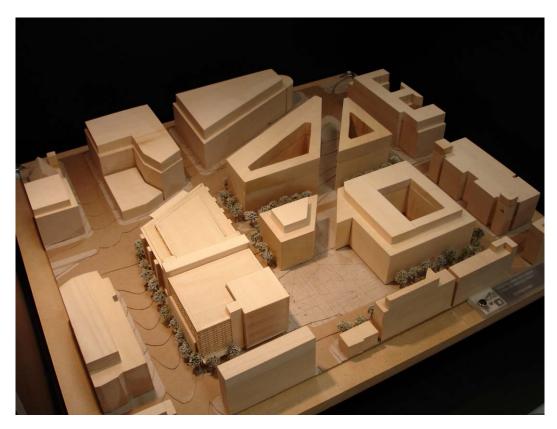


Figure 147-Wall section through western elevation, showing the three main parts of the facades, the glass curtain wall, the translucent glass in the reading rooms and stacks areas, and the ground level bay system



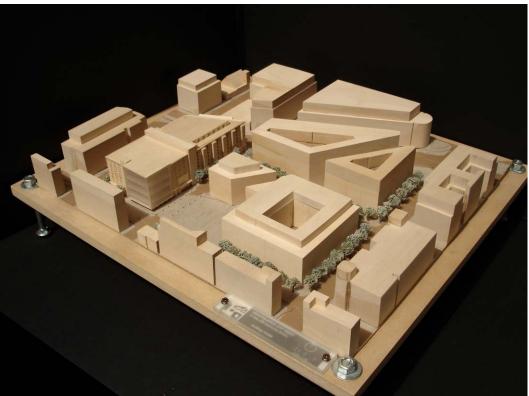


Figure 148,149-Model views showing the building and it's relationship between site and context





Figure 150,151-Model views showing the relief in the east elevation





Figure 152,153-Views of model showing the northern facade and the northwest corner of the mixed use building

<sup>&</sup>lt;sup>1</sup> http://www.recentpast.org/types/library/mlklib.html.

<sup>&</sup>lt;sup>2</sup> Ibid.

<sup>&</sup>lt;sup>3</sup> http://www.dcpreservation.org.html.

<sup>&</sup>lt;sup>4</sup> Waak, Erica. DC Library Officials Mull Replacing MLK. The Common Denominator. April 2002.

<sup>&</sup>lt;sup>5</sup> Fenton, Joseph. <u>Hybrid Buildings</u>. New York. Pamphlet Architecture No. 11. 1985.

<sup>&</sup>lt;sup>6</sup>Albert E. Cowdrey. A City for the Nation: The Army Engineers and the Building of Washington D.C., 1790-1967. Washington: U.S. Government Printing Office, 1978. p. 1.

<sup>&</sup>lt;sup>7</sup> ibid

<sup>&</sup>lt;sup>8</sup> District of Columbia Municipal Planning Office Site Selection Analysis for a Civic Center. p. 1.

<sup>&</sup>lt;sup>9</sup> Ibid. p. 9.

<sup>&</sup>lt;sup>10</sup> Ibid. p. 55.

<sup>&</sup>lt;sup>11</sup> Ibid. p. 59.

<sup>&</sup>lt;sup>12</sup> D.C. Office of Planning. Downtown Action Agenda. Washington D.C. 2000 p. 15.

<sup>&</sup>lt;sup>13</sup> Extending the Legacy. National Capital Planning Association. 1996.

<sup>14</sup> Ibid

<sup>&</sup>lt;sup>15</sup> "Title 11." <u>District of Columbia Municipal Regulations.</u> Section 720.11-720.12.

<sup>&</sup>lt;sup>16</sup> DC Office of Planning. <u>Downtown Circulator.</u> 2004. p. 2.

<sup>&</sup>lt;sup>17</sup> Ibid. p. 7.

<sup>&</sup>lt;sup>18</sup> Regional Climate Analysis and Design Data. Washington: AIA Press, 1951. p. 14-15.

<sup>&</sup>lt;sup>19</sup> Dana Hedgepeth. <u>Three parties-the DC administration...</u> Washington Post. May 24, 2004. p E03.

<sup>&</sup>lt;sup>20</sup> Ibid

<sup>&</sup>lt;sup>21</sup> Pre-proposal Conference Presentation. October 2001.

<sup>&</sup>lt;sup>22</sup> Ibid.

<sup>&</sup>lt;sup>23</sup> Ibid.

<sup>&</sup>lt;sup>24</sup> Sudjic, D. Keep Your Eyes on the Prize. *Observer Review*. October 2000.

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