

Multi-Scalar Perspective in Civic Architecture and Design

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Master of Architecture
in Architecture

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ABSTRACT

In the field of urban planning, environmental psychology studies human relationship to places and settings, which are then categorized as the public's identities, attachments, and dependencies. Of interest to city planning, these findings can also be utilized in a design methodology. By giving particular attention to civic programs, this thesis presents a model for multi-scalar architecture and construction of place meanings. With urban, political, and historic networks contributing to place categories, ecological evolution provides developmental trajectories that can then be manifested through architectural design in civic and cultural institutions within city centers. From site selection through the design and execution of the project, the precedence is led by the people of past, present, and future, and the spaces they celebrate. The following is about the County of Arlington Civic Center, a multi-scalar perspective and design.

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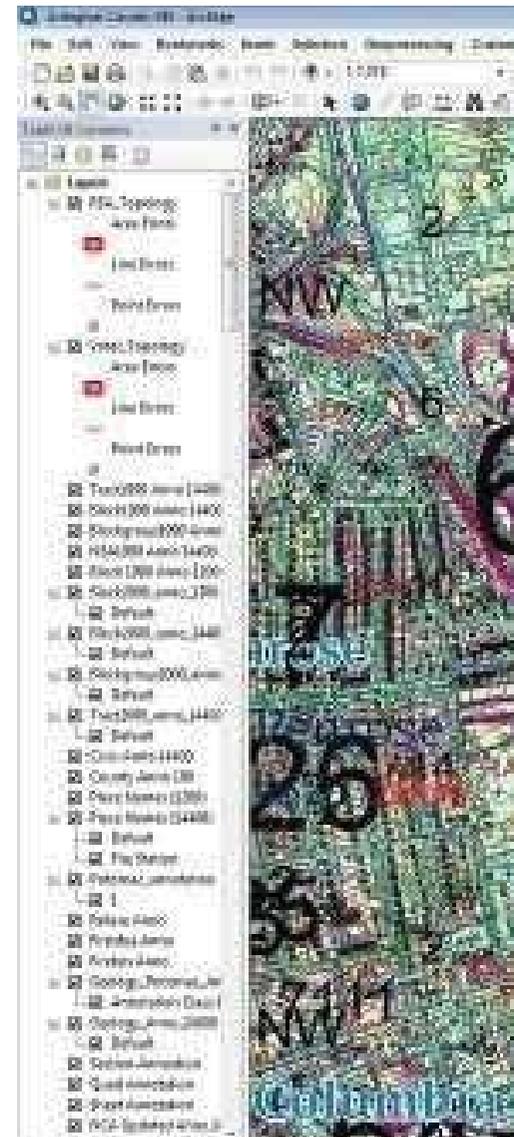
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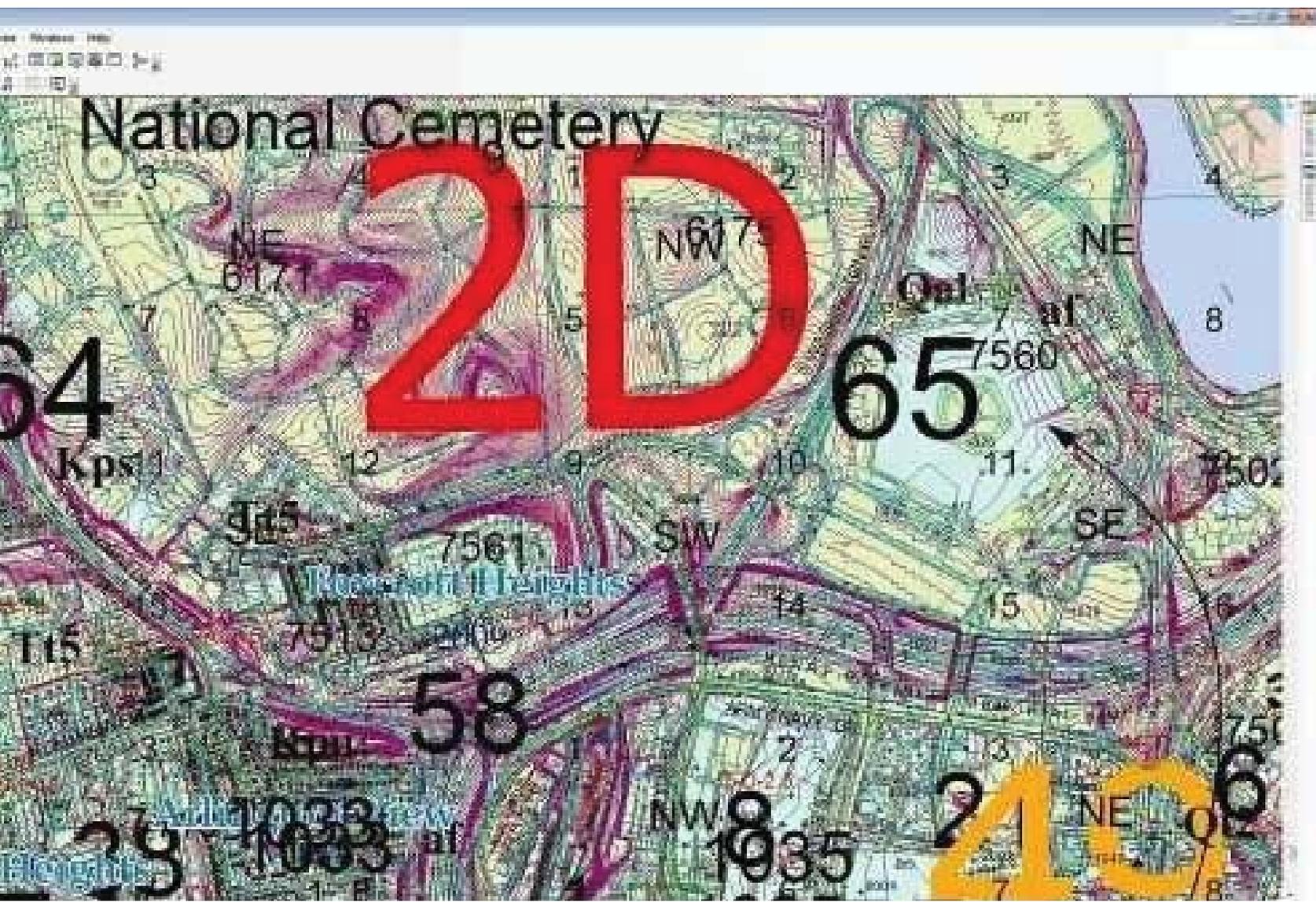


INTRODUCTION

The multi-scalar perspective is an environmental psychology method that analyses a place setting, site, or other environment through multiple lenses and scales of their context and demographic. By applying this method to an architectural thesis, the practice of design and place-making can achieve a more in-depth redevelopment that integrates with the existing fabric, and reinforces the people's place attachments.

This thesis is a compilation of work that begins with researching precedents that have exercised innovative methods of urban networking and redevelopment in its time. The study will then identify a site in Northern Virginia. By using the multi-scalar perspective as an analysis methodology, urban opportunities and potential will be cross referenced with ecological needs to generate a necessary program. These findings will then aid in the design process of an urban and architectural solution, that is municipal in nature, and necessary for the continued success of a thriving community.





Historic Precedents

In the search for examples of successful urban renewal an interest piqued with the instances involving federally regulated organizations. The government's presence in Washington, D.C. and the surrounding area is perpetual, but not always consistent in growth. Just as any other community, federal institutions have experienced fluctuations in program, size, and rates of change. The following examples and their histories offer great insight to their individual occurrences of establishment and/or redevelopment.

I. Smithsonian Institution

In 1846, the Smithsonian Institution was established with the help of James Smithson, a British scientist who bequeathed his estate to the United States in order to conceive what he requested to be, “an establishment for the increase and diffusion of knowledge,” (Smithsonian Institution, 2014). The institution has since developed into the world's largest urban concentration of museums, galleries, and research centers. However, these facilities are only the tip of the iceberg at the Smithsonian. At the core of the institution is a vast network that “[serves] as a conduit, linking government, commercial, and scientific interests,” (Meringolo, 7).





Above: Arlington National Cemetery, photo by Ann Marcum

This conduit is like a thread in time that existed from the early beginnings of the nation’s history. The Smithsonian and its networks are actively vested in archiving and preserving the past so its history shall be available to future generations. Public history, the practice of history for public consumption, highlights and follows cultural, ecological, and economic values. A unique feature of the Smithsonian is its ability to maintain an active urban presence in Washington, D.C. While the Smithsonian has a vast network, the focus will always have a part with its connections with the local community. A total of nineteen museums and galleries exist downtown on and around the National Mall, with the National Zoo, and research facilities throughout. This multiplicity in scope seems beneficial to long-term success in attracting the participation of locals and attention from visitors from across the globe.

II. National Park Service

Since the Smithsonian’s establishment, architectural and environmental preservation are as key to their successes and values as public history. To do this, the Institution works closely with the National Park Service. In Washington, D.C. the National Park Service maintains and preserves the grounds of the National Mall and all of the monuments and memorials. Since it’s founding in 1916, the National Park Service has provided a committed steward to preserve and maintain over four hundred sites. The NPS, while a federal entity, also works with “tribes, local governments, nonprofit

organizations, businesses, and individual citizens [who] ask for help in revitalizing their communities”, (National Parks Service, 2008) and maintains a focus on individual sites and cities the national parks are located in.

Ecologically, the national parks are a very specialized behavior setting, which are a “bounded, self-regulated and ordered system composed of replaceable human and nonhuman components that interact in a synchronized fashion to carry out an ordered sequence of events called the setting program,” (Winton, 49). Because of the smaller frame of reference, and specialization on a site, the Service’s ability to make effective changes that benefit the community can truly have a large and immediate impact.

III. Base Realignment and Closure Program

In addition to Washington, D.C.’s historic landscape, the region is also unique regarding the massive presence of security and architecture, primarily the programs belonging to the armed forces. There are simultaneous—and sometimes overlapping—relationships that a military base and federal facilities can have with various communities. In these modern-day forts, there are the primary users who inhabit the bases, the civilians that occasionally interact with its programs, and the rest of the public that knows little-to-nothing about it. Under certain circumstances, under utilized potential can

be the key opportunity to ecological and urban renewal.

In 1961, President Kennedy pursued an extensive consolidation of military bases in order to reconfigure a military that was facing the newly evolving challenges of the Cold War. Since that time, Secretary of Defence Donald Rumsfeld (2005) has stressed the importance that “subsequent presidents [continue] to refine U.S. military infrastructure as threats to our country have evolved.” In the shadow of our government’s most frequent sequestration, the Department of Defense has proposed a new list of sites that might be eligible for the Base Realignment and Closure (BRAC) Program.

By taking an intrinsic look at the urban condition, the prospects of reutilizing the sites of realigned or closed military bases are high. There have been successes and failures when it comes to the redevelopment of BRAC closures. The armed forces frequently construct independent infrastructure and programs that can be reincorporated into the urban plan. An example of this includes many of the development changes in Arlington, Virginia. Being home to the Department of Defense and the Pentagon, hundreds of offices were heavily affected by the BRAC and moved all personnel out of the commercially leased office buildings in Crystal City. This prompted an effort on the city’s part to revitalize the area in order to attract private companies and contractors as future users.

BRAC-AFFECTED COMMERCIAL PROPERTIES IN ARLINGTON

Submarket	Building Address	Building Name	Owner
1 Ballston	4040 North Fairfax Drive	Webb Building	RESI Management Corp.
2 Ballston	875 N Randolph Street	One Liberty Center	Fred Schnider Company, LLC
3 Ballston	901 N Stuart Street	Ballston Metro Center	Ballston Metro Investors LLC
4 Claren/Courth	2000 N 15th Street	Arlington Plaza	Carr Healy Partners
5 Claren/Courth	2300 Clarendon Blvd	Courthouse Plaza 2	Vornado / Charles E. Smith
6 Claren/Courth	3100 Clarendon Blvd	3100 Clarendon Blvd	Piedmont Office Realty Trust
7 Crystal City	1215 S Clark Street	Crystal Gateway 3	Vornado / Charles E. Smith
8 Crystal City	1225 S Clark Street	Crystal Gateway 2	Vornado / Charles E. Smith
9 Crystal City	1235 S Clark Street	Crystal Gateway 1	Vornado / Charles E. Smith
10 Crystal City	1400-1450 S Eads Street	1400-1450 S Eads Street	Cafritz Company
11 Crystal City	1411 Jefferson Davis Hwy	Jefferson Plaza 1	Lowes Enterprises
12 Crystal City	1421 Jefferson Davis Hwy	Jefferson Plaza 2	Lowes Enterprises
13 Crystal City	1550 Crystal Drive	Crystal Square 2	Vornado / Charles E. Smith
14 Crystal City	1750 Crystal Drive	Crystal Square 3	Vornado / Charles E. Smith
15 Crystal City	1801 S Bell Street	Crystal Mall 2	Vornado / Charles E. Smith
16 Crystal City	1851 S Bell Street	Crystal Mall 3	Vornado / Charles E. Smith
17 Crystal City	1901 S Bell Street	Crystal Mall 4	Vornado / Charles E. Smith
18 Crystal City	1919 S Eads Street	1919 S Eads Street	Vornado / Charles E. Smith
19 Crystal City	200 12th Street S	Crystal Gateway 4	Vornado / Charles E. Smith
20 Crystal City	201 12th Street S	Crystal Gateway North	Vornado / Charles E. Smith
21 Crystal City	2011 Crystal Drive	Crystal Park 1	Vornado / Charles E. Smith
22 Crystal City	2221 S Clark Street	Crystal Plaza 6	Vornado / Charles E. Smith
23 Crystal City	223 23rd Street S	Crystal Plaza 5	Vornado / Charles E. Smith
24 Crystal City	2231 Crystal Drive	Crystal Park 3	Vornado / Charles E. Smith
25 Crystal City	241 18th Street S	Crystal Square 4	Vornado / Charles E. Smith
26 Crystal City	2450 Crystal Drive	Century One at Century Tower	Lowes Enterprises
27 Crystal City	2451 Crystal Drive	Crystal Park 5	Vornado / Charles E. Smith
28 Crystal City	251 18th Street S	Crystal Square 5	Vornado / Charles E. Smith
29 Crystal City	2511 Jefferson Davis Hwy	Presidential Towers	Transwestern Investment Co.
30 Crystal City	2521 S Clark Street	James Polk Bldg	Beacon Capital Partners / Polk & Taylor
31 Crystal City	2530 Crystal Drive	Zachary Taylor Building	Beacon Capital Partners / Polk & Taylor
32 Crystal City	400 Army Navy Drive	400 Army Navy Drive	Lerner Enterprises
33 Rosslyn	1101 Wilson Blvd	1101 Wilson Blvd	Monday Properties
34 Rosslyn	1400 Key Blvd	Nash Street Building	Monday Properties
35 Rosslyn	1401 Wilson Blvd	Oakhill Office Building	Monday Properties
36 Rosslyn	1500 Wilson Blvd	1500 Wilson Blvd	Perzance
37 Rosslyn	1501 Wilson Blvd	Art Associates	Monday Properties
38 Rosslyn	1515 Wilson Blvd	Art Associates West	Monday Properties
39 Rosslyn	1555 Wilson Blvd	Mill Court	BPG Properties
40 Rosslyn	1600 Wilson Blvd	1600 Wilson Blvd	Washington Real Estate Investment Tru
41 Rosslyn	1700 N Moore St	Rosslyn Metro Center	The Clover Company

41 Total Buildings Affected

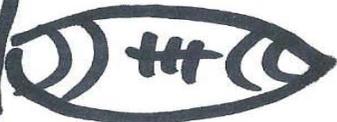
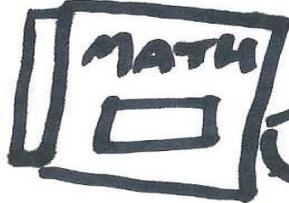
3	Ballston
3	Clarendon/Courthouse
26	Crystal City
9	Rosslyn

BRAC-AFFECTED GOVERNMENT OWNED PROPERTIES IN ARLINGTON

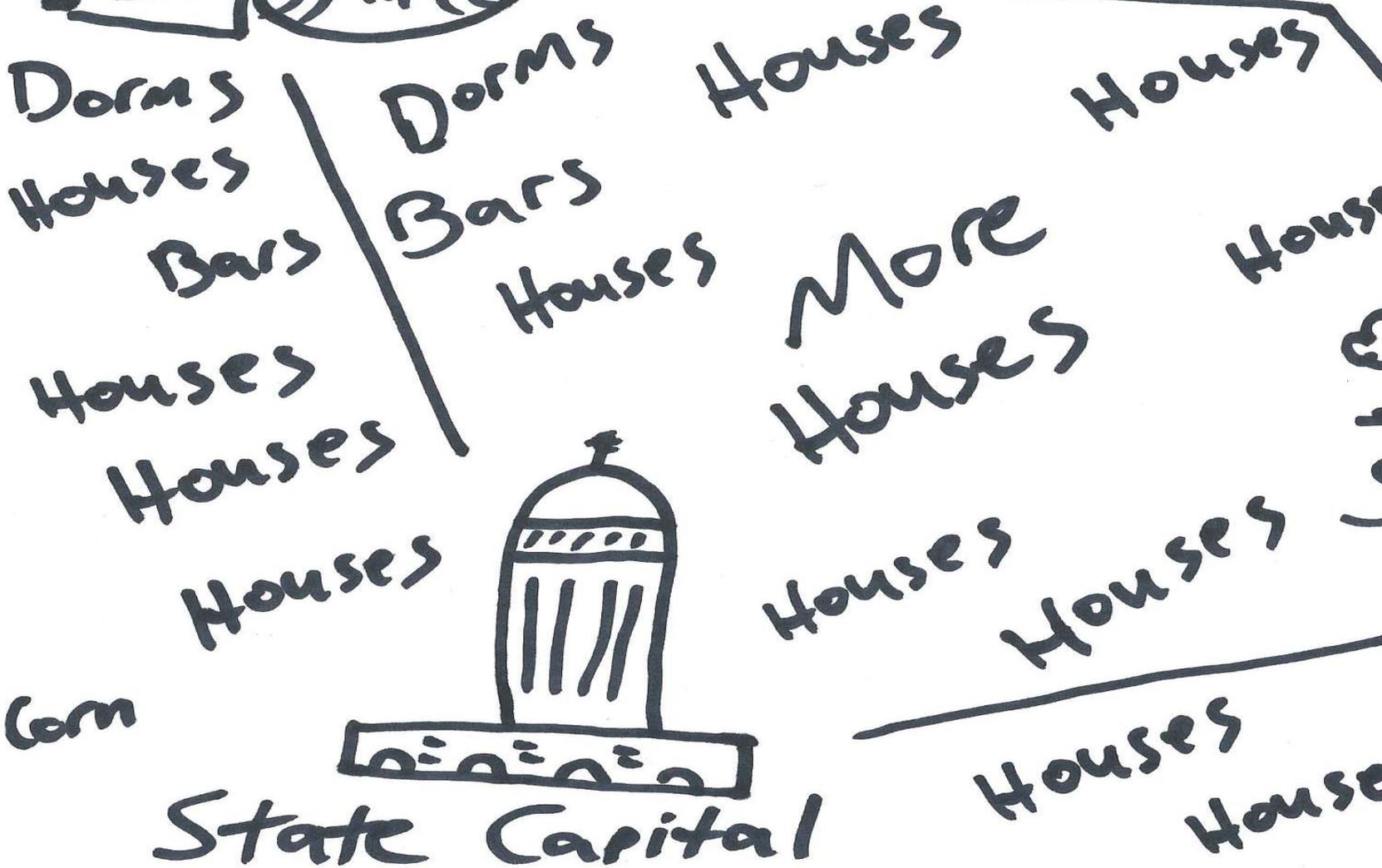
Submarket	Building Address
1 Columbia Pike	Navy Annex
2 Route 50	Army National Guard Readiness Center
3 Route 50	Arlington Service Center
4 Columbia Pike	Joint Base Myer/Henderson Hall
5 Pentagon	The Pentagon

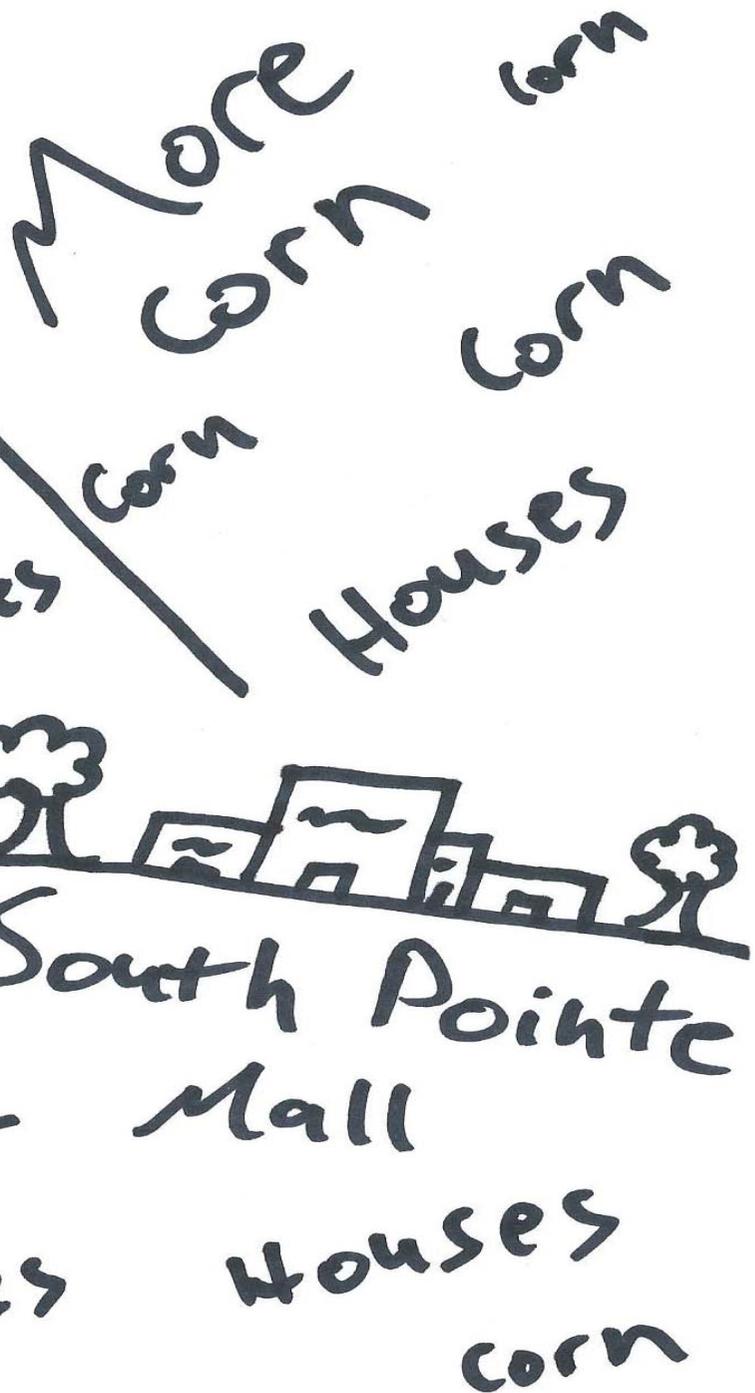


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CHAPTER TWO

Environmental Psychology & Design

With aging infrastructure and growing cities with growing demands, urbanism and urban redevelopment have become emerging leaders in better designing and preparing cities for the future of their populations. There are many typologies in urbanism: New urbanism, adaptive reuse, garden cities, the list goes on. Many of these urban theories are founded in methods to most efficiently re-design a city, or part of it, intrinsically via architecture, infrastructure, zoning, landscaping, or a hybrid of these. However, the construct of society would be nothing without the people. Designing for human interaction and experience-making optimizes the successes of a public space. Space is defined by Rahul Paul as, “an experiential field shaped by emotional and rational tendencies of human behavior and enhanced by the coordination of artistic and scientific means to serve a unitary action that would lead to the total fusion of the social sphere”. This ‘fusion’ that Paul references is best described as the ecological marriage of formerly segregated parts of a society to form an efficient economy that a city survives by.

The field of environmental psychology utilizes a very similar dataset to an architectural site analysis that identifies bonds between people and the places they inhabit.

Place attachment and place identity are two connection typologies that are defined by the form of relationship that an individual has with a place. Place attachment is defined as “an affective bond that people establish with specific areas where they prefer to remain and where they feel comfortable and safe,” (Hernandez, Hidalgo, Salazar-Laplace, & Hess, 312). Place attachment is more personal, active and experience-driven, while place identity occurs in a broader sense at a larger scale. Attachment and identity occur simultaneously, but at different intensities and scales.

In the Hernandez, Hildago, and Salazar-Laplace dissertation, two studies were conducted to see how these psychological mindsets towards place compare and differ between natives and non-natives. The three scales of an urban setting that was studied were of the neighborhood, city, and island. Findings concluded that natives simultaneously possess bonds in attachment and identity, while non-natives had stronger signs of place attachment. For both demographics, the intensity of bonds (identity and attachment) were stronger for the larger comparative geographical scale (island>city>neighborhood).

This thesis hypothesizes that by designing to increase the strengths of bonds for the smaller urban scales, the balance for future potential growth and success would increase proportionally for those areas as well.

This study was helpful in setting up how to illustrate the “psycho-social impact of urbanization processes and to pinpointing the contribution of different special levels of the development of place identity,” (Hernandez et al., 319). The macro, meso, and micro geographic scales are crucial to identify upfront with the urban network, and how they add a regenerative value to the neighborhood, city, and region through spatial and demographic bond units.

First, the needs of each urban scale and their inhabitants will be identified. This way, their connections to each other will be clearly understood and will aid the inter-developed programs. The regenerative effects of urban redevelopment will then have support going into the designs of these programmatic elements, laying out the identifiable components to the larger multi-scalar whole. The multi-scalar perspective is the main environmental psychology component that this design is derived from, characterized by the users, their identities, attachments, and the overall symbiotic relationship of these bonds.

2

Oct. 24, 1995

Northern VA Sun
FILE

Freedman's Village Marker Placed

by NITA RAO
Staff Writer

Evelyn Reid Syphax struggled for 10 years to bring to light one of the less glamorous aspects of the Civil War — its aftermath. Now, with a historical marker unveiled just three days ago, Syphax can be sure that Arlington residents will be less likely to forget the county's integral link with Freedman's Village.

Preceding the end of the Civil War by two years, Freedman's Village was opened by the federal government in 1863 on Arlington Heights, which is now part of Arlington National Cemetery. The settlement was initially established by Congress to provide temporary refuge for escaped and freed slaves who migrated to Washington after the outbreak of the war.

Although Freedman's Village was never intended to become a permanent site, the village gradually expanded to include more than 50 two-story duplex houses; two churches; a meeting hall; a hospital; and even a home for the elderly. At its peak, it boasted more than 1,000 former slaves and their families. As self-

the county's recognition of Freedman's Village. Several generations back, her own ancestors oversaw the village. She is also related by marriage to John B. Syphax, who emerged from the settlement to become the first black delegate to the General Assembly in 1873. Six years later, in 1879, he was appointed Arlington's justice of the peace.

Standing shoulder-to-shoulder with son Craig at the Freedman's Village Historical Marker Dedication held on Saturday, Syphax addressed the small crowd gathered before her at Foxcroft Heights Park, located near the intersection of Washington Boulevard and Columbia Pike, and explained the necessity of passing down the historical significance of Freedman's Village to a new generation of Arlingtonians.

"We're going to make sure that people learn about this [Civil War] through many different avenues," she said.

Following the dedication, Syphax said the marker "will focus attention on the fact that we had the Freedman's Village here. Now we can focus on it with the children, to teach them that once there was such a thing as

"What a time it must have been," marveled Arlington County Board Chairman Albert C. Eisenberg. "To one day be the property of someone else and the next day to be one's own master. How joyous, how uplifting, how exciting, and how frightening that must've been."

"It was a revelation when I found out what a very vital part of our community it was for so many years," said fellow county board member Benjamin H. Winslow Jr.

Margaret Wilson attended the weekend dedication to give respect where respect is due.

"It's a significant piece of history that very few people know about. . . . It's somehow been forgotten and overlooked," Winslow noted.

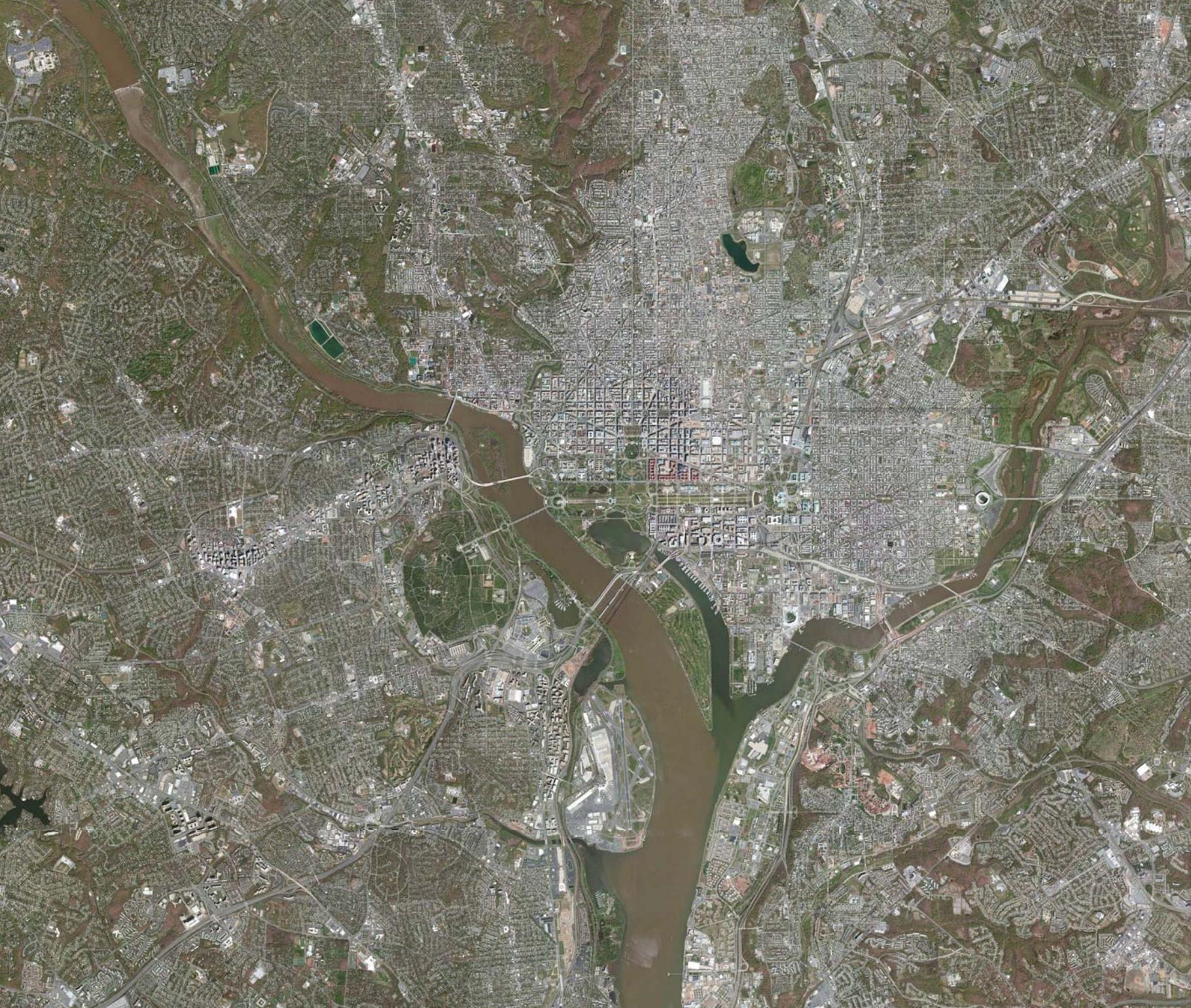
Julian Syphax was another member of the Syphax family in attendance who added his own reasons for commemorating the historical marker.

"Having been born in Arlington, it's really nice to know that finally, we as black people know a history here. Now all Arlingtonians will become aware of the strides and history Arlington's made," Syphax explained.



Evelyn Reid Syphax, lower right, unveiled Freedman's Village's historical marker at Foxcroft Heights Park Saturday.

PHOTO BY KAREN JEWSOCCO

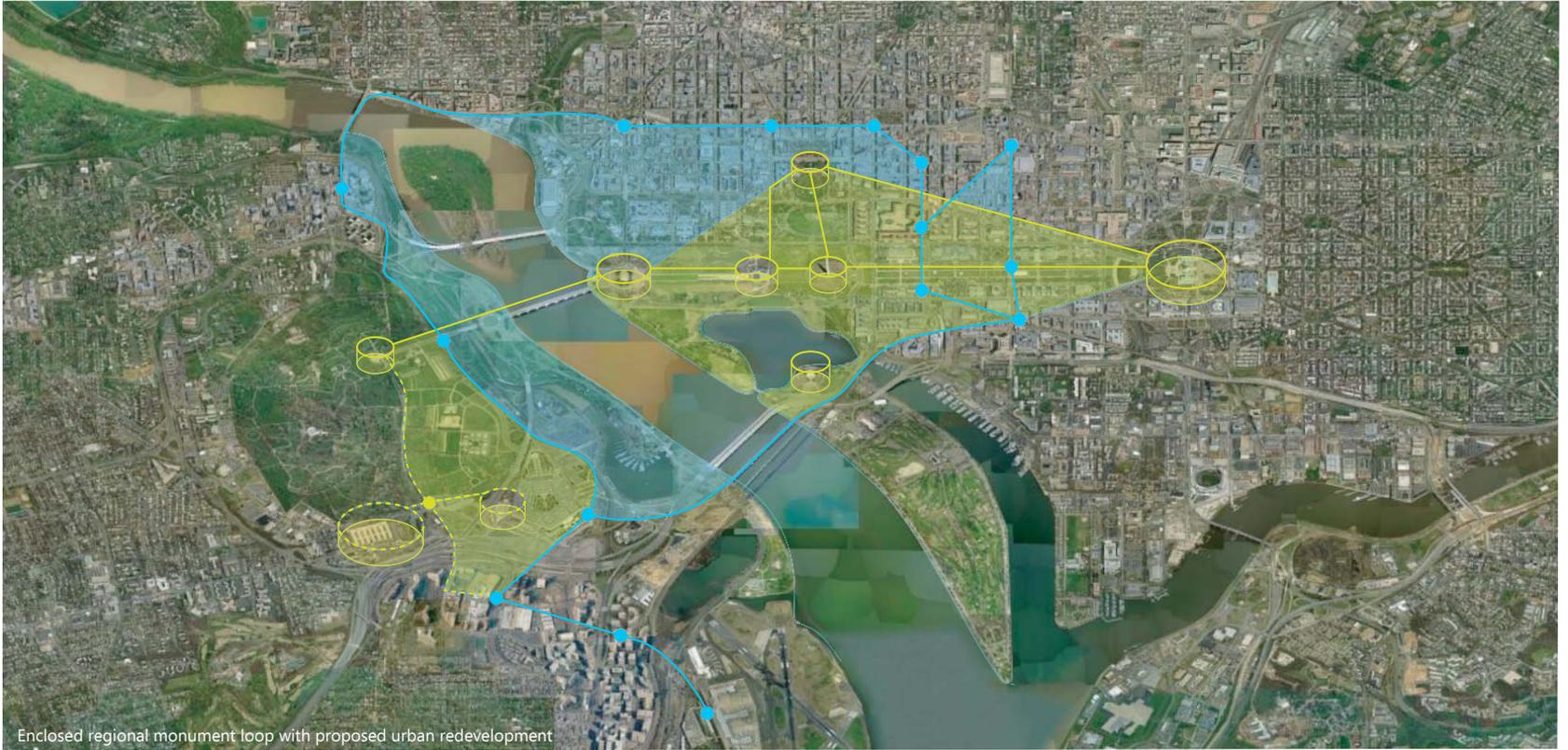


Urban Inertia & Site Potential

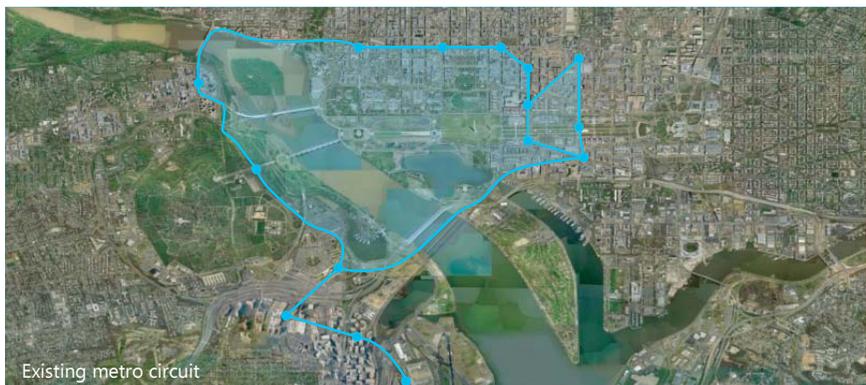
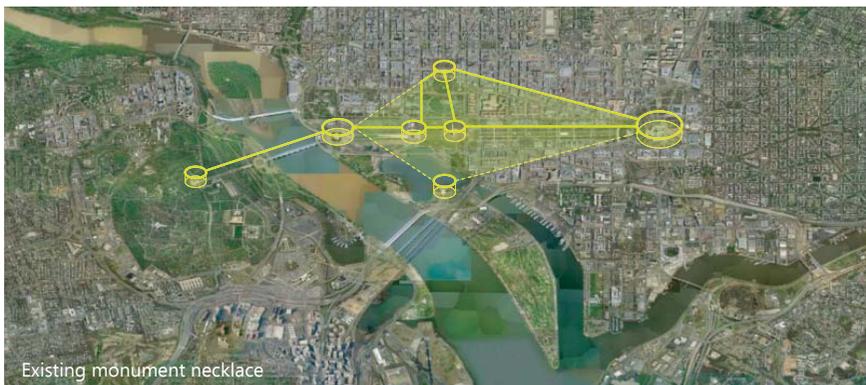
In Arlington, Virginia a struggle for the city is filling in pockets of stagnated development in between flourishing commercial regions. For this area, a driving force of ecological growth is to balance tourist and resident-based economic sectors. These sectors are four elements that work at different scales of impact simultaneously in the modern world. The top tier, and quaternary economic sector includes highly intellectual and networked categories, such as government and education. This sector, for many reasons, has been rapidly changing in the twenty first century with technological advancements and growing cities and nations.

I. The Memorial Necklace

Arlington is home to several government agencies, including the Pentagon, that were largely affected by the 2005 BRAC. The Pentagon's external facility, the Navy Annex, was a part of the BRAC affected government owned properties in Arlington. This Navy Annex is located in South Arlington on the crest of Arlington Ridge, surrounded by several significant and historic places. The site is adjacent to the Pentagon and neighbors Arlington National Cemetery, the Air Force Memorial, and the community of Foxcroft Heights. The Annex was built in 1941 as a temporary-turned-permanent office facility for



12 Above: Multi-Scalar Perspective Diagram, Memorial Necklace



the Pentagon. The complex and its accompanying parking lot sat on a prime 42 acre lot for seventy three years before it was vacated and demolished in June of 2013.

This site, in addition to its historic real estate, has the potential to be included in what is coined the “Memorial Necklace” of Washington, D.C. As depicted, when pedestrian and Metro transit courses are overlaid on a map of the National Mall that pinpoints major tourist attractions and thoroughfares, a loop of sorts is made visible. This loop, or “Monument Necklace” as it should be referred to, exists primarily within the confines of Washington, D.C. with the exception of Arlington National Cemetery west of the Potomac. This dead end instance, is a joint where the pedestrian and Metro paths re-connect and continue on in this loop and metropolitan network.

The problem in this plan is that the urban pathways treat the memorials and museums as an everlasting condition, when in fact, history is an ever-growing subject with each passing day. So in effect of the dead end course to Arlington National Cemetery, the new monuments of our culture exist in an urban disconnect from the Monument Necklace. The monuments referenced include both the Air Force Memorial and Pentagon 9/11 Memorial.

It is hypothesized that with the opportune location of the Navey Annex and its availability as a former BRAC site, there is an urban and architectural solution to a



15 Above: Navy Annex Site, Photograph by Ann Marcum

number of issues that the cities of Arlington, Virginia and Washington, D.C. face.

II. The Multi-Scalar Perspective

The framework of this investigation will look into the relationship between the sense of place and geographic scales through the lens of environmental psychology. Place dependence is defined as “the opportunities a setting provides for the goal and activity needs [of a site]” (Devine-Wright and Clayton, 2010). The histories and present conditions of the Navy Annex, including its context, programs, and infrastructure, will be studied through the lenses of different scalar perspectives. Then, the habits and behaviors of the people within these environments will be identified to determine how people’s mental environmental image illustrates the meaning of the city and the human relationship with urban elements. This will lead the search for moments of opportunity within the immediate environment of study, and produce profound results to incorporate with the urban plan and architectural design.

Several social science theories are interwoven into developing social, cultural, and psychological perspective. While these influencers are vital, the urban exponent is studied in a more passive manner as a setting for change. The constructed relationship between people and these places are different depending on the scale. But it was important to find an intersecting trait between the

two and how one scale can affect man-place perspective from the micro, to meso, to the macro scale. In this case, the Navy Annex and its immediate context are established as the micro environmental scale of the project.

The mid-level, or meso perspective, is identified at the City/County of Arlington scale. Arlington is a county comprised of 25.8 square miles and has a population of 215,000 people. The county is made up of a number of suburbs that are best identified by the Metro hubs that navigate beneath the city: Crystal City, Pentagon City, the Pentagon, Arlington National Cemetery, Rosslyn, Clarendon, Ballston, and Virginia Square. These Metro hubs identify the same historic and political environments aforementioned.

Washington, D.C. has a unique urban landscape that caters to both residents and tourists. Few can compare to the development in and around the city and how the influence on change can deeply affect resident and tourist identities and attachments. This makes the Washington Metropolitan Area (WMA) the most influential urban macro scale site.

Accessibility to an urban center influences ecological development, including economic growth. The WMA is primarily defined by the farthest reaches of the D.C. Metrorail and the enclosed area within Interstate-495 Beltway. As for the Navy Annex site, the I-395 and Highway 1 junction defines the southern parcel

line of the site. The interstate is a High Priority Corridor for its entire length and hosts an average annual daily traffic (AADT) volume of 182,000 vehicles (Virginia Department of Transportation, 2014). The nearest metro stations are located at the Pentagon and Pentagon City stations, with an average daily rider count of 30,000 passengers (Washington Metropolitan Area Transit Authority, 2013).

This adds up to over 200,000 people who pass through the site on a daily basis; and despite this, Foxcroft Heights and the area around the Navy Annex is aged and lacks new development. In comparison there has been an extensive amount of change that has occurred just down the street at Pentagon City, a primary shopping center which is disproportionate to the site's potential. In a diagrammatic study that overlays the Metrorail tracks and stations with the existing monuments and historic buildings or museums of Washington, D.C., there is a short extension that crosses the river via Arlington National Cemetery. However, this remains a dead end and impedes visitors' accessibility. By proposing a culture center, these changes will affect multiple dimensions of the city in ways that attract people and sustainably provides for a healthy and happy population.

Similar to a precedence study that is also executed in multiple scales (the culture center and the city), the culture center is found to be a source for place dependence, which contributes to the development and

successes of place identity and attachment. At the city scale, dependence is an isolated dimension from place attachment and identity. In addition, a higher place dependency from the community on the culture center showed an increase place identity towards the city as a whole.

The programmatic value of a culture center on this site could bridge the gap between the residents' and visitors' identity and attachment. This can continue to strengthen tourist place dependence of the center and museum, all while influencing place identity for the Washington Metropolitan Area (WMA). Qian, Zhu, and Liu also point out that "there has been limited academic endeavor that explores the multi-scalar character of the construction of sense of place" (172). This gives the thesis a further opportunity to characterize architectural elements in similar manifestations that dependencies, identities, and attachments occur in perceived geographic scales. It is important to identify these relationships across the scales that are being studied and networked to the former Navy Annex site.



UNITED STATES AIR FORCE MEMORIAL
DEDICATED
14 OCTOBER 2006
GEORGE W. BUSH
43RD PRESIDENT
OF THE UNITED STATES
OF AMERICA
DEDICATION



CHAPTER FOUR

Design Process

I. Site & Context Study

The Navy Annex is located on Arlington Ridge in the southern portion of the county. Bullard and Johnson discuss the linkage of environmentalism and civil rights and emphasizes its ability to host a great potential to generate change (555). The equality of the foundation and architecture of our society must be made so to improve the lifestyles and welfare of residents living in the United States and around the world. Foxcroft Heights, the neighborhood adjacent to the site, is has a strong connection with the history of Freedman's Village. In 1863, the federal government opened Freedman's Village in Arlington Heights, an area that now exists on the grounds of Arlington National Cemetery. The neighborhood was a settlement for escaped and freed slaves as a temporary refuge before the end of the Civil War. The establishment, however, turned permanent as the population grew to nearly 1,000 former slaves and their families at its peak.

Overcrowding and poor sanitary conditions brought an onset of contagious diseases. By the early 1980s, Freedman's Village was closed down and its residents relocated to other parts of Alexandria and Arlington. This complex played an important urban

development role in the abolition of slavery, and while there are many criticisms on how Freedman's Village was maintained, it was an early home to several elected leaders, and had a large impact on the community during its existence.

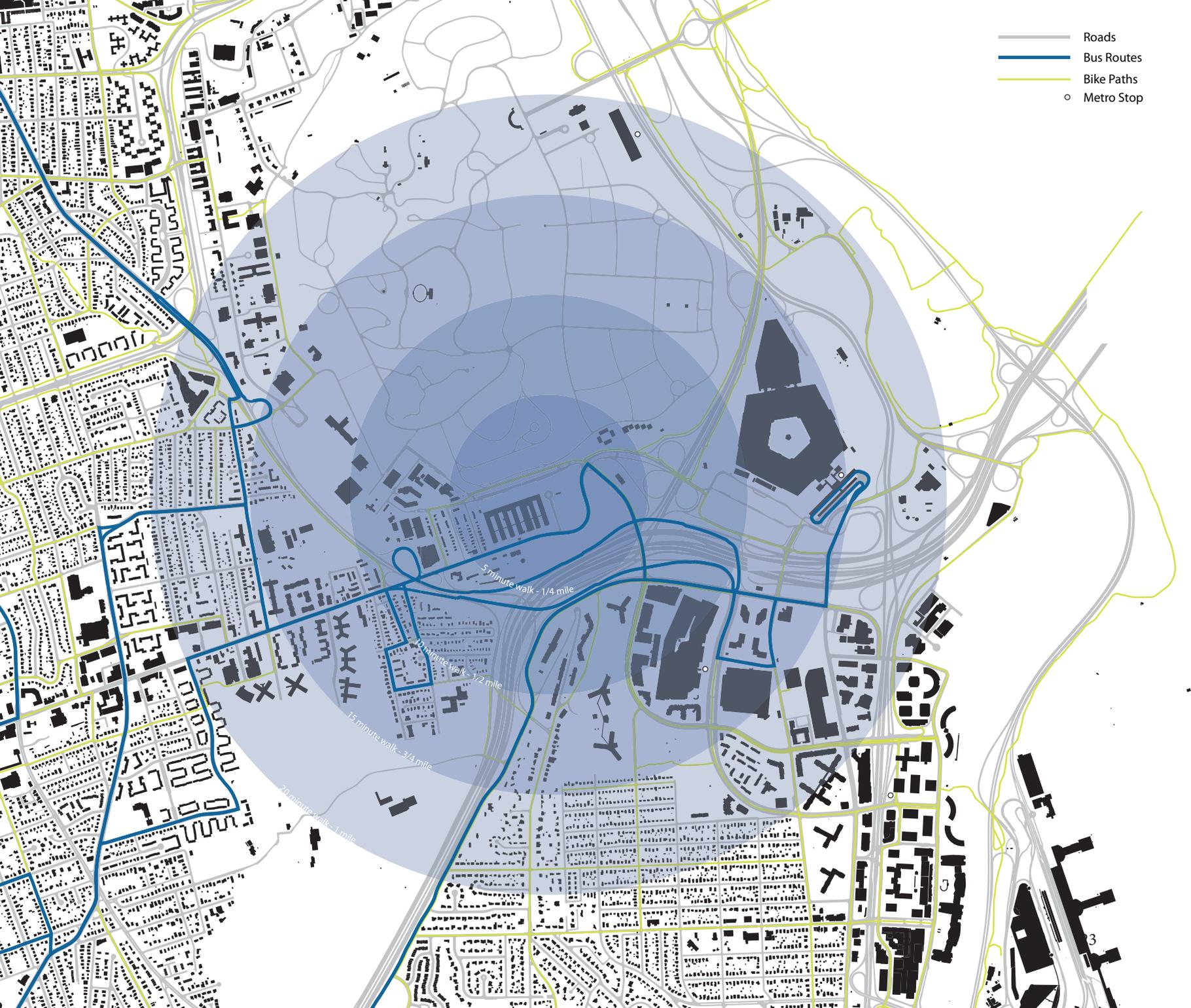
The geographic location of the historic Freedman's Village, and the resting place of 5,000 of its residents, is in Arlington National Cemetery. The 624-acre cemetery was established in 1864, procured from the Lee estate. There are currently 400,000 buried there, with an average of 7,000 new burials a year (Glazer, 2014). While expansions have occurred in the past, and future development has additional space opening up to the north, space is still limited. The potential that the Navy Annex site provides is land that is contiguous to the current boundary of the cemetery. It would be beneficial to the community and the nation if a portion of land were to be donated to the cemetery and expanding the landscape. This donation is a turning point in the project, incorporating the design of new infrastructure, and with it, new opportunities to the former Navy Annex.

II. Urban Planning

The current neighborhood of Foxcroft Heights is comprised of approximately fifty single family and duplex residences. According to the 2010 census, seventy percent of the residents are renters, not primary owners of the homes they live in (Arlington County, 2013). One concern with these demographics is the temporality of the population; and with so few homes, the turnaround of residents is not high enough to initiate a successful redevelopment project on its own. Examining the existing conditions, there are a handful of commercial properties, including a Sheraton Hotel and Conference Center along Columbia Pike that tower over Foxcroft Heights. Overall, the pedestrian infrastructure is aged and dilapidated, and the fabric of the area is small and loosely knit in comparison to its updated counterpart, Pentagon City.

Adjacent to the neighborhood is a secondary entrance to Fort Myers, and excess parking remains along Southgate Road and the Southern fence of Arlington National Cemetery. The Metro bus passes by the neighborhood frequently, and there are informal bike paths that pass through the area. The nearest metro stops are an approximate 12-15 minute walk along high-traffic junctions and roads. These conditions are not at all ideal. So with the newly available Navy Annex site comes a new opportunity.

- Roads
- Bus Routes
- Bike Paths
- Metro Stop



The beginning of the urban design process, after critiquing the existing site conditions, is to draft and plan more efficient and fluid means of transportation through or around the neighborhood of Foxcroft Heights, keeping in mind the different programmatic elements that will be incorporated into the new plan.

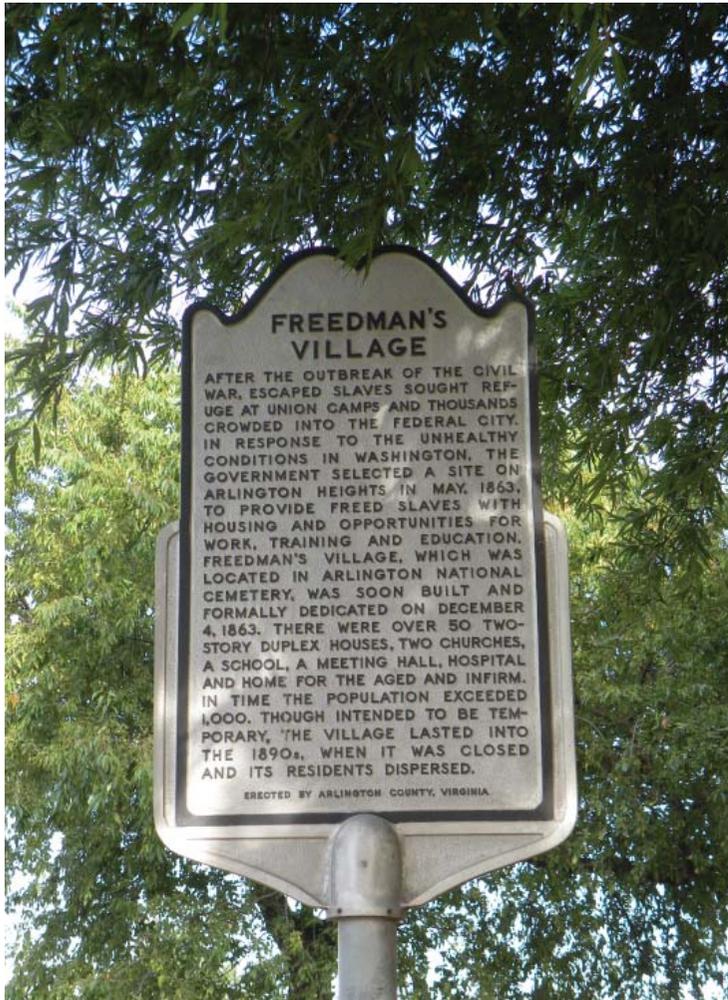
With commercial or mixed-use building, it is crucial to provide an accessibility to pedestrians or commuters who also double as paying customers and clients. The first plan of action was to extend the grid from the edge of Foxcroft Heights through the Navy Annex site. Beginning from the North of Southgate Road, the remnants of the Navy Annex's parking lot is scarcely used, and exists at a significantly lower grade than the site itself. To the North and South of this road are two secondary entrances. One leads to Fort Myer's residential halls and the other to a restricted access gate into Arlington National Cemetery. I propose that the area between the two points of entry will be partitioned off at the grade change and donated to the National Cemetery.

In my design, Southgate Roads moves farther south but at a higher elevation, incorporating a span of road for visitors to stop their cars and overlook the cemetery, similar to the overlooks along George Washington Parkway North bound.

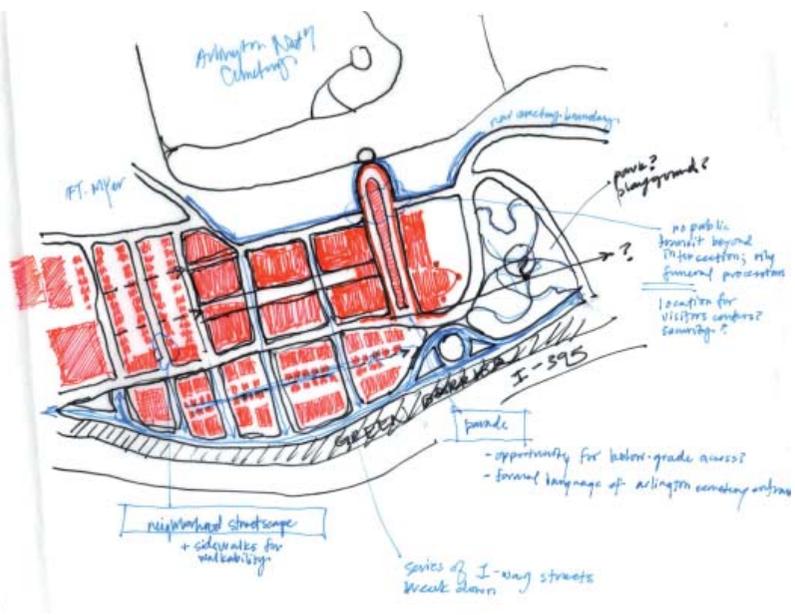
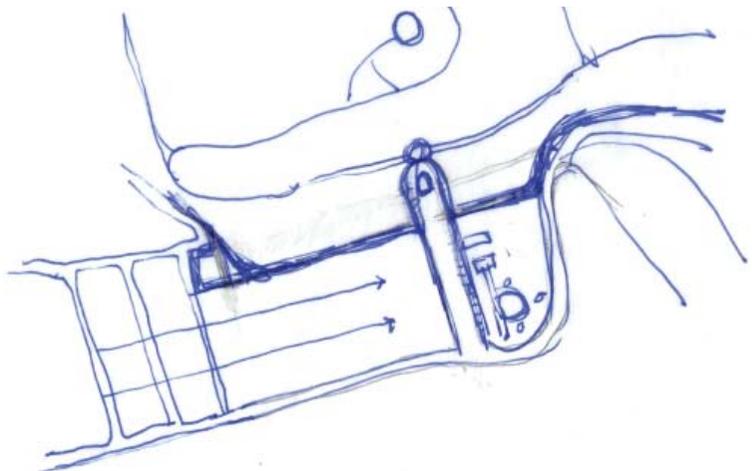
In part of the National Cemetery expansion, there is an opportunity to re-design the secondary gate to allow a continuous flow of pedestrian traffic from Washington, D.C.'s National Mall. As illustrated in the Memorial Necklace diagram, the patterns of movement tracked through the city often dead-end at the National Cemetery. From there a bus, Metro, or personal vehicular modes of transportation complete the pedestrian journey home, to their hotels, or to the other, less accessible destinations.

By opening a public gate on a proposed traffic circle at the intersection of Southgate Road and Joyce Street the design will utilize existing cemetery roadways, creating a link between the current memorial necklace and the "New Memorials" of Arlington: The Air Force Memorial and the Pentagon 9/11 Memorial.

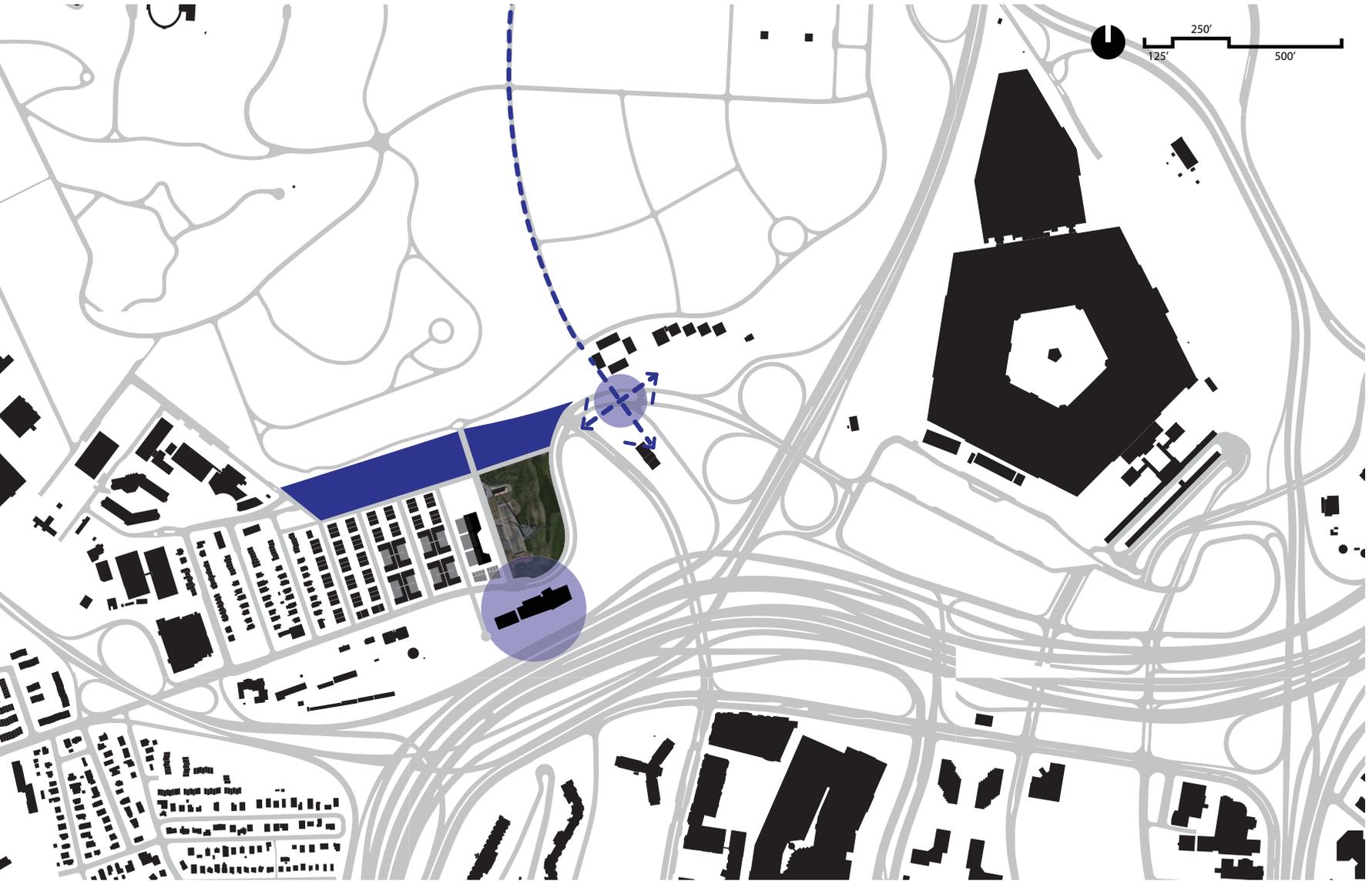
The proposed gate is positioned beside the cemetery's facility maintenance buildings, limiting interruption of any existing graves in the area. Public car access will be limited or restricted through this gate, but the expansion of the cemetery's shuttle services for tours and transit to and from the visitor's center.



Top (Left): Freedman's Village Historical Marker, Photograph by Ann Marcum
Top (Right): Oak Street, Foxcroft Heights, Photograph by Ann Marcum 24



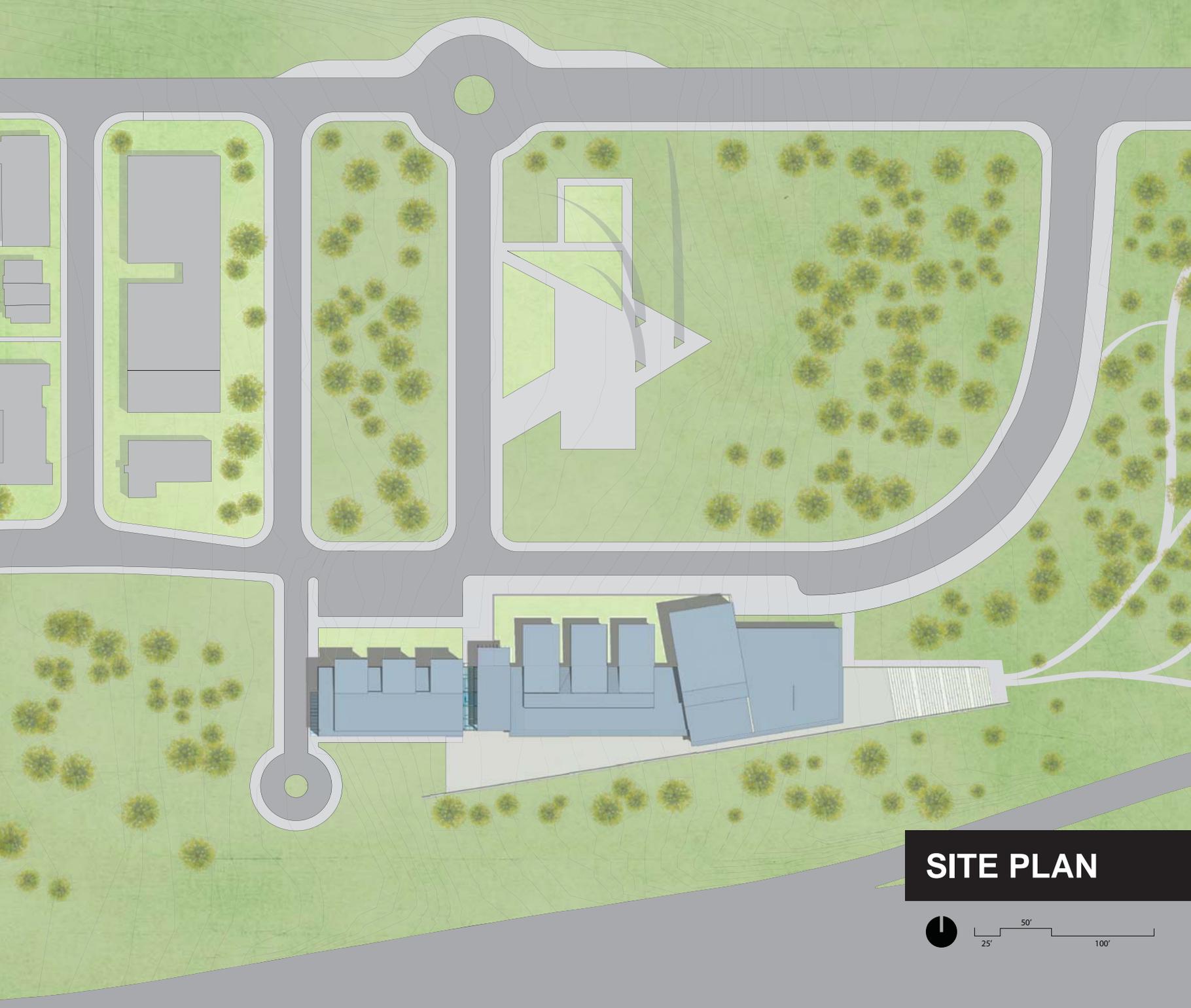
URBAN DESIGN DIAGRAM



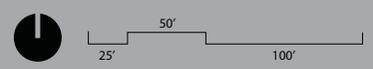
III. Architectural Program

The redevelopment of the Navy Annex site introduces a competitive increase of commercial and mixed-use programs to the South Arlington neighborhood. However, in order to successfully reinforce the urban design of incorporating the “new memorials” into Washington, D.C.’s memorial necklace, a strong community-based programmatic element is needed in the urban design.

Foxcroft Height’s historic ties with Arlington National Cemetery offers a foundation to incorporate a museum element while working in tandem with expanding the Arlington Historical Society’s exhibits. In addition to this there is an opportunity to provide the Arlington and the public sector with facilities to host and manage on site. These facilities include: Offices, conference rooms, artifact and archive storage, galleries, cafe, auditorium, and a multi-function ballroom. The site also includes parking, outdoor patios, and park.



SITE PLAN

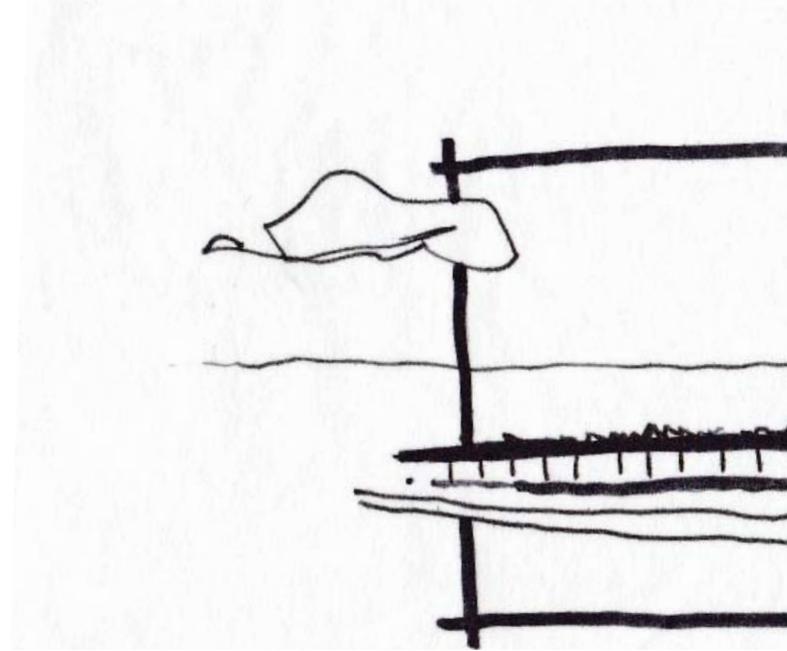


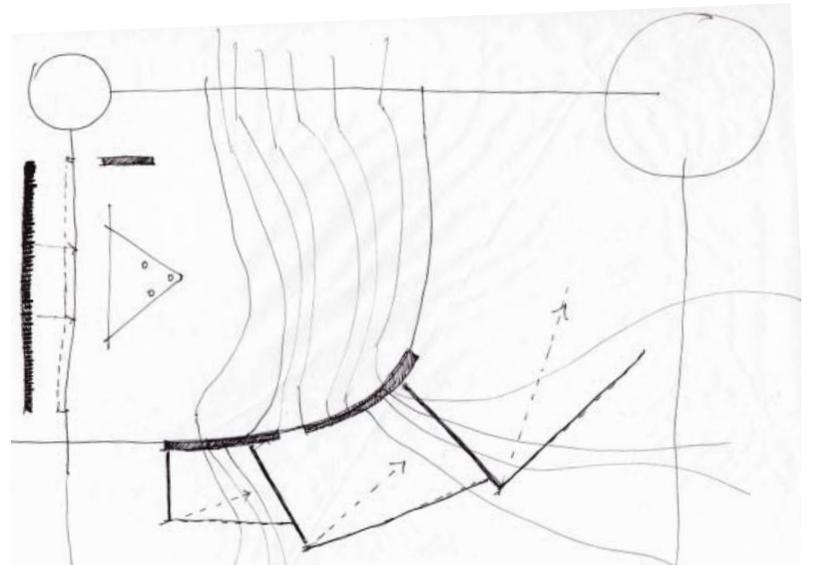
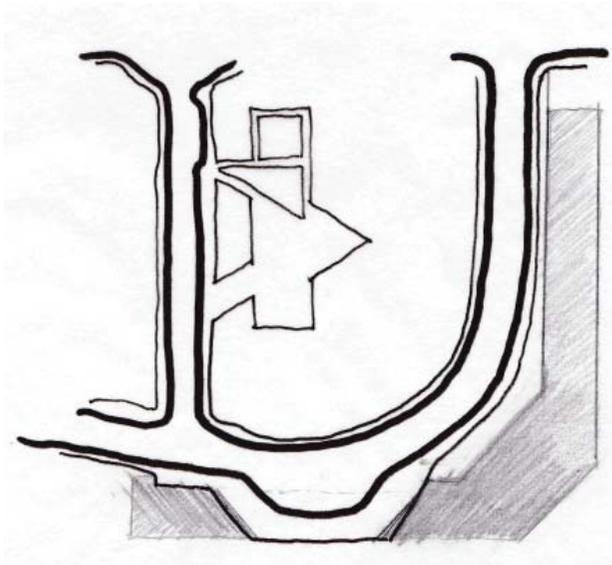
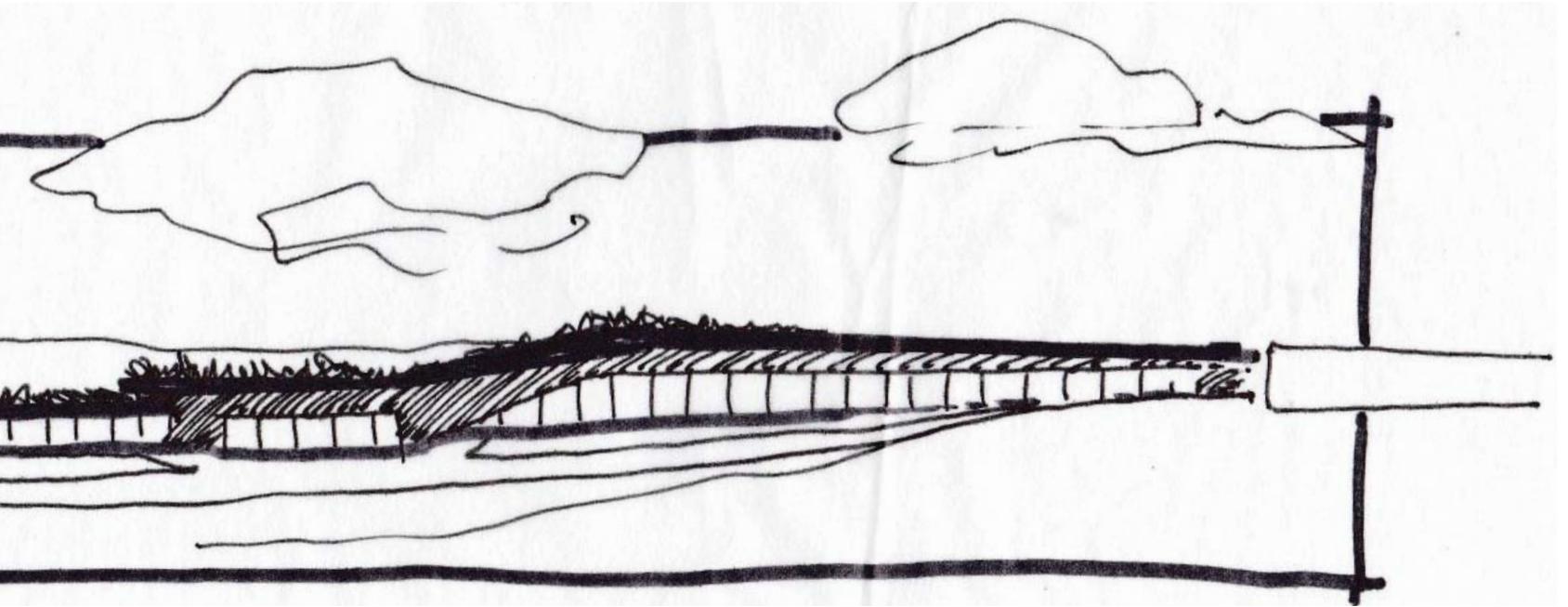
CHAPTER FIVE

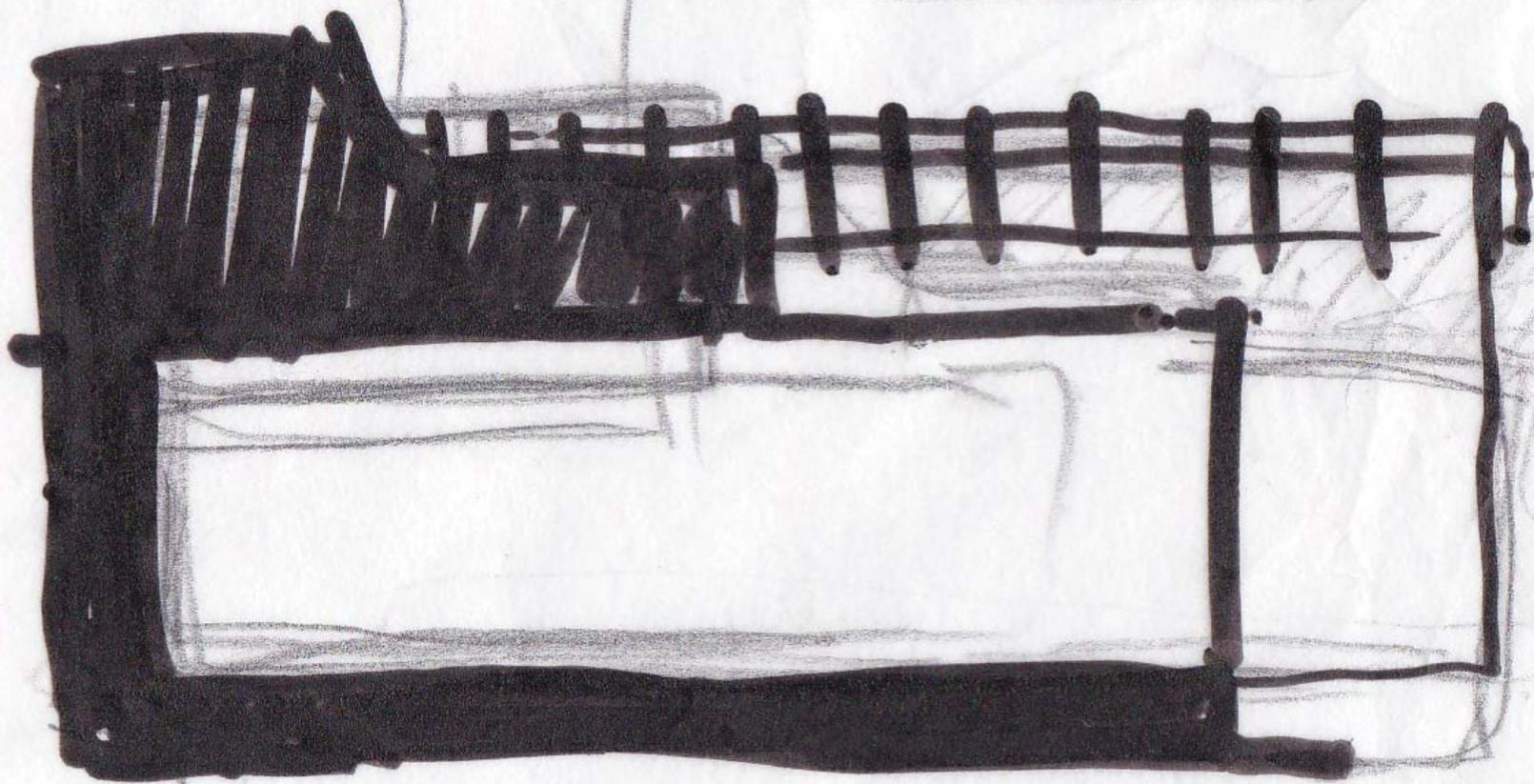
Architectural Design *Arlington Civic Center*

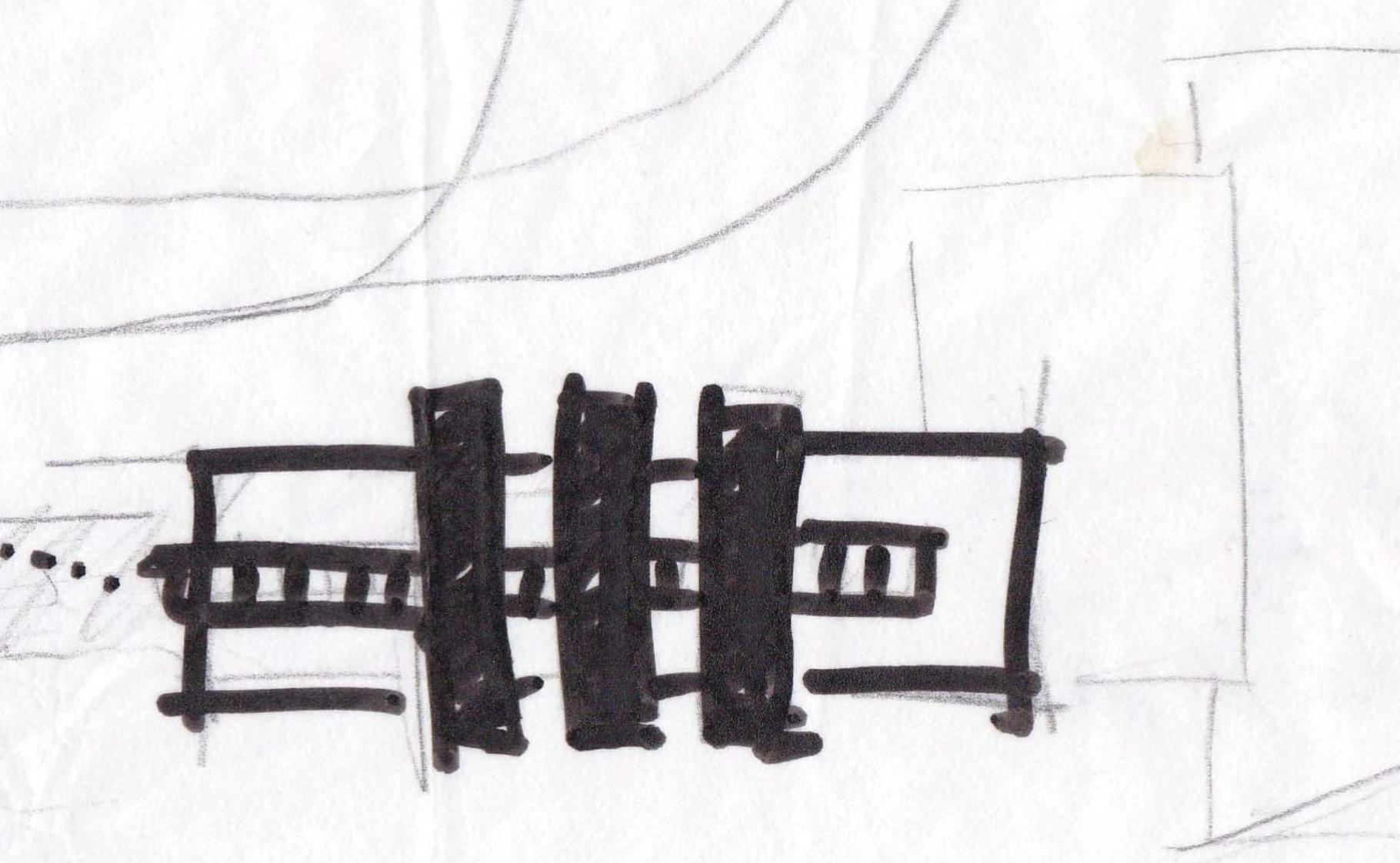
The Arlington Civic Center is devised to reinforce and host the new monument link with South Arlington and the memorial necklace. The strongest relationship exists between the proposed civic institution and the Air Force Memorial. With the site nestled between Columbia Pike and Interstate 395, the south wall will be offset from the major artery and treated as a sound barrier from the interstate traffic. The sloped site lends the building an opportunity to be a multi-story design that opens to the ground level at multiple floors with expansive eastern views.

Columbia Pike created a corner condition on the site that needed to be resolved. As illustrated in the early conceptual civic center sketches, the answer lay with whether there would be one large building or multiple that are divided programmatically. A context driven constraint is to minimize the height of the building so not to disrupt any views of the Air Force Memorial. By keeping the program as a single facility, the design risked blocking expansive views of Arlington Ridge from the East and South. By dividing the programs into two buildings, the design is able to accommodate all constraints for both the city and the community.



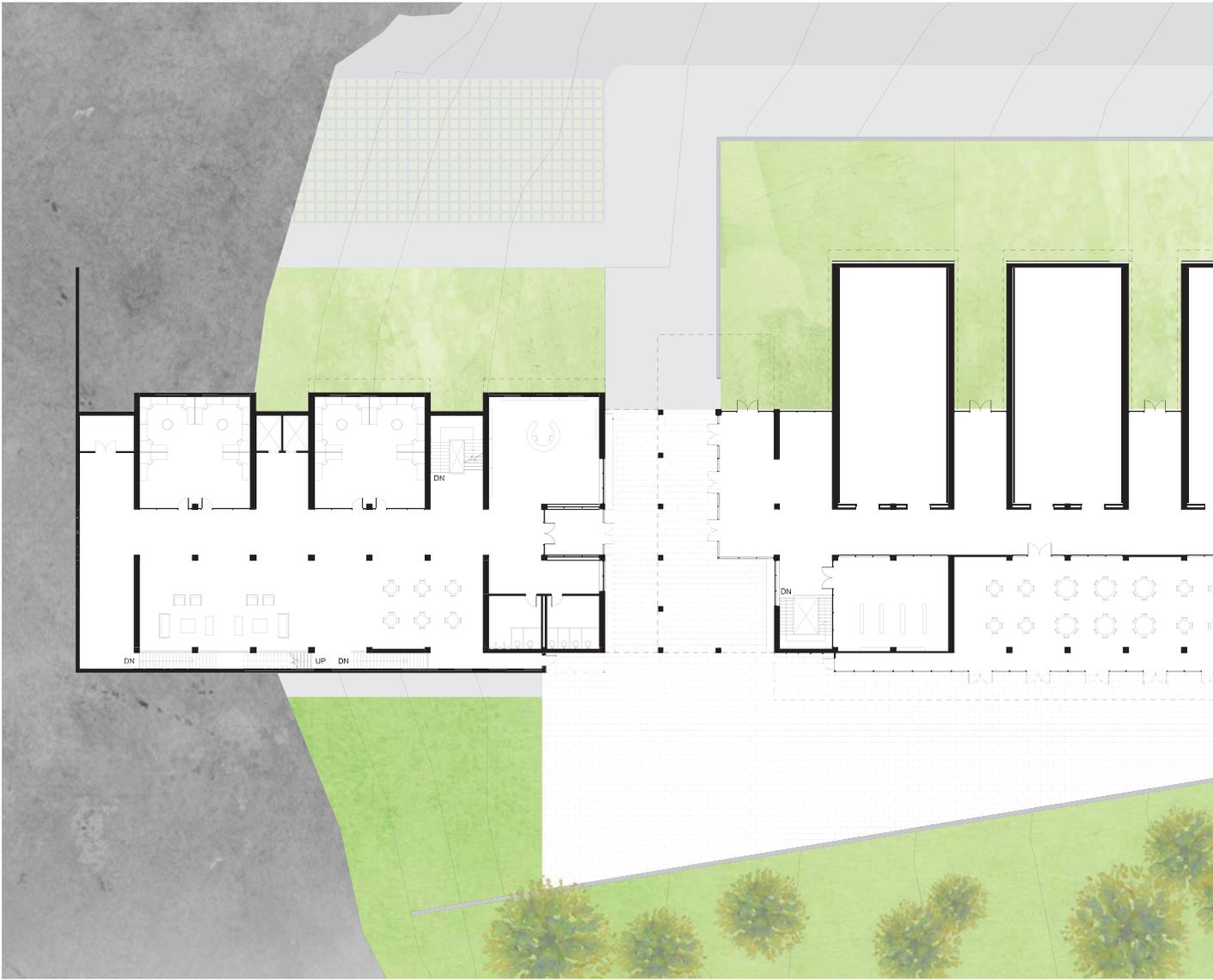


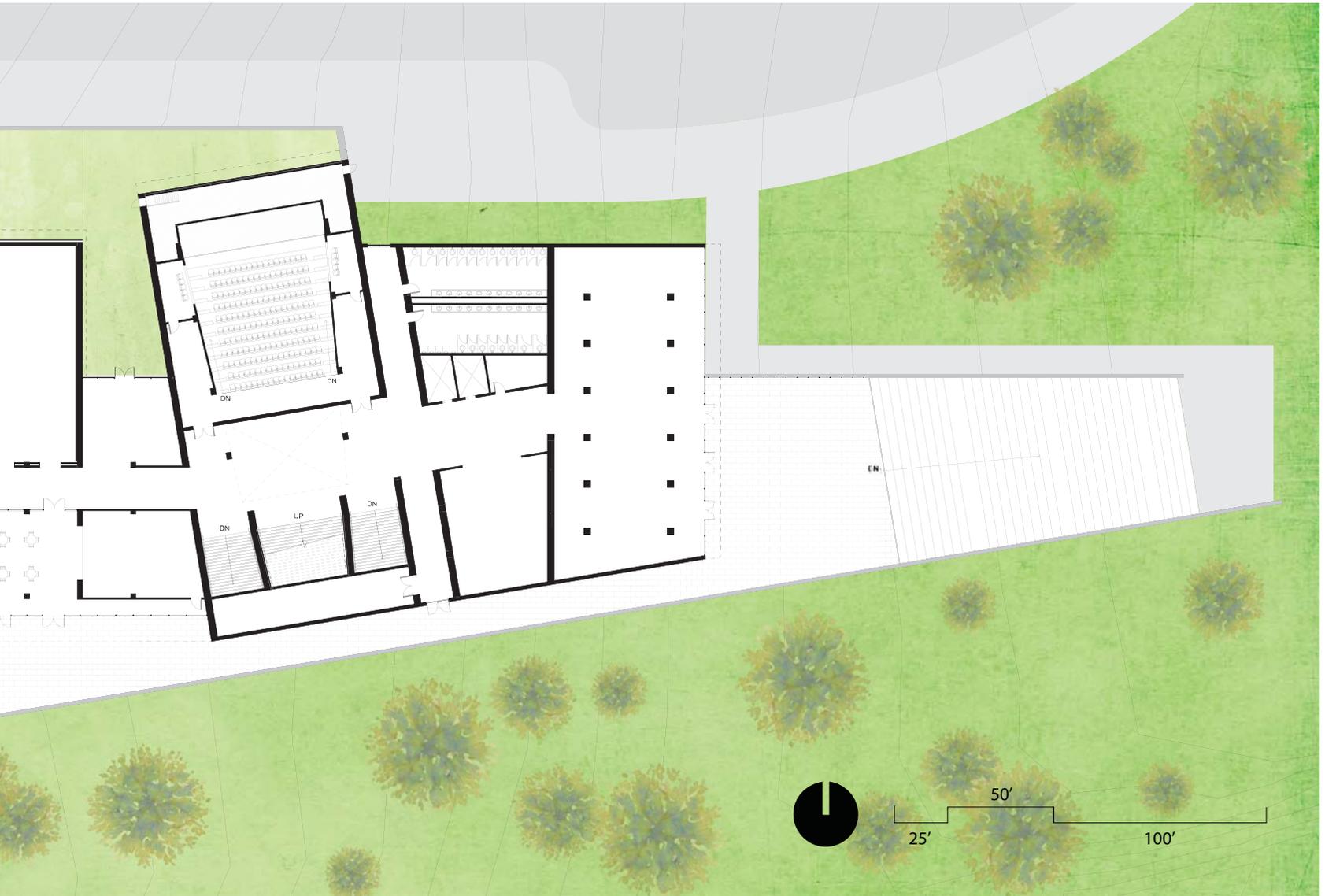




The structure of the buildings are a combined series of cast-in-place concrete walls with and steel frame systems. The concrete walls create a repetition of spaces following a 1-2-1-2-1-2-3 poetic scheme. Spaces 1 are the short-spans that create mechanical and circulatory spaces. While spaces 2 are inhabited programmatic rooms such as offices and museum exhibits. Spaces 3 interpret the largest of the spaces, including the canopied entrance, the auditorium, and ball rooms. By using this scheme, it creates a fluid method to the overall building design and helps maintain a regularity to the structural spans and material usage.

FIRST FLOOR PLAN





MAIN ENTRANCE PERSPECTIVE

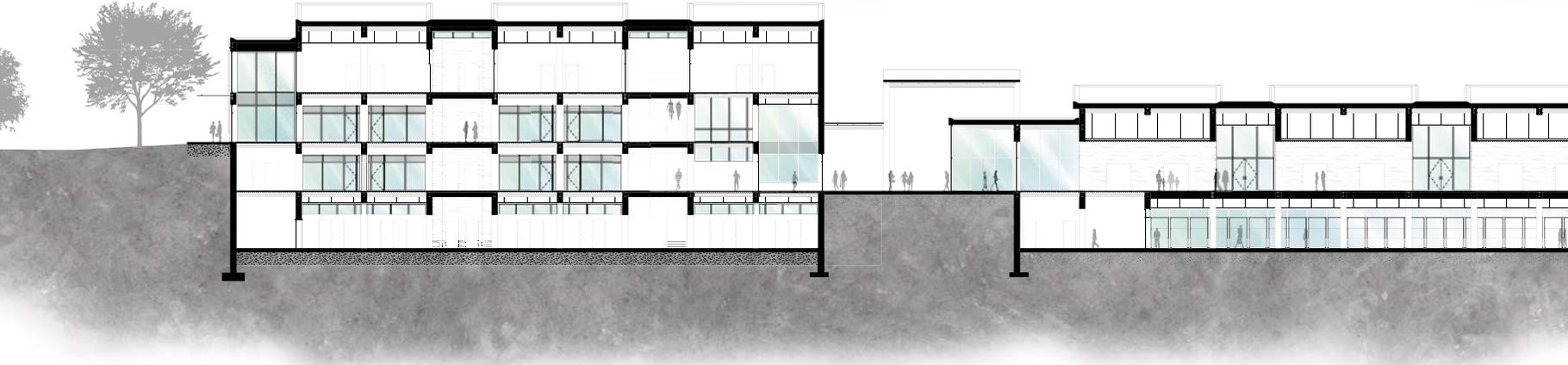




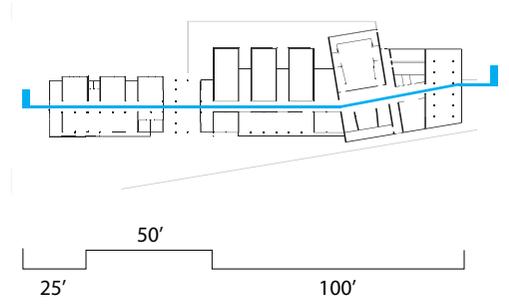
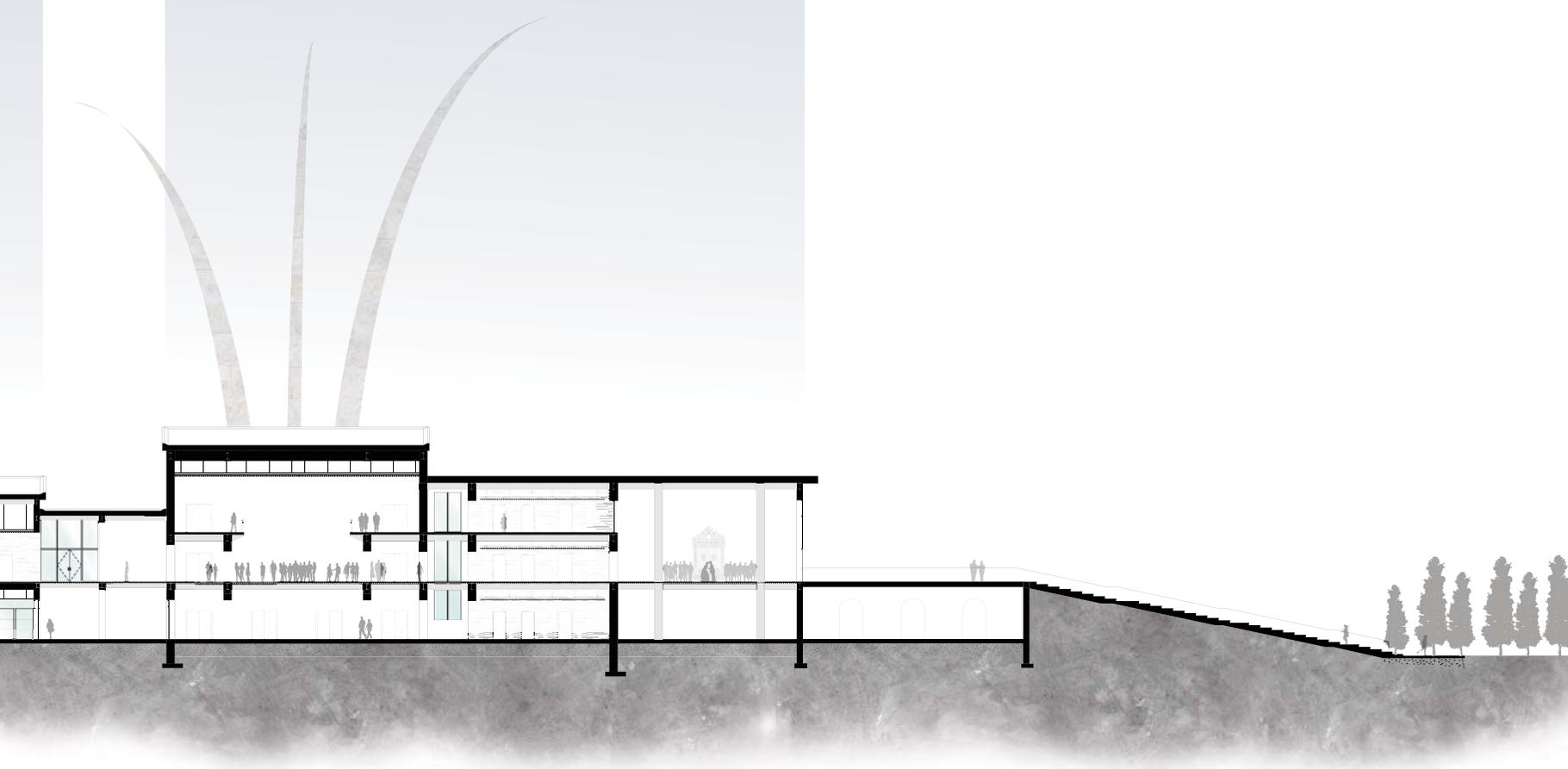
LONGITUDINAL SECTION

OFFICE

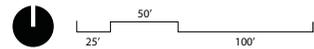
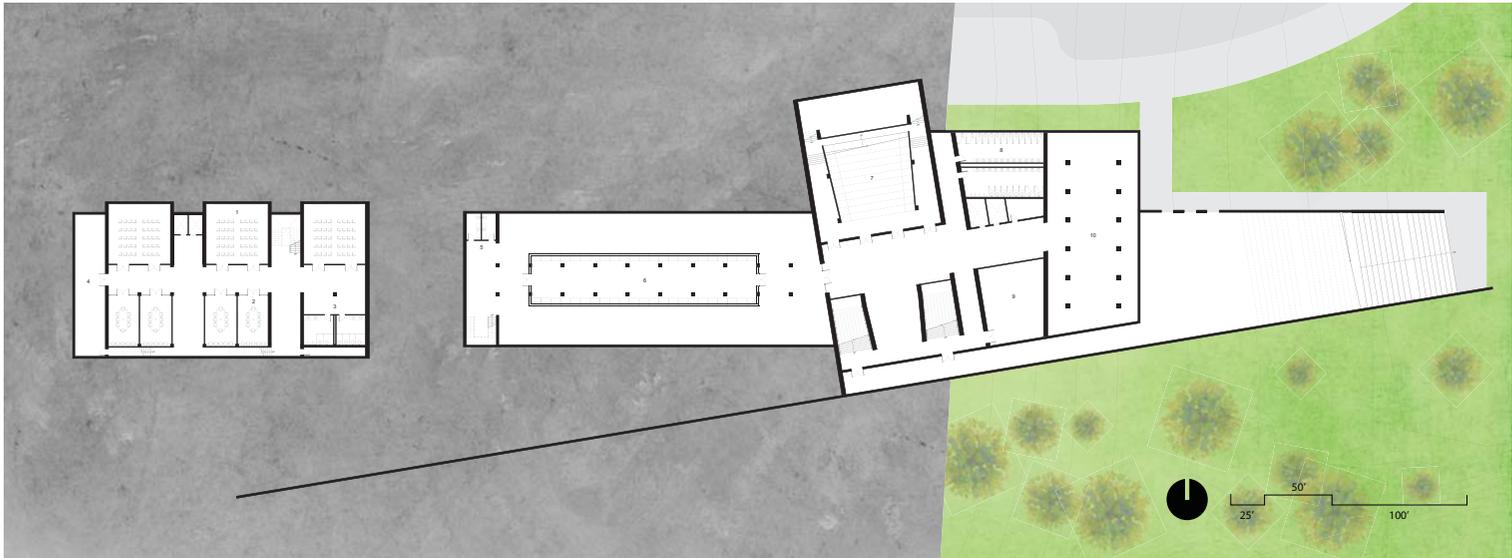
MUSEUM



M THEATER



ARLINGTON CIVIC CENTER

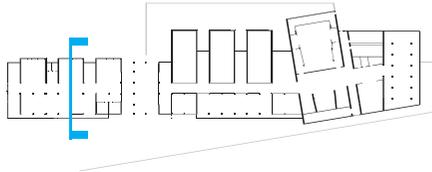


By elongating the straight portion of the road west of the Columbia Pike corner, the alignment of the Air Force Memorial thoroughfare could then be adjacent to the Civic Center's main courtyard. This canopied courtyard is the entry way that sets the rhythmic series of design elements throughout the complex. The western, three story building houses offices, laboratories, and other appropriated meeting spaces for the City of Arlington and the Arlington Historical Society to maintain an active on-site presence. Giving these institutions their own spaces benefits the secure nature of the artifacts and also encourages an interactive approach with the visiting community and tourists.



The main level of the building accommodates visitors with public rest rooms, seating areas, and an information desk to guide visitors to their desired destinations. Across the courtyard, guests are welcome to enter the Civic Center’s east building. There are three main museum exhibits, each representative of a certain time in Arlington’s history: Past, present, and future. Between these exhibits are smaller intermediate galleries for additional art and display spaces.

The interstitial galleries have exits to the outside raised garden, creating an ideal area to continue the art gallery program through as a sculpture garden. These gardens on the north side of the building are raised above the sidewalk elevation that, at a more gradual angle, slopes down towards the east in reference to its surrounding context. The retaining walls are gabion walls filled with stone and upcycled concrete that is retrieved from other local construction sites. This rough hewn material helps ground the light and floating nature of the building.



OPEN & PRIVATE OFFICE SPACES FOR FLEXIBLE WORK ENVIRONMENTS WITH NATURAL NORTH LIGHTING

MEETING & BREAK AREAS FOR EMPLOYEES AND VISITORS

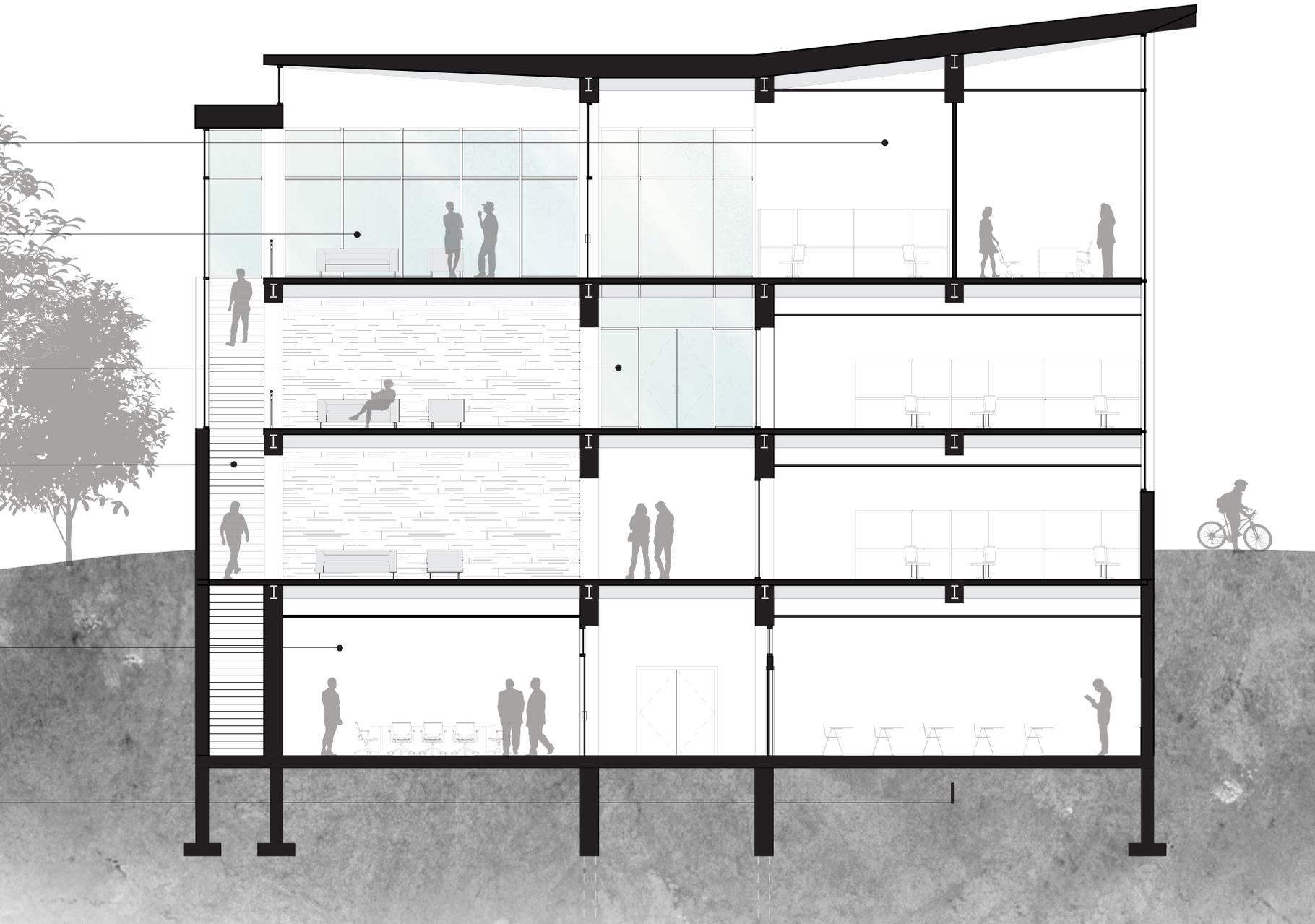
SECOND LEVEL WEST ENTRANCE

STAIR CORRIDOOR

INTERACTIVE CONFERENCE ROOMS WITH COMPUTER AND VTC CAPABILITIES FOR MEETINGS & CLASSES

TRADITIONAL CLASSROOM SPACES TO HOST PRIVATE OR COMMUNITY WORKSHOPS, CLASSES, AND EVENTS

OFFICE SECTION

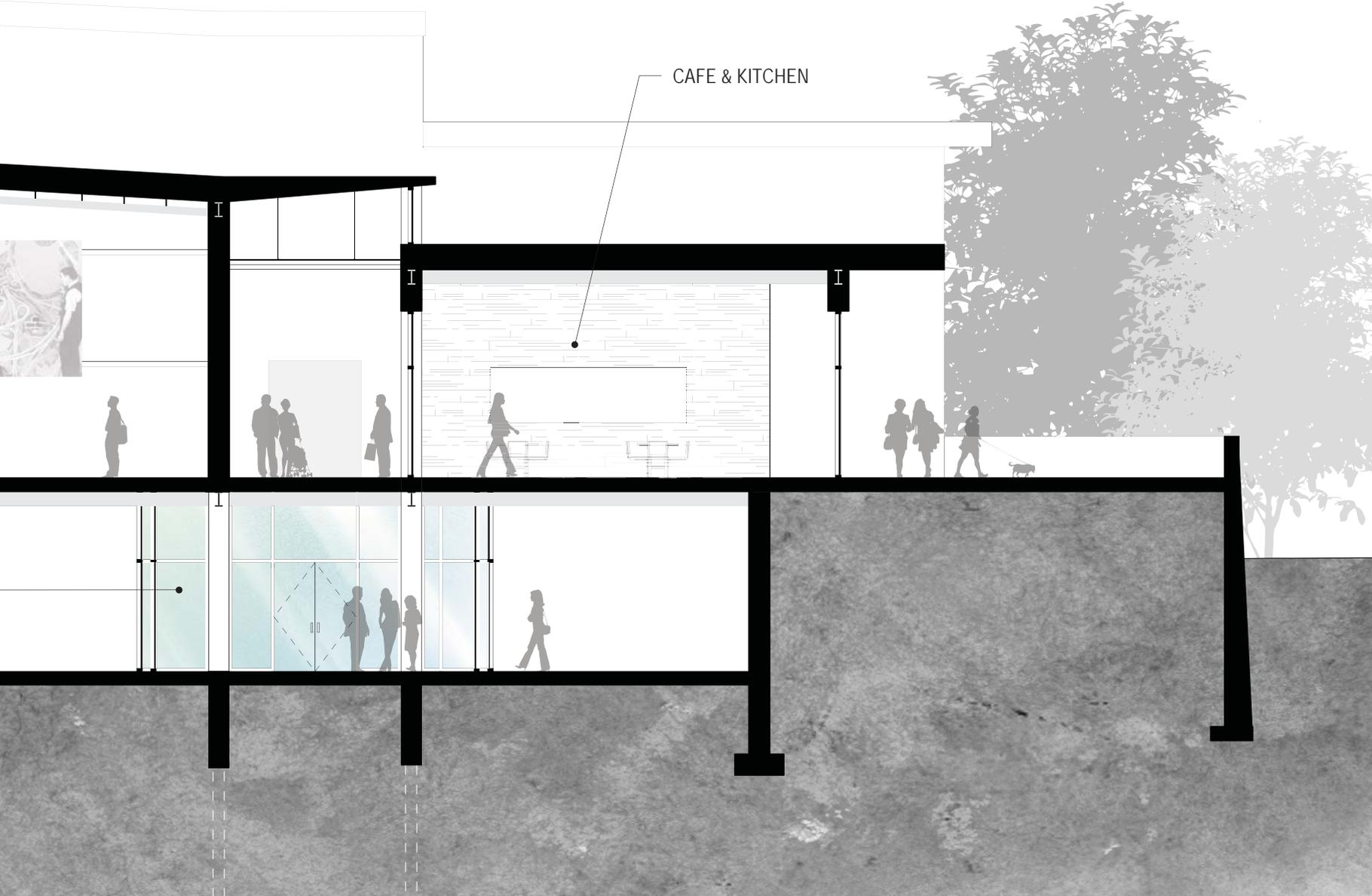
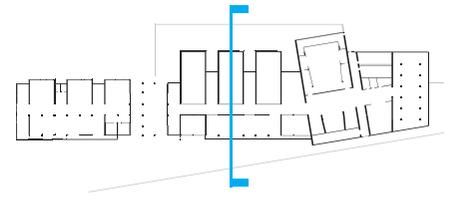


MUSEUM / CAFE SECTION

BACK LIT PROJECTION PANELS
PRE-DESIGNED WALL SWEEPS TO MOUNT ART,
INSTALLATIONS, & ARTIFICIAL WALLS IN THE
ADAPTABLE SPACE



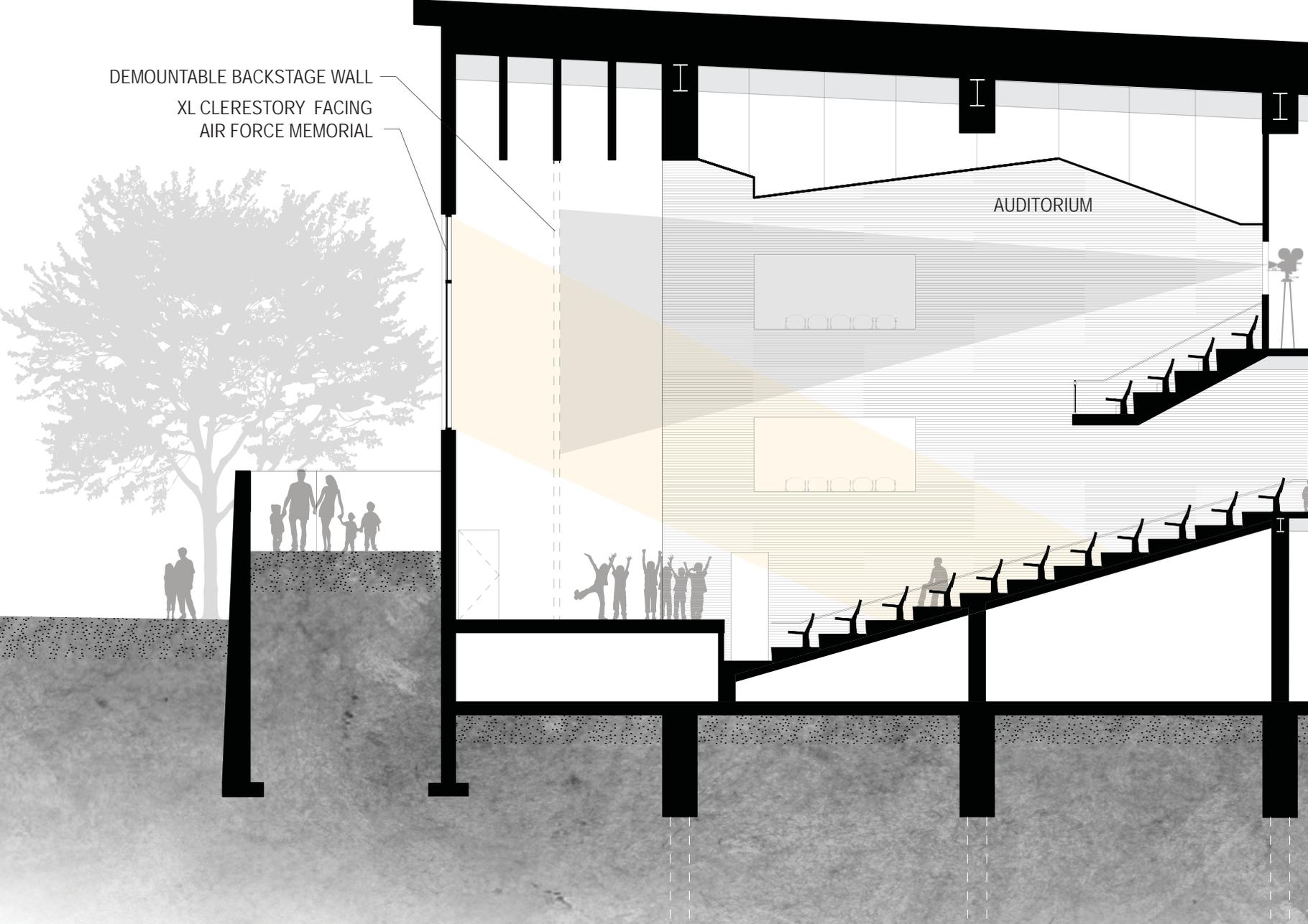
CLIMATE AND LIGHT CONTROLLED
ARTIFACT STORAGE ROOM WITH GLASS
STOREFRONT WALLS FOR VIEWING

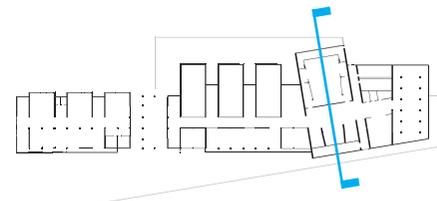


AUDITORIUM SECTION

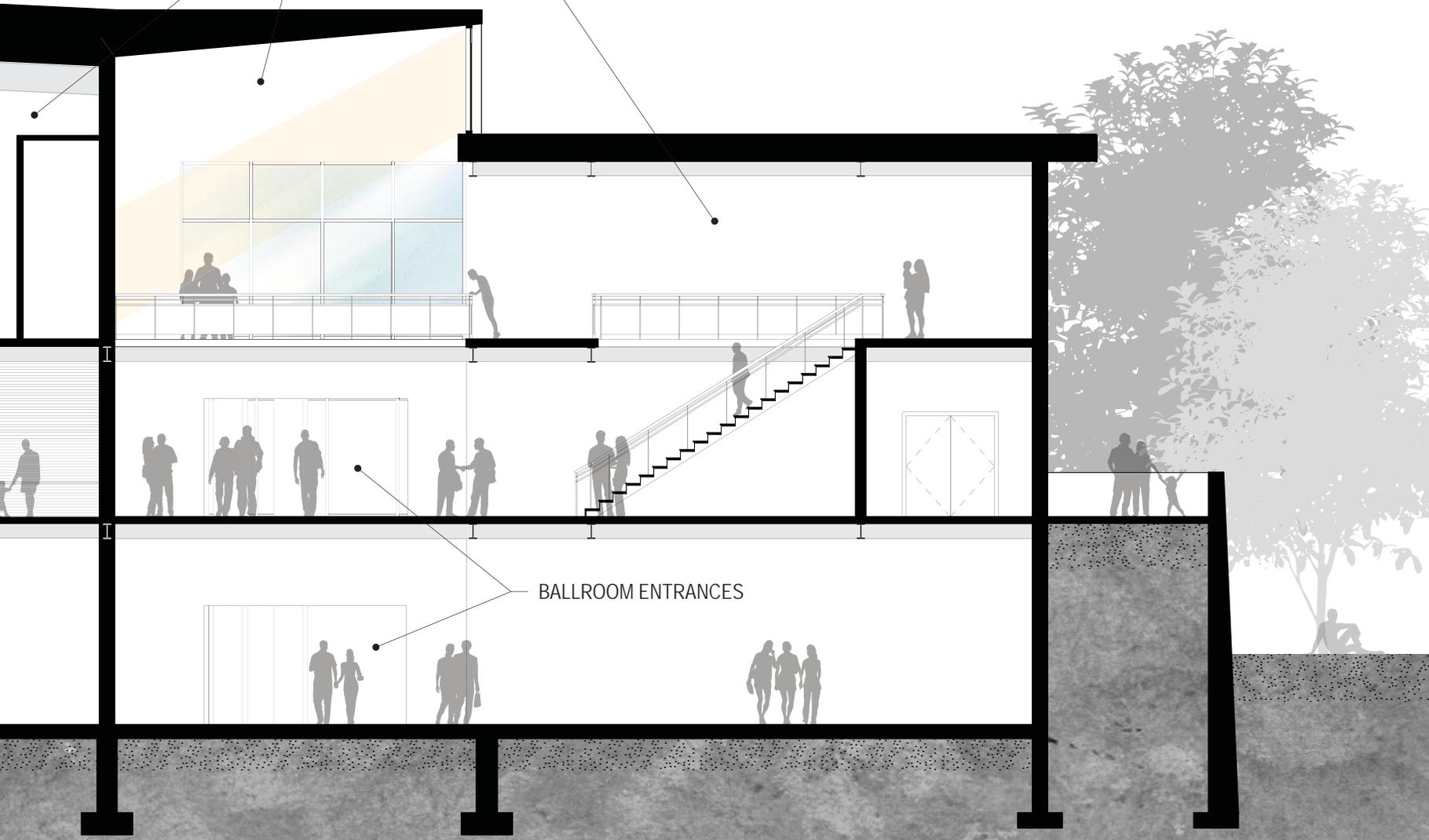
DEMOUNTABLE BACKSTAGE WALL
XL CLERESTORY FACING
AIR FORCE MEMORIAL

AUDITORIUM





PROJECTION BOOTH
CENTRAL ATRIUM
MAIN STAIR THEATER



BALLROOM ENTRANCES

AUDITORIUM PERSPECTIVE



Across the hall from the galleries are the Center's gift shop and cafe where guests can take time to sit and enjoy themselves. The cafe's exterior wall is a storefront that opens to the patio that overlooks the park and continues down a path across the length of the building. Both the front and back patios are designed with these storefronts to create a flexible interior-exterior transition for private or public events that might be hosted by the Civic Center.

Beyond the exhibition spaces is where the auditorium and ballroom are located. It is at this point where, to accommodate the large programmatic elements, the rhythmic scheme ends with 3 and 3. The structural scheme also adapts to these changes with thicker concrete load bearing walls and trusses to support longer, uninterrupted spans.

Beginning at the west wall of the auditorium, the angle of the building is also slightly rotated at twenty seven degrees. The purpose of this is to align the exterior auditorium wall and seats perpendicularly to the Air Force Memorial just north of it, with the intention of creating a picturesque backdrop. To do this, the idea of a "black box" theater was not an option. Instead, thinking outside of the box, and incorporating the multi-faceted abilities of the rest of the building, the auditorium mainstage is designed with a layered backstage for different uses.

The exterior wall of the auditorium is built with a large, fourteen foot, overhead clerestory that spans the length of the stage. There is an interstitial back-of-house space that is separated from the mainstage via a retractable backdrop. With the backdrop down, the auditorium can be used more traditionally as a film or performance theater where light and setting needs to have a more controlled environment. But in the case of an alternative atmosphere for speakers, ceremonies, or other events that might be hosted by the city or military, the option of having that view to the Air Force Memorial infuses a very iconic symbol with the ambience of the event.

This design intention reflects the theme to many other political and social events that occur in and around the area, such as the presidential inauguration in front of the Capital Building, or Memorial Day's Rolling Thunder gathering at the steps of the Lincoln Memorial. By nurturing this architectural relationship with social and political celebration, there can be prospects of a new memorial beginning and maintaining a new tradition.

NORTH EXTERIOR PERSPECTIVE









SOUTH EXTERIOR PERSPECTIVE

EAST PATIO PERSPECTIVE



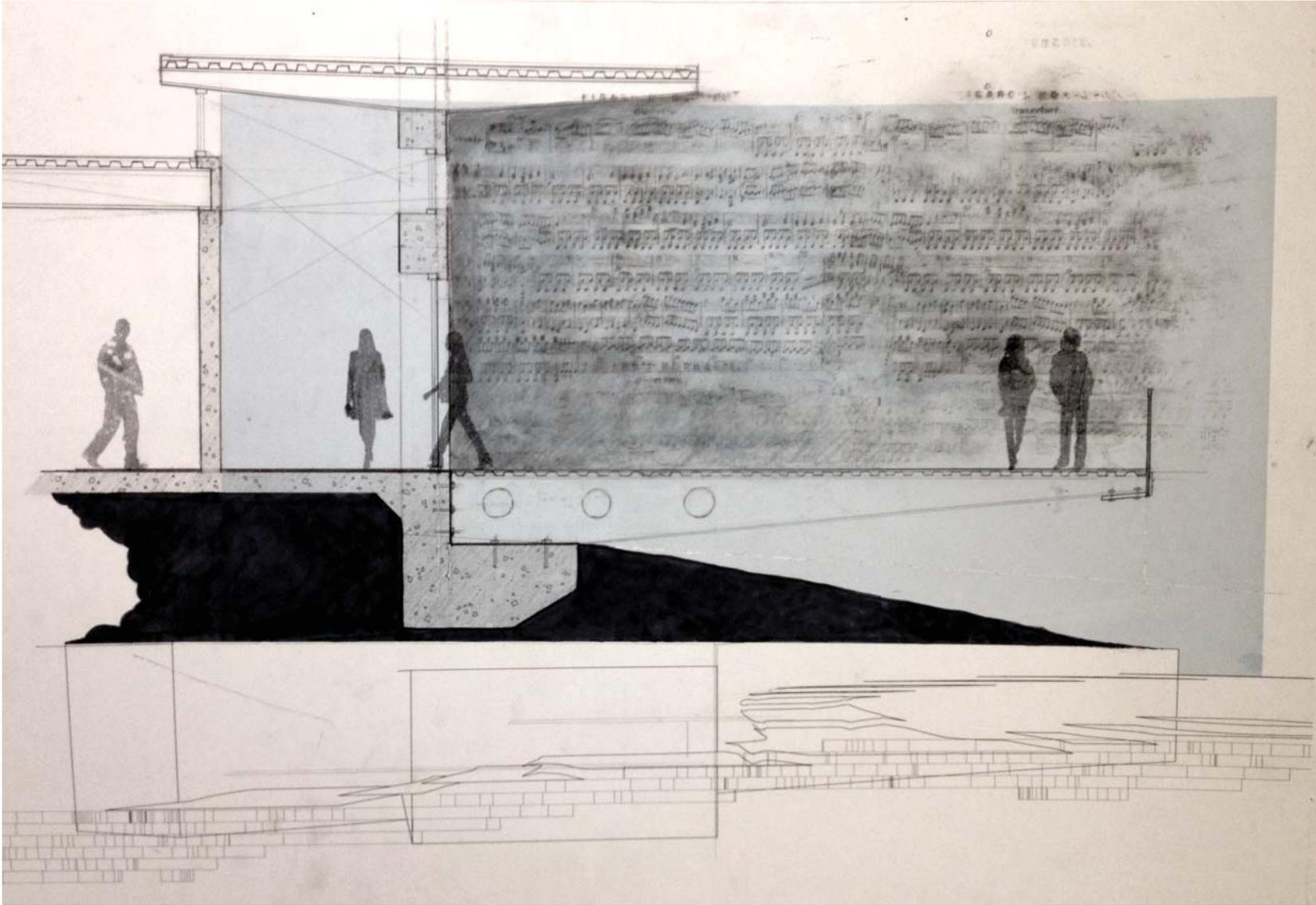


CONCLUSION

In the field of urban planning, environmental psychology studies human relationships to places and settings. For this thesis I take an intrinsic look at how to redevelop the former Navy Annex site in Arlington, Virginia through a multi-scalar lens. By doing so, the research examines how to best design elements of the urban and architectural proposal cohesively with social-ecological values.

The multi-scalar perspective establishes targeted priorities in the micro, meso, and macro scales. By generating a civic program that promotes these links between the history, the land, and the public, the chances for future success rises. Ecologically, this means finding a way to work cohesively with existing monuments and memorials, while attracting a higher concentration of people to the new memorials in Arlington. Architecturally, a flexible and multi-use program that caters to both local residents and tourists elevates public attachment to the neighborhood, the city, as well as all of the Washington Metropolitan Area.

The County of Arlington Civic Center illustrates a broad-spectrum awareness of its context and social paradigms, while providing practical solutions to a complex web of urban challenges. By bringing the human element back into the plan it increases daily dependencies for the programs provided. As usage increases, credibility is built. This thesis on multi-scalar perspective and design has thus emerged as a model for future work in the field of civic architecture with a progressive impact on the people from the past, in the present, and of the future.



Above: Balcony Section Design 56

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Above: Final Defense Boards, Photo by Ann Marcum 60