

## ABSTRACT

Title of Thesis: URBAN CATALYST: CONTINUING THE  
LEGACY OF MASSACHUSETTS AVENUE

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Master of Architecture  
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This thesis proposes a reconnection of Massachusetts Avenue to the Anacostia River waterfront in Washington, DC. An intervention at the site of Reservation 13 will reconcile a difficult urban edge and reunite the neighborhood of Lincoln Park with the river. It also addresses the discontinuity of the avenue to the southeast and proposes the development of a bridge between the Western bank and ultimately Randle Circle. Along this reconciled corridor will be a series of architectural interventions that serve to promote community involvement. Ultimately this thesis is about generating an urban continuity and the cultural vibrancy and understanding that such a connection would foster.

URBAN CATALYST:  
CONTINUING THE LEGACY OF MASSACHUSETTS AVENUE

by

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Thesis submitted to the Faculty of the Graduate School of the  
University of Maryland, College Park, in partial fulfillment  
of the requirements for the degree of  
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# Table of Contents

Acknowledgements .....	ii
Table of Contents .....	iii
List of Figures .....	v
Introduction: .....	1
<u>An Urban Reconciliation</u> .....	1
1- Urban Corridor: .....	4
<u>History of Massachusetts Avenue</u> .....	4
<u>Public Squares of Massachusetts Avenue</u> .....	7
<u>DC Penitentiary and DC General Hospital</u> .....	17
<u>Randle Circle</u> .....	19
<u>Fort Dupont Park</u> .....	20
<u>Anacostia River Bridges</u> .....	21
<u>Massachusetts Avenue Bridge</u> .....	22
2: Site Conditions .....	25
<u>Zoning and Reservation 13</u> .....	26
<u>Urban Fabric</u> .....	28
<u>Transportation Networks</u> .....	30
<u>Park and Open Spaces</u> .....	34
<u>Existing Proposals</u> .....	36
<u>Pedestrian Divisions</u> .....	39
3: Bridge as Catalyst .....	43
<u>Urban Fabric</u> .....	43
<u>Ponte Rialto</u> .....	44
<u>Ponte Vecchio</u> .....	47
<u>Pulteney Bridge</u> .....	50
<u>I-670 Cap</u> .....	53
<u>Illinois Toll-Way Oasis</u> .....	56
<u>The High Line</u> .....	59
<u>Olympic Sculpture Park</u> .....	63
<u>Conclusions</u> .....	65
4: Historical Background .....	67
<u>Native Americans</u> .....	67
<u>Marine Hospital</u> .....	68
<u>General Hospital</u> .....	69
<u>Homeless Shelter</u> .....	69
<u>Prison</u> .....	70
<u>Community Figures</u> .....	71
5: Theoretical Background .....	75
<u>Design of Cities</u> .....	75
<u>Collage City</u> .....	77
<u>Event Cities</u> .....	80
<u>Dichotomies</u> .....	81

6: Public Square Precedents.....	85
<u>Square as Orientation Device</u> .....	85
<u>Square as Residual Space</u> .....	87
<u>Squares as Formal Space</u> .....	88
7: Programmatic Strategies .....	91
<u>Diagrams of Connection and Public Space</u> .....	92
<u>Renovation</u> .....	94
<u>Reconnection</u> .....	95
<u>Reconciliation</u> .....	95
8: Design Proposal .....	96
Appendices.....	112
Bibliography .....	118

## List of Figures

Figure 1: Division of Massachusetts Avenue (author) .....	4
Figure 2: L'Enfant's Vision of Massachusetts (LoC and author) .....	6
Figure 3: Ellicott's Vision of Massachusetts (LoC and author) .....	6
Figure 4: Westmoreland Circle (author) .....	8
Figure 5: Ward Circle (author) .....	9
Figure 6: Naval Observatory (author).....	10
Figure 7: Sheridan Circle (author) .....	10
Figure 8: Dupont Circle (author) .....	11
Figure 9: Thomas Circle (author) .....	12
Figure 10: Mount Vernon Square and the Historical Society of Washington DC (author).....	13
Figure 11: Columbus Circle (author).....	13
Figure 12: Stanton Square (author).....	14
Figure 13: Lincoln Square (author).....	15
Figure 14: Scalar Comparison of Massachusetts Avenue Squares (author) .....	17
Figure 15: Reservation 13 (author) .....	18
Figure 16: Massachusetts and 19th (author) .....	19
Figure 17: Randle Circle (author) .....	20
Figure 18: Fort Dupont Park Gardens (author).....	21
Figure 19: 11th Street Bridge Park (OLIN & OMA).....	21
Figure 20: Allen Bridge (Bridge book).....	22
Figure 21: Completing Massachusetts Avenue (author).....	24
Figure 22: Massachusetts Avenue Corridor at the Anacostia (author) .....	25
Figure 23: Zoning Along Massachusetts Avenue (author) .....	26
Figure 24: Reservation 13 (author) .....	27
Figure 25: Space Negative (author) .....	28
Figure 26: Space Positive (author).....	29
Figure 27: Massachusetts Avenue Corridor (author).....	30
Figure 28: Highway, Train, and Metro (author) .....	32
Figure 29: Regional and Local Bus Lines (author).....	32
Figure 30: Surface Parking Lots (author) .....	33
Figure 31: Bike Share Stations (author).....	34
Figure 32: Public Spaces and the Anacostia Waterfront (author).....	34
Figure 33: Outdoor Spaces (author).....	35
Figure 34: Anacostia Waterfront (NCPC) .....	36
Figure 35: Proposal for Reservation 13 (EEK).....	37
Figure 36: Memorial Bridge (bing maps) .....	38
Figure 37: Massachusetts and 19th SE (google.com).....	39
Figure 38: Continuing the Axis (author).....	40
Figure 39: Removing Barriers (author).....	40
Figure 40: Scaling the Street (author).....	41
Figure 41: Pedestrian Connection (author) .....	41
Figure 42: Continuity (author) .....	44
Figure 43: Venice, Figure Ground (author) .....	46

Figure 44: Rialto Bridge Aerial (bing maps) .....	47
Figure 45: Rialto Bridge Perspective (author) .....	47
Figure 46: Florence Figure Ground (author) .....	49
Figure 47: Ponte Vecchio Aerial (bing maps) .....	50
Figure 48: Ponte Vecchio Perspective (author) .....	50
Figure 49: Bath Figure Ground (author) .....	52
Figure 50: Pulteney Bridge Aerial (bing maps) .....	53
Figure 51: Pulteney Bridge Perspective (author) .....	53
Figure 52: Columbus Figure Ground (author) .....	55
Figure 53: I-670 Cap Aerial (bing maps) .....	55
Figure 54: I-670 Cap Perspective (author) .....	56
Figure 55: Chicago Figure Ground (author) .....	58
Figure 56: Illinois Toll-Way Oasis Aerial (bing maps) .....	59
Figure 57: Illinois Toll-Way Oasis Perspective (author) .....	59
Figure 58: NYC Figure Ground (author) .....	62
Figure 59: High Line Park Aerial (bing maps) .....	62
Figure 60: High Line Park Perspective (author) .....	63
Figure 61: Seattle Figure Ground (author) .....	64
Figure 62: Olympic Sculpture Park Aerial (bing maps) .....	65
Figure 63: Olympic Sculpture Park Perspective (author) .....	65
Figure 64: People and Activity (author + google images) .....	72
Figure 65: Axial Relationships of Florence, left (Bacon) .....	77
Figure 66: Axial Relationships of St. Petersburg, right (Bacon) .....	77
Figure 67: Depth, Space, Being, and Contrast (author) .....	81
Figure 68: Piazza della Santissima Annunziata (author) .....	85
Figure 69: Charlotte Square (author) .....	86
Figure 70: Praca do Comercio (author) .....	86
Figure 71: Piazza della Cisterna (author) .....	87
Figure 72: Grubbensparken (author) .....	88
Figure 73: Campidoglio (author) .....	89
Figure 74: Piazza San Marco (author) .....	89
Figure 75: Piazza San Pietro (author) .....	90
Figure 76: Phasing Sketch (author) .....	91
Figure 77: Diagrams of Connection and Public Space (author) .....	92
Figure 78: Section and Dimensions of Site (author) .....	93
Figure 79: Conditions to Remain, Lincoln Park, RFK, Fort Dupont Neighborhood (author) .....	93
Figure 80: Mixed Use Intervention at Reservation 13 (author) .....	94
Figure 81: Gateway District at Randle Circle (author) .....	94
Figure 82: Parkscape Along Waterfront (author) .....	95
Figure 83: Establishing Connection (author) .....	95
Figure 84: Harnessing Potential of Connection (author) .....	95
Figure 85: Continuing the Legacy (author) .....	97
Figure 86: Sketch of Pedestrian Circle (author) .....	97
Figure 87: Sketch of Public Pool (author) .....	98
Figure 88: Sketch of Skatepark Underpass (author) .....	99

Figure 89: Site Plan (author).....	100
Figure 90: Places Diagram (author).....	101
Figure 91: Memorial Circle Plan (author) .....	102
Figure 92: Memorial Circle Perspectival Section (author) .....	103
Figure 93: Bridge and Pylon Details (author).....	104
Figure 94: Pool Plan (author).....	105
Figure 95: Recreation Plan (author).....	105
Figure 96: Skatepark Section (author) .....	106
Figure 97: Aerial Perspective (author).....	106
Figure 98: Memorial Plaza (author).....	107
Figure 99: Waterfront Park (author) .....	107
Figure 100: Pedestrian Promenade (author) .....	108
Figure 101: Monumental View at Night (author) .....	108
Figure 102: Bicyclist and Pedestrian Bridge (author).....	109
Figure 103: Pool Deck (author) .....	109
Figure 104: Recreation Park (author) .....	110
Figure 105: Skate Park (author).....	110
Figure 106: A Bridge for Community (author).....	111

## Introduction:

### An Urban Reconciliation

*“Make big plans, aim high in hope and work, remembering that a noble, logical diagram once recorded will never die, but long after we are gone will be a living thing asserting itself with every growing insistency. Remember that our sons and grandsons are going to do things that would stagger us.”<sup>1</sup>*

*Daniel Burnham*

*“Washington’s monumental core is but an outline sketch of a great city to be, a grand skeleton with noble limbs but little flesh. In those hundreds of empty acres I see but an unfinished canvas, an incomplete portrait that craves for completion. The seed of this inspiring national project was placed by its founders and past builders; we must not leave it to rest before it has borne fruit.”<sup>2</sup>*

*Leon Krier*

Washington, DC is known for its iconic neoclassical buildings portraying the power of democracy and freedom. The Lincoln Memorial and its statue stare solemnly towards the seat of Congress across the mall reminding the leaders of our nation that we are stronger united than divided. The Jefferson Memorial greets the sitting President’s gaze in the morning as a sign that their power is granted by the people of every state. These icons

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<sup>1</sup> Thomas S. Hines, *“No Little Plans: The Achievement of Daniel Burnham* (Chicago: Art Institute of Chicago, 1988), 105.

<sup>2</sup> Iris Miller. *Washington in Maps: 1606-2000* (New York: Rizzoli International Publications, 2002), 162.

stand as symbols of the strength of America's democracy and of the trials and tribulations our country has been through. Images of the National Mall filled with spectators for both celebrations and public protests stir equally powerful vestiges of democracy.

From all of the iconography throughout the city Washington, DC stands as a beacon of democracy for the world. Its citizens have unequalled access to public institutions of education in the form of museums, monuments, and libraries. These institutions serve to empower the citizens of the district and the nation.

However, the underlying truth is that there are parts of this city that have been left behind. The Anacostia River and a subsequent river front highway divide a community from institutional and waterfront amenities. Even more problematic is the state of the pedestrian experience from one side of the river to the other. Vehicles are given priority over human beings. This leaves a community marginalized from the pedestrian friendly quality of neighborhoods northwest of the river.

There is an opportunity to reconnect the two sides of the river. Massachusetts Avenue, the longest axial corridor in the district, terminates in a site that is due for development. This site is the current

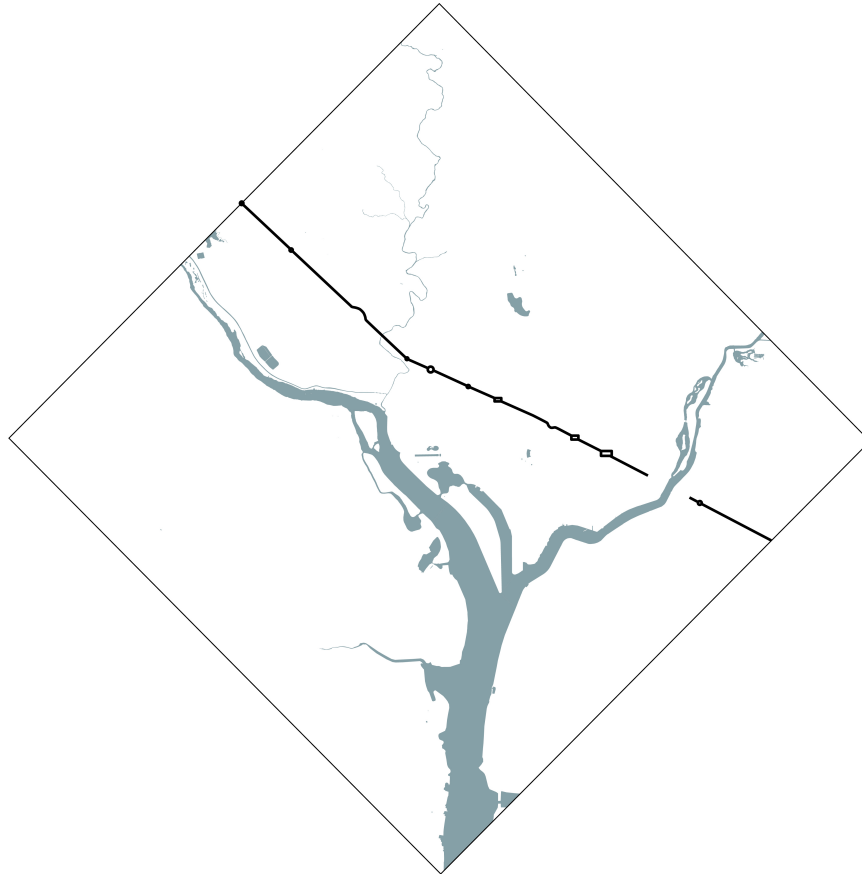
home of DC Penitentiary and DC General Hospital. It is one of the largest undeveloped tracts of land in the city and occupies prime waterfront real estate. Plans are in the works for a mixed-use residential community that will continue the urban language of Washington, DC. These plans take into account the economic and cultural potential of the particular site. However, the opportunity exists to continue a great corridor across the Anacostia River and reunite the East and West side of the city.



## 1- Urban Corridor:

### History of Massachusetts Avenue

Washington, DC is a city divided. One need not look further than the current state of Massachusetts Avenue to see that this is true (fig. 1). The corridor that connects “more public spaces - Dupont, Scott, Thomas, Mount Vernon, Columbus, Stanton and Lincoln – than any other avenue”<sup>3</sup> is seemingly unresolved.



**Figure 1: Division of Massachusetts Avenue (author)**

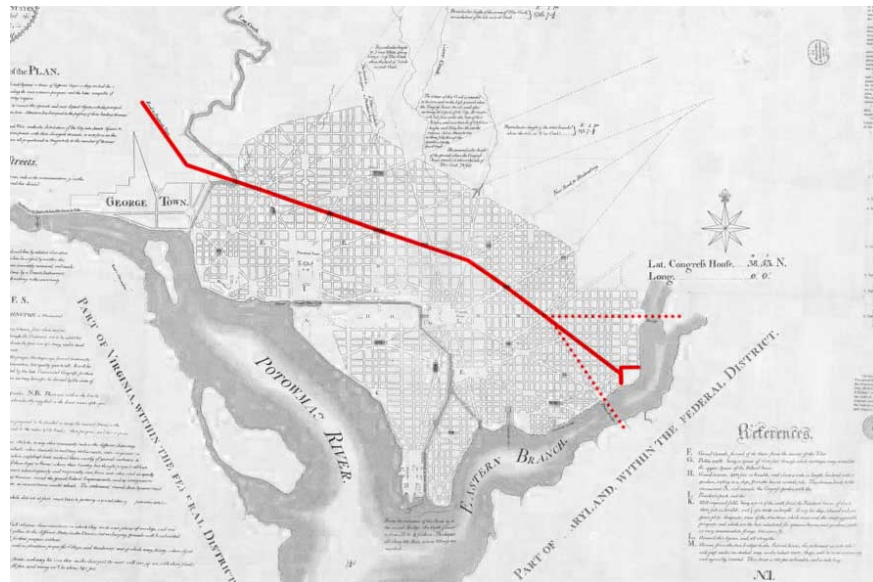
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<sup>3</sup> Michael Bednar, *L'Enfant's Legacy: Public Open Spaces in Washington, D.C.* (Baltimore: The Johns Hopkins University Press, 2006), 13.

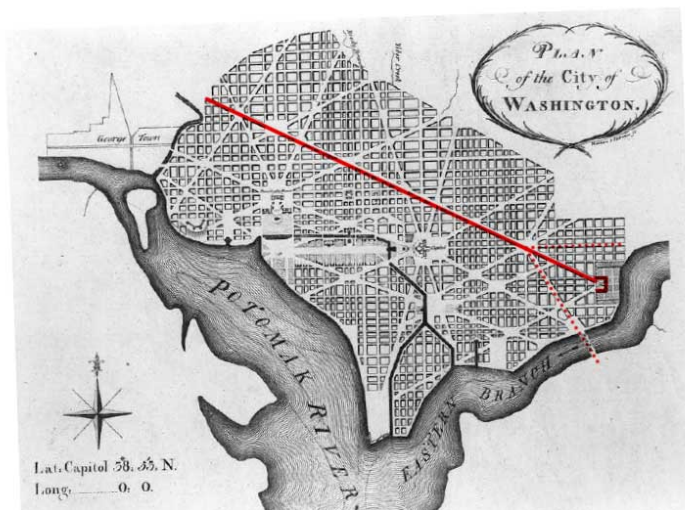
The division of the avenue is a consequence of the development of Washington, DC. Two plans, one by Pierre Charles L'Enfant and the other by Andrew Ellicott shaped the present form of the city. The initial plans by L'Enfant and Ellicott both highlighted Massachusetts Avenue as a great connector through the city. However, the banks of the Anacostia River and Rock Creek bound the city. In L'Enfant's plan the avenue flowed radially from hill to hill with squares providing "points of orientation that are visible from other points of orientation. As places of identity in the special structure, they help residents and visitors find their way around the city."<sup>4</sup> This means of navigating the city lead to the kinked nature of avenue (fig. 2). This plan of Massachusetts skirted prominent federal centers with turns Northwest of Rock Creek and North of present day Union Station. It prioritized the public and the connection they shared with their neighbors and their environment.

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<sup>4</sup> Bednar, *L'Enfants Legacy*, 13



**Figure 2: L'Enfant's Vision of Massachusetts (LoC and author)**



**Figure 3: Ellicott's Vision of Massachusetts (LoC and author)**

Unfortunately, the square as an orientation device within the city was left unexecuted. The plan was changed when Andrew Ellicott took over the design for the national capital and ultimately Massachusetts Avenue (fig. 3). Ellicott's plan called for "straightening Massachusetts Avenue, a long thoroughfare crossing the city from northwest to

southeast.”<sup>5</sup> Two important bits of information can be gleaned from this statement. The first is that the principle of view corridors was eliminated for a more linear system of movement. The second is that the avenue was designed as a great connector. As the city has developed one side of Massachusetts Avenue has maintained this quality. The western portion connects more than ten public squares and circles from Westmoreland Circle in the Northwest to the Anacostia River in the Southeast. The much shorter Eastern segment runs from the lone Randle Circle to the Southern edge of Washington, DC. It is cut off from the more celebrated squares and circles of the northwestern corridor as a result of the original plans (fig. 1).

### *Public Squares of Massachusetts Avenue*

The procession along Massachusetts Avenue is marked by a variety of squares with various programs. From University buildings to single-family houses the avenue is a diverse backbone of the city. Westmoreland Circle marks the intersection of Massachusetts and Western Avenues and it is the terminus of the avenue in the Northwest (fig. 4). A church on axis with the avenue marks the terminus of the corridor. As one continues along the avenue the character begins to

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<sup>5</sup> Bednar, *L’Enfants Legacy*, 10

change. Ward Circle frames the intersection of Nebraska Avenue and Massachusetts Avenue (fig. 5). The circle is surrounded by the facilities of American University and the abutting condos and apartments. However, the square feels loosely defined as the buildings occupy large parcels of land. A similar condition of openness marks the passage along the perimeter of the Naval Observatory (fig. 6). This government facility diverts Massachusetts Avenue to its northern side with trees lining the opposite edge.

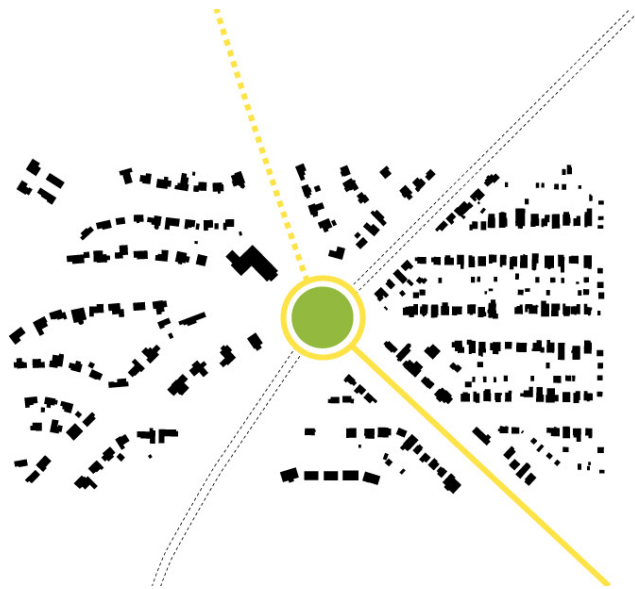


Figure 4: Westmoreland Circle (author)



**Figure 5: Ward Circle (author)**

Massachusetts Avenue continues past the Naval Observatory and over Rock Creek Park before reaching Sheridan Circle (fig. 7). Sheridan Circle is the threshold to Embassy Row and creates an inflection in the artery. This kink in the avenue realigns the corridor with the geometry of Ellicott's plan for the federal city. Embassy Row continues along Massachusetts Avenue through Dupont Circle establishing a connection with another cultural node of the city (fig. 8). This circle marks one of the historic centers of public activity within Washington, DC. Dupont Circle is the first square along Massachusetts that serves as a connection to the Metro. This transit system provides access to nodes across the city connecting the circle with the whole metropolitan area. The arterial avenues that draw tourists and locals into the heart of the city reinforce this symbolic connection.



Figure 6: Naval Observatory (author)



Figure 7: Sheridan Circle (author)

Dupont Circle is formed at the intersection of Massachusetts, New Hampshire and Connecticut Avenues. Connecticut Avenue tunnels underneath the circle while Massachusetts Avenue circumnavigates the public park on grade. The vertical inflection of Connecticut Avenue is a precedent for tunnels throughout the urban fabric in Washington DC. The

technique is employed along Massachusetts Avenue itself at Thomas Circle (fig. 9) This circle, the intersection of Massachusetts Avenue, Vermont Avenue and 14<sup>th</sup> Street, prioritized the pedestrian experience by burying the major thoroughfare. “In 1941 a four-lane tunnel with slip ramps was constructed to take [Massachusetts] under the park.”<sup>6</sup> This tunnel allows pedestrians to engage with and enjoy the scale of adjacent buildings such as the National City Christian Church. Meanwhile, Massachusetts Avenue continues under Thomas Circle and onwards to Mount Vernon Square.

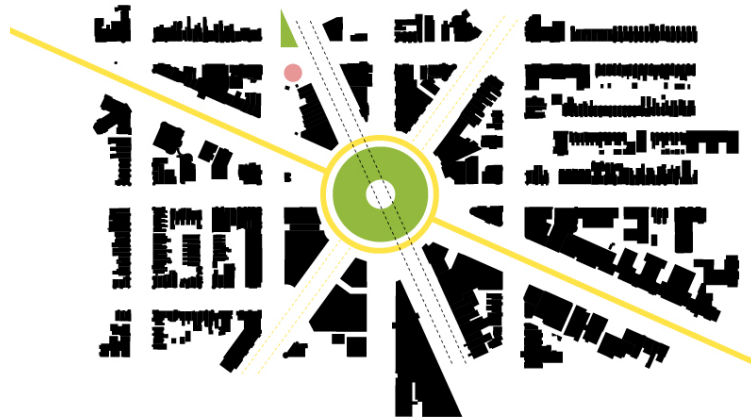
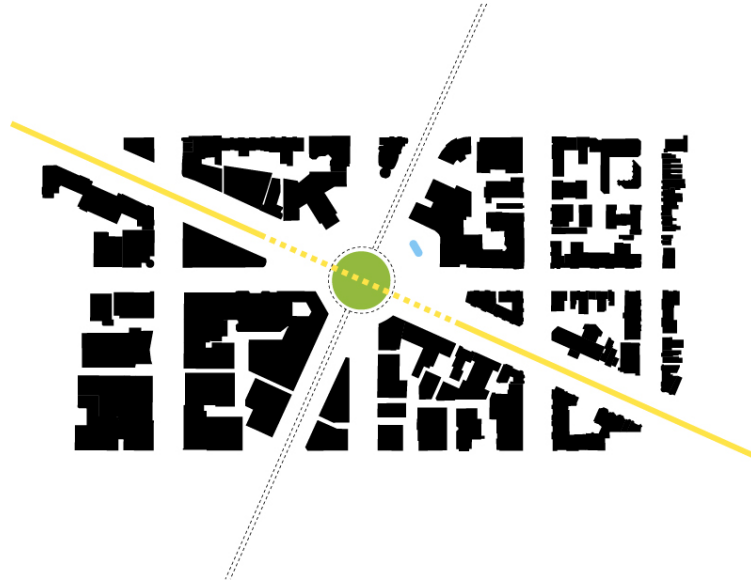


Figure 8: Dupont Circle (author)

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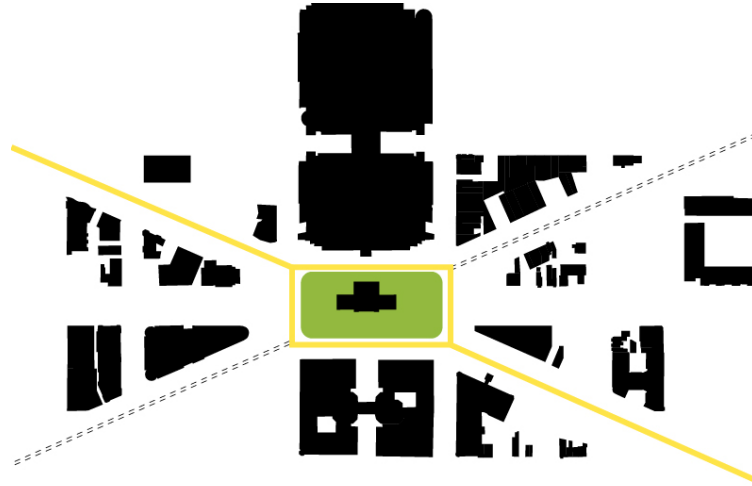
<sup>6</sup> Bednar, *L'Enfants Legacy*, 171





**Figure 9: Thomas Circle (author)**

Mount Vernon Square is the site of Washington, DC's Convention Center (fig. 10). It is also the only square along Massachusetts Avenue that is occupied by a building. Massachusetts winds its way around the Historical Society of Washington, DC and traverses I-395 until reaching Columbus Circle (fig. 11). This public space serves as a prominent gateway to the city via Union Station.



**Figure 10: Mount Vernon Square and the Historical Society of Washington DC (author)**



**Figure 11: Columbus Circle (author)**

Columbus Circle is a point of entry to the city for travellers on regional trains and the metro. It also provides a different sense of enclosure than the other squares after Rock Creek Park. The Square is fronted by Daniel Burnham's Union Station and opens outwards to the Lower Senate Park. This tree-covered park between the U.S. Congress

and Massachusetts Avenue elevates the avenue's status within the city as a great connector. The Union Station Arcade is within eyeshot of the National Capitol. The dome stands above the tree line on axis with the entry to this great public space. While the architectural symbolism is striking, Columbus Circle also serves as a threshold the transition between the commercial district of the federal city and the residential squares to the Southeast. Continuing along Massachusetts Avenue for a few blocks further in that direction one would find Stanton Square (fig. 12).

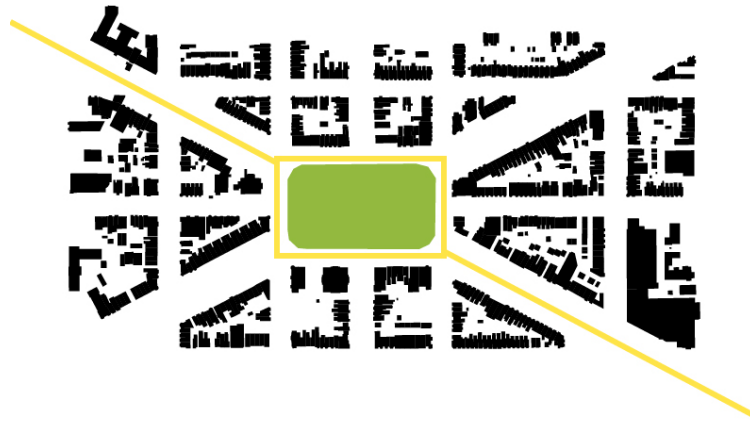


Figure 12: Stanton Square (author)

Stanton Square is primarily made up of small-scale apartments and row houses with an elementary school, church and temple in the mix. This square marks the intersection of Maryland and Massachusetts

Avenues. The public park that the square encloses diverts Massachusetts Avenue around in a counterclockwise direction. The square marks a symmetrical intersection of avenues and streets.

This is an interesting counterpoint to Lincoln Square (fig. 13). This square is symmetrical across East Capitol Street with two diagonal streets to the east. Lincoln Square has a rich history of social and political activism dating back to the Civil War. Lincoln Square brings the progression of traffic and pedestrian squares along Massachusetts Avenue to an end.

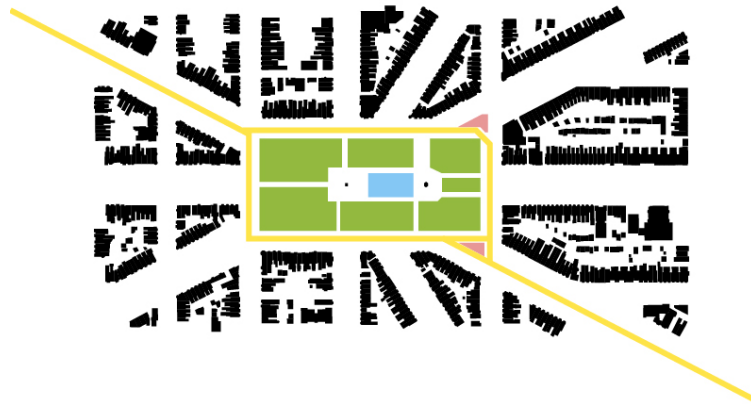


Figure 13: Lincoln Square (author)

This history of Lincoln Square adds to the legacy of Massachusetts Avenue within the city. It has become clear that the avenue functions as a connective corridor from Westmoreland Circle to Lincoln Square. After

Lincoln Square the axis continues until it comes into conflict with the DC Penitentiary. Massachusetts Avenue picks up again across the river and I-295. Randle Circle marks the continuation of Massachusetts Avenue as a corridor of public squares. The Avenue continues southeast and terminates without fanfare at Southern Avenue. This lack of resolution along the southeastern segment of Massachusetts Avenue should be remedied.

The potential to apply the lessons of the public squares of Massachusetts Avenue to both the DC General Hospital compound and Randle Circle is examined through a scalar and typological comparison (fig. 14). DC General has the most in common with Ward Circle and American University, whereas Randle Circle is similar to Westmoreland Circle. This observation creates a parenthetical relationship between Randle Circle and Westmoreland Circle. It suggests that the use of the current DC general compound could mirror the institutional nature of Ward Circle.

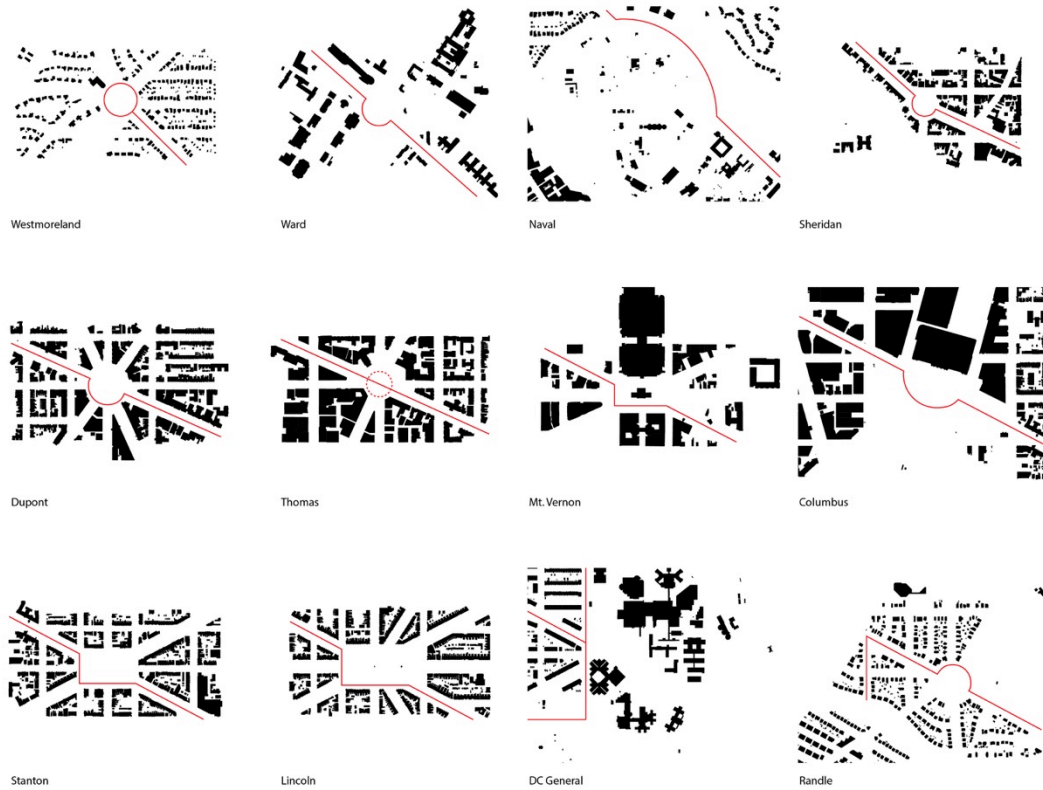


Figure 14: Scalar Comparison of Massachusetts Avenue Squares (author)

### DC Penitentiary and DC General Hospital

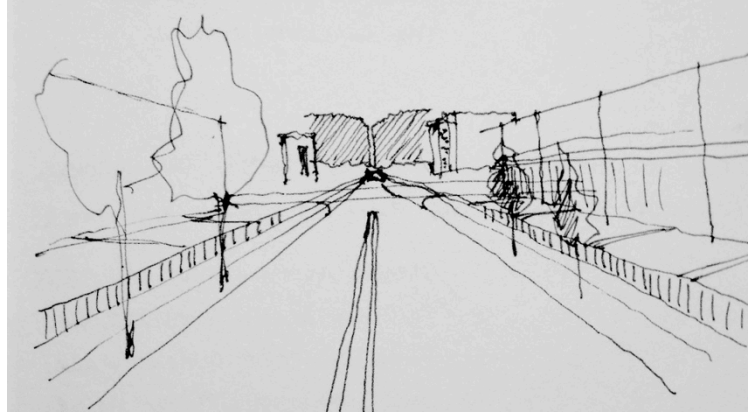
The termination of Massachusetts Avenue on the west side of the Anacostia is the current DC Penitentiary and DC General Hospital compound (fig. 14). These institutions make up what is referred to as Reservation 13 a 67 acre parcel which is due for renovation. This large campus is an edge of the Lincoln Park neighborhood and divides that community from the Anacostia River. A series of parking lots and grassy medians stretch across the property until the topography drops

downwards towards the waterfront. The few trees on these medians serve as a bit of relief from the oppressive quality of the flanking buildings.

Even as a physical and psychological divider the government compound maintains a semblance of the axis that Massachusetts Avenue cuts through the city. The buildings of Reservation 13 respect the axis and frame views that show the potential for an intervention on the site. From the intersection of Massachusetts Avenue and 19<sup>th</sup> Street one can see the continuation of Massachusetts Avenue across the Anacostia River (fig. 16). This view alone begs for the creation of a physical connection or framework that creates a dialogue between the East and the West.



Figure 15: Reservation 13 (author)



**Figure 16: Massachusetts and 19th (author)**

### *Randle Circle*

Across the Anacostia River, Randle Circle invokes the language of the L'Enfant plan for Washington, DC (fig. 17). The lone circle east of the Anacostia River resolves the intersection of Minnesota and Massachusetts. Even the intersection of Pennsylvania Avenue and Minnesota Avenue does not receive this celebrated treatment. This preferential urban pattern continues the language of Massachusetts Avenue as a corridor of connection and provides the public an entry to one of Washington, DC's largest recreational amenities.



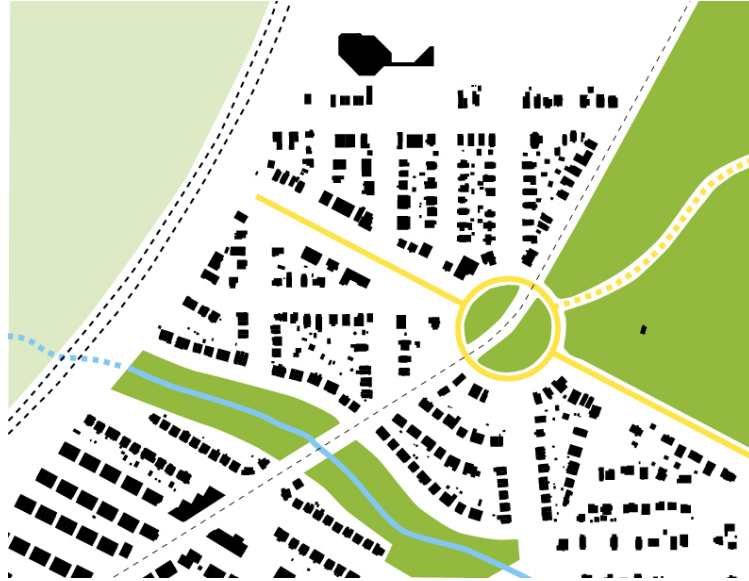


Figure 17: Randle Circle (author)

### Fort Dupont Park

It is clear that Massachusetts Avenue in Southeast DC has a different character than the public spaces areas to the Northwest. However, that does not mean that the corridor no longer marks the procession of public spaces through the city. The abundance of trees that line the north of the avenue until the city's edge is Fort DuPont Park. This public amenity is one of the largest open spaces in the city and provides recreation and agricultural opportunities to the residents of southeast. The urban gardens that are tucked away within this park serve as a reminder of the city's more natural roots. The farms also serve as an additional public square with trees framing the functional void (fig. 18)



**Figure 18: Fort Dupont Park Gardens (author)**

### Anacostia River Bridges

The Anacostia River is bridged at South Capitol Street, 11<sup>th</sup> Street, Pennsylvania Avenue, East Capitol Street, and Benning Road. However, as much connectivity as these bridges provide the quality of the pedestrian experience is lacking. A future proposal for the development of an 11<sup>th</sup> street pedestrian bridge is in the works, which will benefit the Anacostia neighborhood of Washington, DC. However, the connection provides diminishing impact the further North and South one moves. At the Fort Dupont neighborhood along Massachusetts Avenue the benefits of the 11<sup>th</sup> Street Bridge Park may be relatively negligible.

**Figure 19: 11th Street Bridge Park (OLIN & OMA)**

### Massachusetts Avenue Bridge

Through the years plans for a bridge across the Anacostia at Massachusetts Avenue have been drawn. In 1897 “a study made by District Engineer Colonel Charles J. Allen, under [...] Congressional authorization, recommended extending Massachusetts Avenue across the Anacostia with a 2,517 foot steel truss bridge for general traffic and trolley.”<sup>7</sup> This bridge would have spanned the existing CSX line and provided Massachusetts Avenue a mass transit line from the East to the West side of the Anacostia River (fig. 20). Several years later the Senate Park Commission proposed that Reservation 13 would be designated as an urban greenway that connected Massachusetts Avenue to Fort Dupont Park. This proposal reinforced the principle that Massachusetts Avenue was the people’s corridor through the city.

**Figure 20: Allen Bridge (Bridges and the City of Washington)**

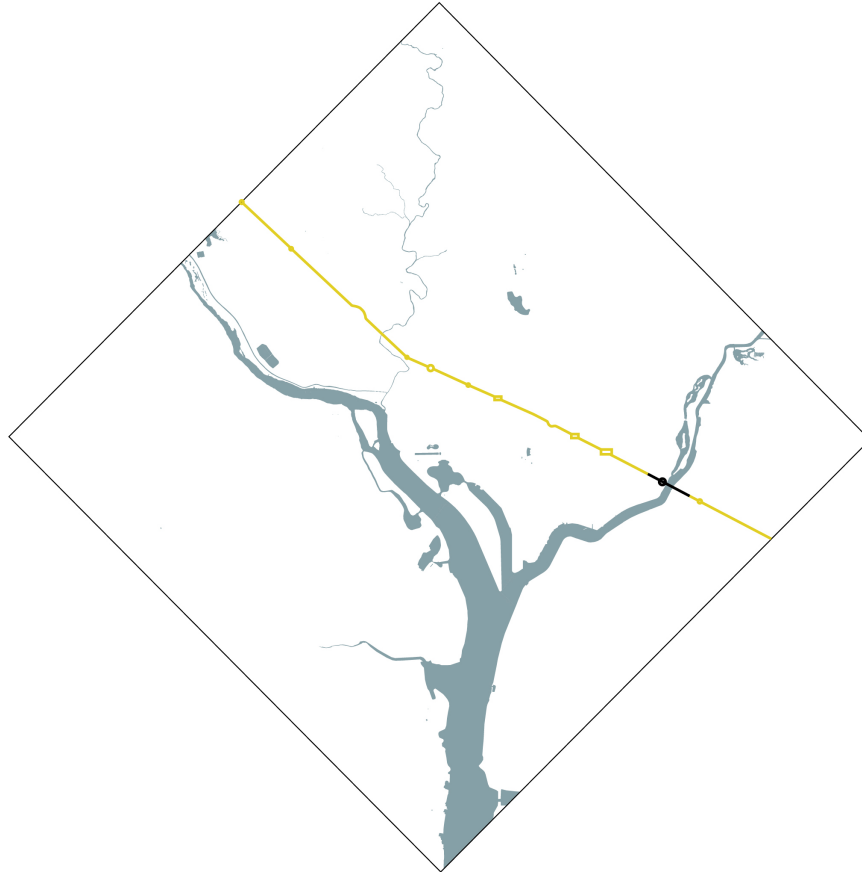
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<sup>7</sup> Donald Beekman Myer, *Bridges and the City of Washington* (Washington, D.C.: U.S. Commission of Fine Arts, 1983), 53.

The National Capital Park and Planning Commission reintroduced the idea of a bridge in 1929. Part of this plan proposed an Eastern section of the National Mall that would have provided “this less affluent section of town an aesthetic amenity of which future generations can only dream. Devising a traditional French boulevard enclosed by neoclassical buildings and embellished by a park at Lincoln Square, this was to have been a realization of L’Enfant’s vision.”<sup>8</sup> In addition to the neoclassical boulevard this scheme described Massachusetts Avenue as a point of connection and extension of the corridor across the Anacostia River. The avenue would pass through Lincoln Park and continue across the River to Randle Circle. The avenue would be the only axial street running the entire length of Washington, DC (fig. 21).

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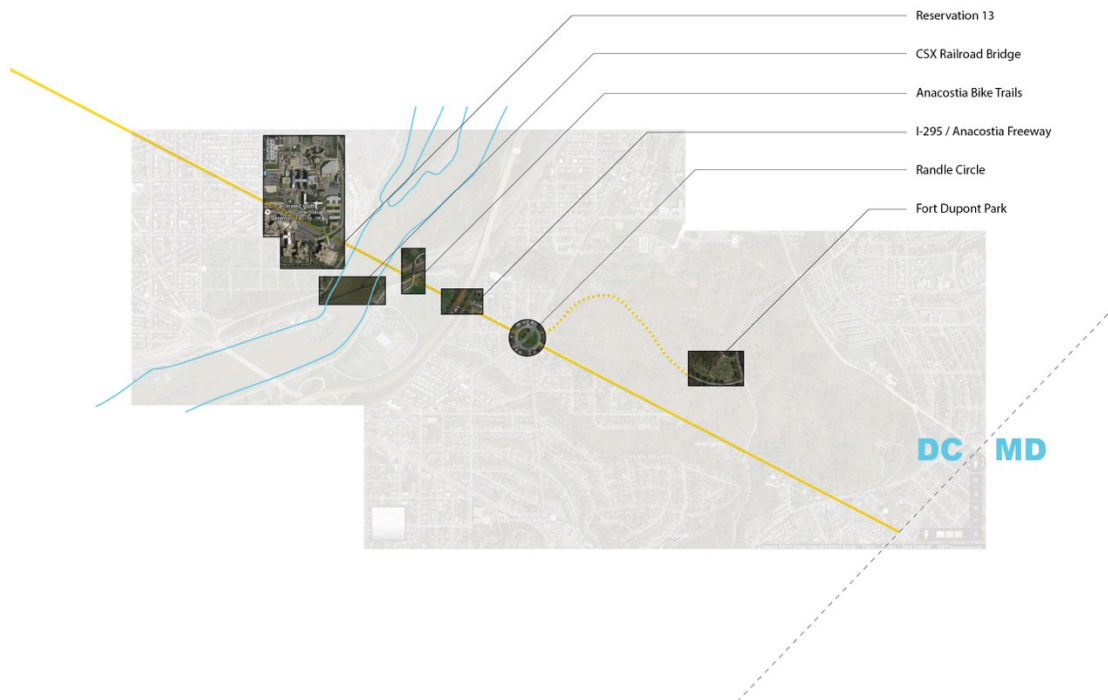
<sup>8</sup> Iris Miller. *Washington in Maps: 1606-2000* (New York: Rizzoli International Publications, 2002), 123.



**Figure 21: Completing Massachusetts Avenue (author)**

## 2: Site Conditions

Examining the axis of Massachusetts Avenue corridor across the Anacostia River reveals a site layered with design opportunities. From Reservation 13 in the northwest to Randle Circle and Fort Dupont Park in the Southeast the site provides an interesting array of obstacles to design around (fig. 22). However, these complications pale in comparison to the positive impacts that mending the avenue could have on the city. These benefits are laid out in the following analysis.



**Figure 22: Massachusetts Avenue Corridor at the Anacostia (author)**

### Zoning and Reservation 13

As discussed in the previous chapter the Anacostia River creates a geographic and political fissure within the urban language of the Massachusetts Avenue corridor. The division occurs at the site of Reservation 13 where the government facilities of DC General Hospital and DC Penitentiary clash with the urban language of L'Enfant and Ellicott. The tension between the Lincoln Park neighborhood and the Hill East compound is depicted in the zoning of the site (fig. 23). Reservation 13 is broken down into four different zones H-1, H-2, H-3, and H-4. The numerical values of the zones correspond to the FAR for the lots. As such the lower density is towards the West while the higher density is to the East. Further information on the zoning can be found in the appendices.

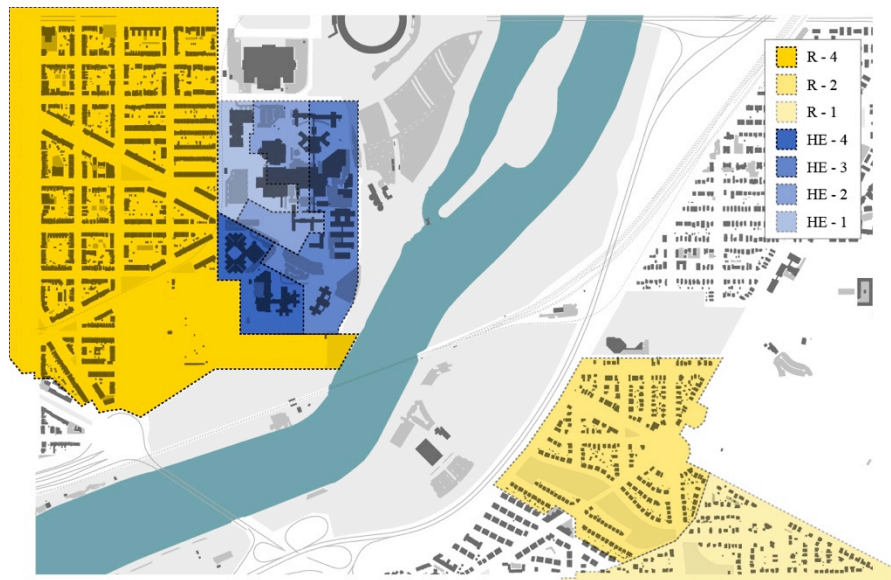
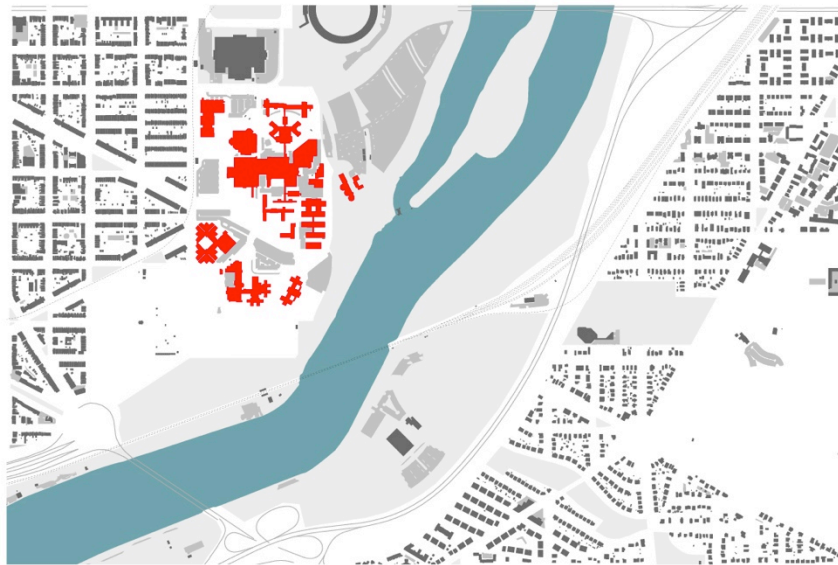


Figure 23: Zoning Along Massachusetts Avenue (author)

The zoning requirements outline a general interest in providing health services at the site of Reservation 13. Since the compound (fig. 24) is due to be developed this language hints at a hybridization of housing and health care development along this large swath of land. The descriptions of desired and required uses will factor into any design for Reservation 13. They will also inform the language that carries across the Anacostia River to the gateway of Randle Circle.



**Figure 24: Reservation 13 (author)**





Figure 25: Space Negative (author)

The space negative (fig. 25) and space positive (fig. 26) drawings of the surrounding area reveal the scale of division between east and west banks of the river. The wide swath of space is the result of the geographical character of the Anacostia River. The creation of a waterfront park system on the east bank of the river more than doubles the size of the urban fissure. In addition to the clear division between sides of the city the maps begin to portray a difference in housing typology. On the west side of the river the blocks are much more tightly packed with row houses. The east side of the river is dominated by single-family detached housing. There is also a clear difference between the types of streets to the south.

Some other apparent differences in the edge conditions are visible in these spatial drawings. The west side of the river has a more orthogonal separation between physical plant and the negative space. The east side of the river has a more curvilinear relationship with the void. The dichotomy between the grid and the curve further displays the division between the planning of the two sides of the river.

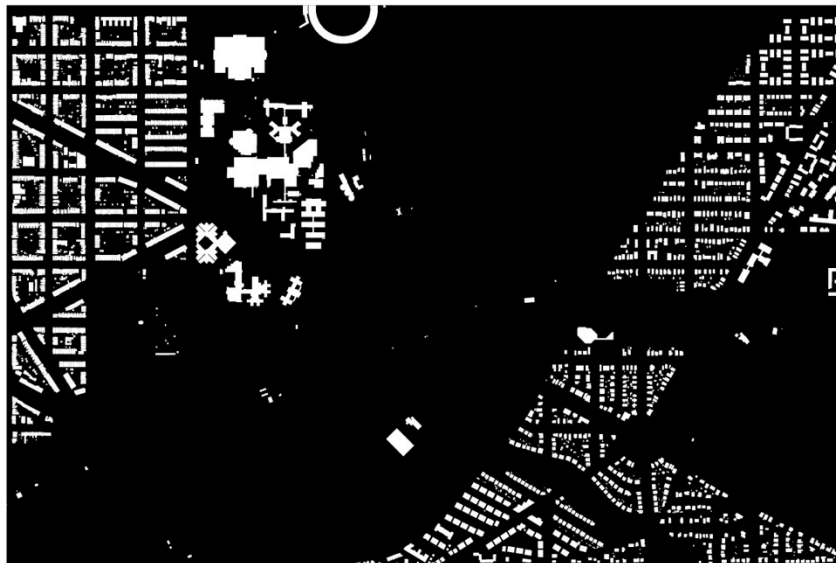


Figure 26: Space Positive (author)

Another difference between the two sides of the river is that the west bank has a campus of larger scale buildings closer to the water. In contrast the neighborhood is held away from the eastern waterfront but only two buildings permeate the boundary between. This is an important distinction because the eastern bank has more land available for a potential connection to the waterfront.

## Transportation Networks

Massachusetts Avenue is a well-lined street as it approaches Reservation 13. It has row houses on either side with yards, retaining walls and pedestrian friendly sidewalks. This street condition ends abruptly at 19<sup>th</sup> Street SE where the Penitentiary and Hospital compound reside. On the opposite side of the Anacostia River single-family homes and Fort Dupont Park line Massachusetts Avenue after Randle Circle (fig. 16). As described in the previous chapter the division between these two sides of the avenue is incongruous with the revised plans by Andrew Ellicott. This design for the city argued for Massachusetts Avenue to be a “long thoroughfare crossing the city from northwest to southeast.”<sup>9</sup>

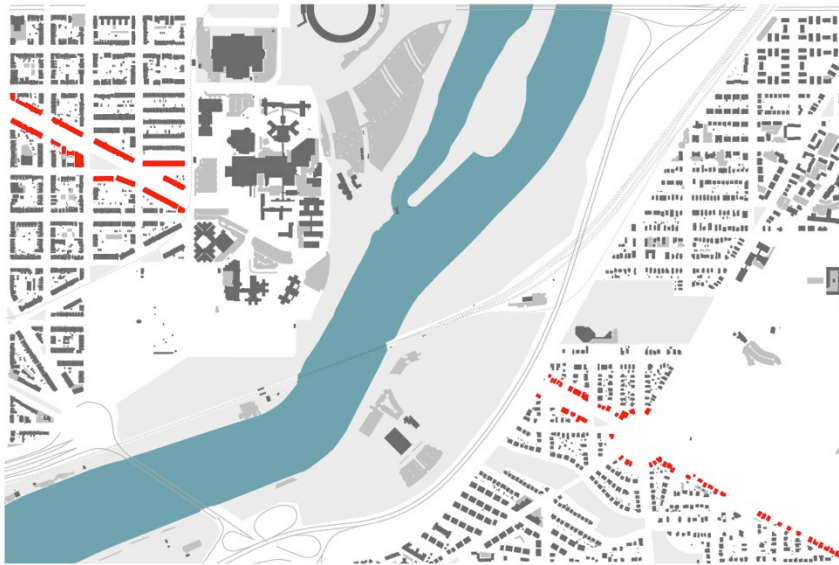


Figure 27: Massachusetts Avenue Corridor (author)

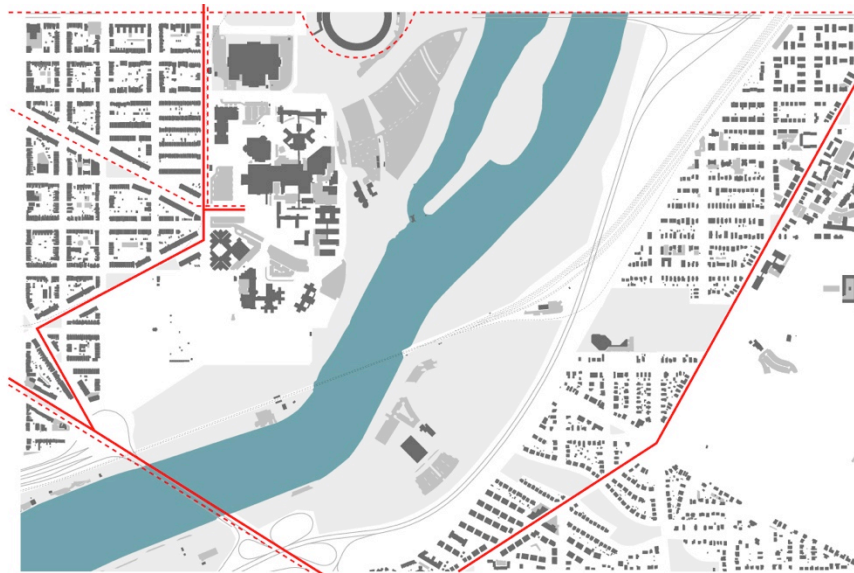
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<sup>9</sup> Bednar, *L'Enfants Legacy*, 10

Perpendicular to the Massachusetts Avenue corridor run three other lines of transportation. The westernmost artery is the Metro that runs southwards along the edge of Reservation 13. The Metro runs beneath the site and could serve as a potential catalyst for development of the western portion of the corridor. Things get more complicated at the second transportation right of way. As the axes crosses the Anacostia River the CSX railway adds another layer of division. This railway bridges the river and creates an obstacle to any design for unifying the city. The third and most formidable barrier along the Massachusetts corridor is I-295. This arterial connection through Washington, DC is multifaceted and yet laden with design opportunities. In the event of a future renovation of the highway every effort should be made to remedy its status as a physical obstacle between the eastern neighborhood and the Anacostia River.



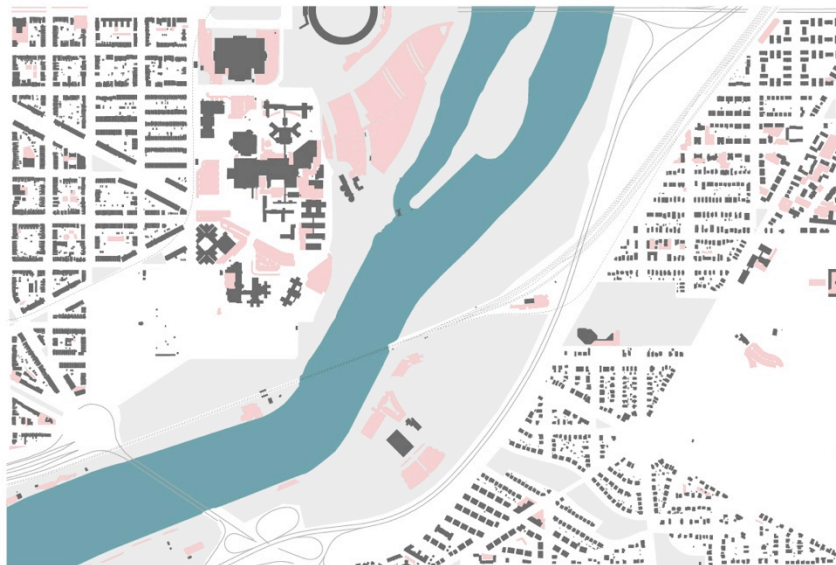
**Figure 28: Highway, Train, and Metro (author)**



**Figure 29: Regional and Local Bus Lines (author)**

The regional bus routes are an integral part of the transportation network in Washington, DC (fig. 29). Reservation 13 is a node for both the regional and local networks. The intersection of 19<sup>th</sup> street and Massachusetts Avenue marks the current entry for the busses into the Reservation 13 compound. The circuitous route travels along Minnesota

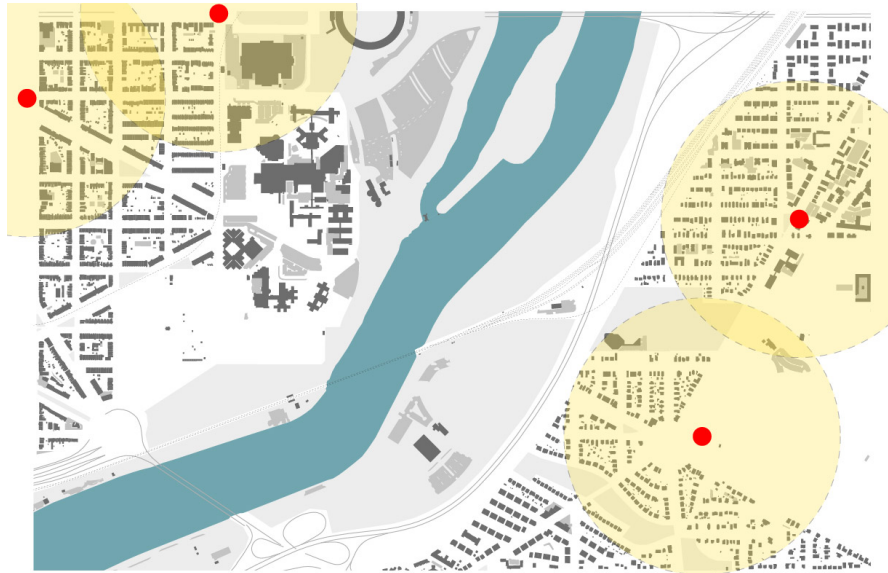
Avenue, across the Anacostia River at Pennsylvania Avenue and then up through the Lincoln Park neighborhood to the Penitentiary. A more efficient system would be available if the Massachusetts Avenue corridor were an artery across the river. Bridging the river could severely reduce travel times from Fort Dupont Park to the Stadium Armory Metro Station. It would allow pedestrians and bicyclists an alternative route to the vehicular bridges of East Capital Street and Pennsylvania Avenue.



**Figure 30: Surface Parking Lots (author)**

The bus and high-speed transit systems are supplemented by the ever more popular Capital Bike Share program a public-private partnership. The locations of the bike share stations near and around the site show the overlap of walking radii in order to improve access to the service (fig. 31). The addition of a kiosk within the bounds of

Reservation 13 could provide bikers access to the metro and waterfront trails. By prioritizing bicyclists and pedestrians the bridge could be transformative for the community by creating a place for dialogue and engagement rather than a place of movement.



**Figure 31: Bike Share Stations (author)**

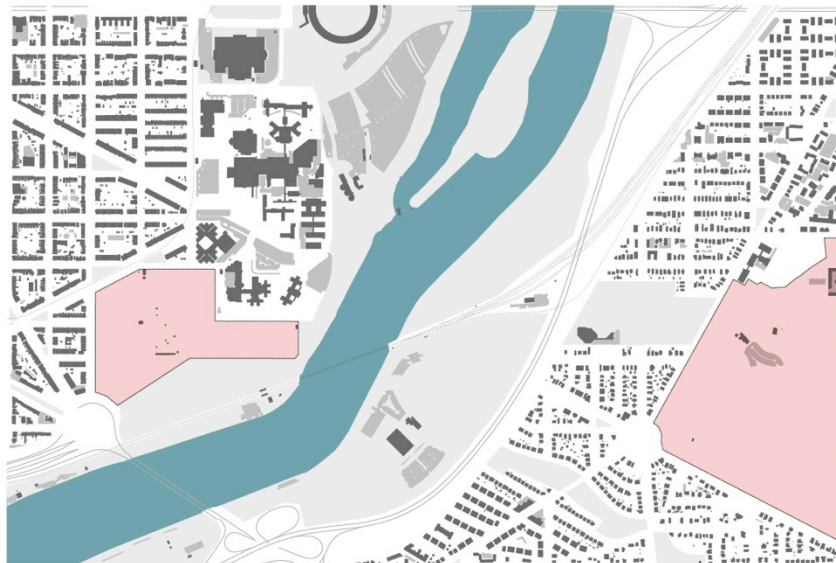
*Park and Open Spaces*



**Figure 32: Public Spaces and the Anacostia Waterfront (author)**



The parks and open spaces along the Anacostia River waterfront create an environmental buffer between the river and the city. These spaces could provide excellent opportunities for recreation and commune with nature. However, the obstacles of Reservation 13 and the Anacostia Freeway make it difficult to access the potential of these amenities. By creating porosity through the Anacostia Freeway and down to the Northwest waterfront this thesis could reengage the waterfront as well as unlock an amenity and create a place that empowers the community.



**Figure 33: Outdoor Spaces (author)**

In addition to the waterfront parks West and East of the river, there are two public spaces at further removed from the estuary. On the western side is Congressional Cemetery and on the eastern is Fort Dupont Park. Congressional Cemetery is a place for reflection and



solemnity while Fort Dupont Park is a space for recreation and celebration. The relationship these two spaces share with Massachusetts Avenue is peripheral. However, they can act as anchors for a potential development along the Massachusetts Avenue corridor.

### Existing Proposals

The discussion of Reservation 13 would not be complete without taking a look at preceding designs for its renovation. Two visions of the Anacostia waterfront at the site of Reservation 13 are particularly interesting. The first was a watercolor from the NCPCs 1997 “Extending the Legacy” plan (fig. 34). This image creates an idealistic futurism with recreation and even a dome like structure in the middle of the river evoking the ethos of Buckminster Fuller.

**Figure 34: Anacostia Waterfront (NCPC)**

This Romantic idealism for the waterfront is beautiful but out of character with what the city is and what the city should be. By creating a hyper dense and seemingly luxurious urbanism on the banks of the Anacostia the city is denying an opportunity establish a language of continuity between east and west.

**Figure 35: Proposal for Reservation 13 (EEK)**

In 2008 EEK Architects along with the District of Columbia Office of Planning created a master plan for Reservation 13 (fig. 35). This proposal called for the continuation of Massachusetts Avenue to its

resolution in a Monument Circle. This is notable because it reinforced the language of public squares as strings of pearls along Massachusetts Avenue. The public space opens up a visual connection between the two sides of the river and brings Massachusetts Avenue one-step closer to the edge. However, it raises questions of continuity in that the only one other street leaves the circle. The gesture of creating an anchor is important but it could go further. A precedent exists for this on the opposite side of Washington, DC in the form of Memorial Bridge (fig. 36).

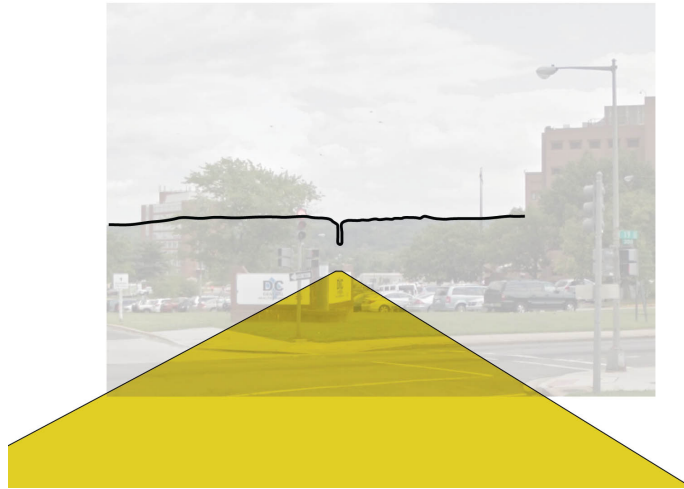
**Figure 36: Memorial Bridge (bing maps)**

Memorial Bridge continues the language of the National Mall across the Potomac River to Arlington Cemetery. It creates both a physical and cultural nod to the significance of place within the city. In a similar way the public space language of Massachusetts Avenue could continue across the Anacostia River to Randle Circle.

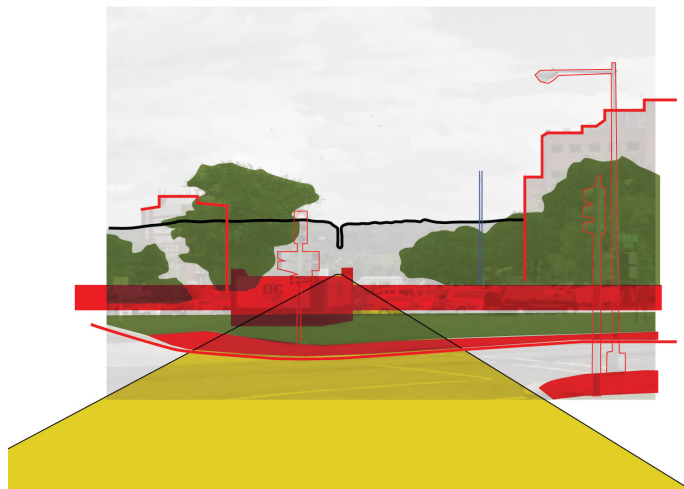
### *Pedestrian Divisions*

Reservation 13 serves as a potential threshold for Massachusetts Avenue to cross the Anacostia River and tie the two sides of the city back together. In the compound's current condition it is clear that a pedestrian culture is discouraged (fig.37). However, the existence of a notch in the trees across the river creates a visual connection to the other side of Massachusetts Avenue (fig. 38). This visual connection can define a better pedestrian experience, devoid of the signage, parking and poor urban edges seen currently (fig. 39).

**Figure 37: Massachusetts and 19th SE (google.com)**

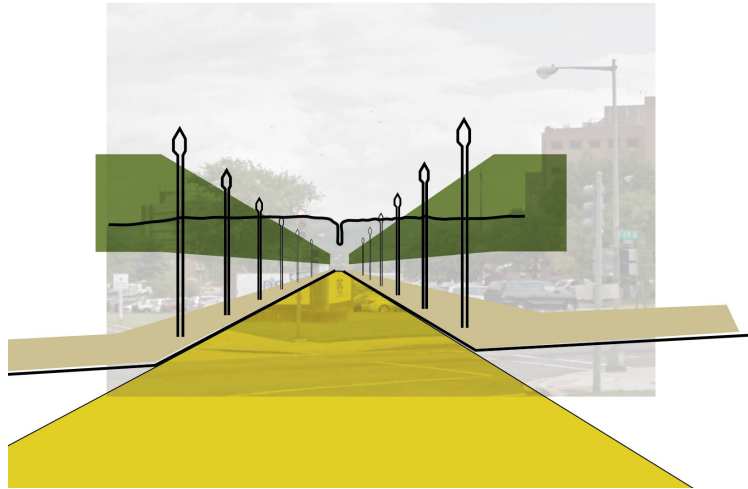


**Figure 38: Continuing the Axis (author)**

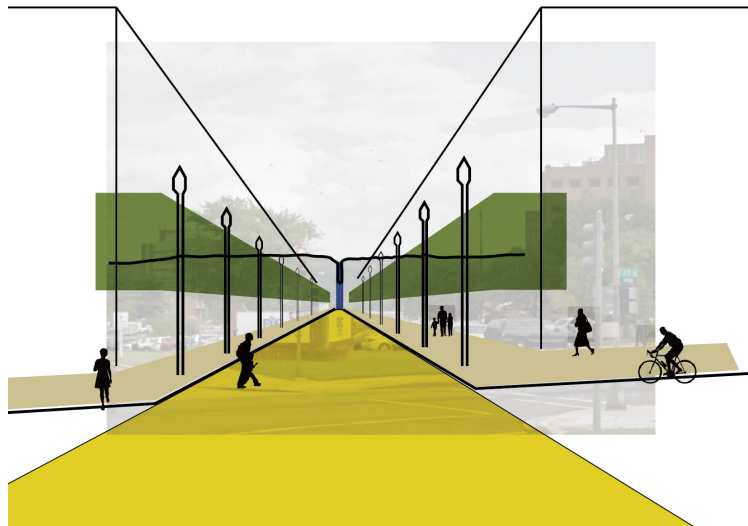


**Figure 39: Removing Barriers (author)**

By reestablishing a comfortable pedestrian scale in the form of street lamps, wide sidewalks and tree cover (fig. 40) will lead to a better experience for walkers and bikers. Eventually, buildings will begin to line the pedestrian realm and bring life to Massachusetts Avenue (fig. 41).



**Figure 40: Scaling the Street (author)**



**Figure 41: Pedestrian Connection (author)**

By reestablishing a pedestrian connection to the river the monumental and public nature of Massachusetts Avenue can fulfill its legacy within the city. By continuing the language of tree-lined streets to the water there is certain inevitability to bridging the Anacostia River. This bridge should reinforce the language of Massachusetts Avenue

within Washington DC. It should serve as a pedestrian and bicyclist connector rather than a vehicular bridge. This will allow the bridge to act as a catalyst for community rather than another high-speed artery between two sides of the river. It will ultimately promote a community of inclusion rather than exclusion and exclusivity.

### 3: Bridge as Catalyst

#### Urban Fabric

In order to understand the catalytic effect that bridges have on an urban environment the following seven examples were diagrammed and analyzed. The Ponte Rialto in Venice traverses the Grand Canal with a beautifully arched urban condition. The Ponte Vecchio in Florence elevated the rich and powerful above the fray of Renaissance Italians. The I-670 Cap in Columbus, Ohio took advantage of a private public partnership to tie two economic cores to each other. In Chicago, the Illinois Toll-way Oasis captures the value of the highway by providing amenities to travelers. The lower west side of New York City has undergone an urban renaissance thanks to the elevated High Line Park. In Bath the Pulteney Bridge frames the experience between two different densities of a city. Finally, the Olympic Sculpture Park in Seattle, Washington shows that infrastructure can take the role of reconnecting the city to a local amenity – the waterfront.



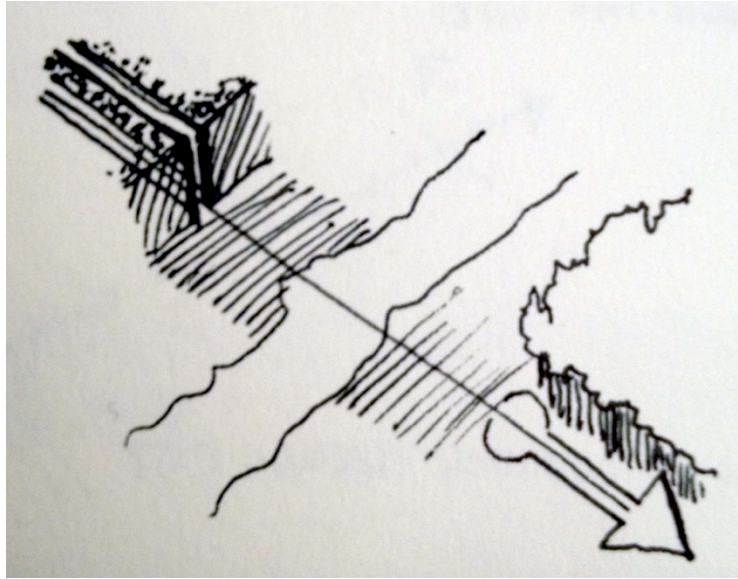


Figure 42: Continuity (author)

### Ponte Rialto

Venice, Italy is known for its relationship with the sea. Throughout its history the juxtaposition of sea and water has drawn tourists and artists alike. As such the island city has an economy based upon tourism. Shops, restaurants and hotels dot the cityscape. These buildings and public spaces of Venice create a constant dialogue between water and land. This relationship is most apparent along the Grand Canal that splits the city in two. The catalytic Rialto Bridge crosses this canal. In the 1580s Antonio da Ponte<sup>10</sup> designed the bridge as both a gateway for boats and a thoroughway for pedestrians. The bridge is located along the thoroughfare created by the Ruga dei Oresi and the Salizzada Pio X. This corridor

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<sup>10</sup> <sup>10</sup> Jean Manco, "Pulteney Bridge," *Architectural History* 38 (1995): 132.

through the city runs northwest – southeast between two public spaces. It creates a central node within the urban fabric of Venice and ties land and water together through architecture.

The pedestrian experience along the Rialto Bridge is both a continuation of the street but also an establishment of bridge as a public square. The necessity to create a clear passage for boats below dictated a need for steps up and over the bridge. These steps create a sense of enclosure for the pedestrian. This creates a unique relationship to the shops that step up along the bridge along with the pedestrians. These shops are short and narrow in relation to the adjacent urban fabric. However, they provide shade and a center of economy for people crossing the threshold of the Grand Canal.

The Campo San Bortolomio to the Campo San Giacomo di Rialto bracket the promenade across the bridge. The figure ground shows how the bridge activates a new public realm within the city (fig. 43). The release that a pedestrian feels while crossing the bridge is fairly unique within the density of Venice. It is one of the few spaces where the density of the city is seen as a surface rather than a volume. This unique urban situation has been harnessed as both tourist destination and retail node

within the city. In this sense openness becomes catalytic. People are drawn together to enjoy a unique space within the city.

The bridge is divided into three zones of movement that climb to the crest of the bridge. The north and south facing promenades allow views out to the Grand Canal. The central corridor is lined with shops juxtaposing commerce and circulation while ascending the bridge. This climb is unique within Venice because it creates topography in an otherwise flat city. The top of the bridge creates a small arcade that ties the three promenades together. In a sense this creates a moment of arrival at the crest of the bridge.



Figure 43: Venice, Figure Ground (author)

**Figure 44: Rialto Bridge Aerial (bing maps)**



**Figure 45: Rialto Bridge Perspective (author)**

### Ponte Vecchio

The Ponte Vecchio in Florence, Italy is another bridge lined with retail. Completed on the 18<sup>th</sup> of July in 1345 the bridge was considered “a

civic monument with the potential to bring beauty and honor to the city.”<sup>11</sup> The bridge was a product of a city working to create a clear and rational urban language. It served not only as a utilitarian point of connection but also a public space within the network of Renaissance Florence. The bridge is laid out along an arterial connection that runs from the Piazza della Signoria north of the river to the Piazza dei Pitti to the south. The Piazza della Signoria on the north bank contains restaurants and state buildings that bring life to the public realm. This public square is aligned the Uffizi and draws tourists and locals alike towards the river and ultimately the Ponte Vecchio. The Piazza Santa Felicità anchors the southern end of the bridge and leads to the Piazza dei Pitti. The Piazza dei Pitti is the public space outside of the Palazzo dei Pitti that in turn leads into the 11-acre Boboli Gardens.

The public spaces along the arterial street give a cadence to the procession through Florence. This rhythm of movement is a counterpoint to the waterways and bridges of Venice. While Venice’s Rialto Bridge has a topographic shift to the street Florence’s Ponte Vecchio is relatively flat. In consequence the sense of enclosure provided by the lining

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<sup>11</sup> Theresa Flanigan, “*The Ponte Vecchio and the Art of Urban Planning in Late Medieval Florence*,” *Gesta* 47, no. 1 (2008): 1.

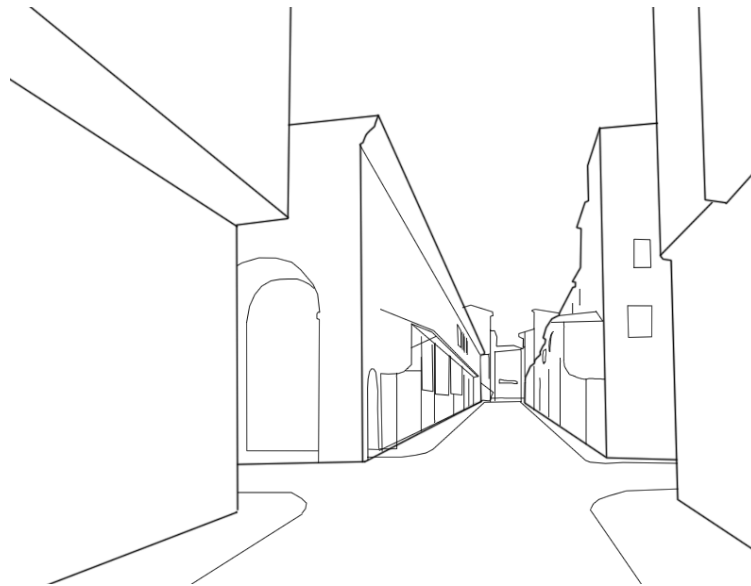
buildings is much more street like. The shops that frame the street condition also open into a public space at the center of the bridge. This bridge piazza provides views out to the river below.

A southward facing perspective through and across the Ponte Vecchio puts into contrast the two sides of the bridge (fig 48). The eastern edge of the bridge is capped with an enclosed public walkway that creates a more uniform profile. This is in contrast to the western edge of the bridge that is broken by the piazza. The buildings to this side vary in height and depth as many push westwards to occupy the air space above the river.



Figure 46: Florence Figure Ground (author)

**Figure 47: Ponte Vecchio Aerial (bing maps)**



**Figure 48: Ponte Vecchio Perspective (author)**

### *Pulteney Bridge*

The Pulteney Bridge in Bath, UK is an English addition to the taxonomy of catalytic bridges. “Robert Adam’s creation in Bath has more than novelty value. His restrained composition of curves and rectangles

was one of the visual delights of English Neo-classicism.”<sup>12</sup> The bridge was constructed during the 1770s and connected the eastern town of Bathwick to the western center city of Bath. As such, the sun lights the bridge in the morning and evening and during the middle of the day the bridge is cast in shadow. The bridge encloses the street and divides the pedestrian from the water below. By continuing the urban edge the Pulteney Bridge is speaking the language of linear organization similar to the Renaissance Italians. It creates a rationalized and enclosed corridor into the city and provides spaces for commerce and activity (fig. 51).

The Pulteney Bridge provides the eastern bank of the River Avon access to the historic downtown and continues the urban form across the river. The west bank of the river is much denser than the linear neighborhood form across the river. While the eastern buildings edge the streets and taper off after a block the buildings to the west form an urban district. This sector of the city is varied in use: commercial, retail and residential are organized in tight blocks. The east side of the river has a square immediately before crossing the bridge. This square orients passers by to the adjacent public space in the form of playing fields.

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<sup>12</sup> Jean Manco, “Pulteney Bridge,” *Architectural History* 38 (1995): 129.



Upon closer examination the Pulteney Bridge is a unique typology within the case thus far. Instead of tying into the fabric at both banks of the river the bridge sets back from one end. This allows views to permeate from west to east but creates a sense of enclosure from east to west. The alignment of the bridge buildings to the adjoining properties on the east bank also shows a diminutive scale (fig. 53). The bridge therefore creates unique senses of place based upon approach. An additional point to be made about the bridge is the vertical circulation provided from the eastern waterfront park up to street level. By building in a flight of stairs the architect created a passageway between urbanity and nature. This technique could be implemented in a bridge design for Massachusetts Avenue.



Figure 49: Bath Figure Ground (author)

**Figure 50: Pulteney Bridge Aerial (bing maps)**



**Figure 51: Pulteney Bridge Perspective (author)**

### I-670 Cap

The British and Italians were not the only culture to use retail bridges to create continuity between urban streets. I-670 in Columbus, Ohio cuts east west through the city. It is a sunken highway north of the

central business district and south of The Ohio State University. For years the highway divided these two economic and cultural anchors within a burgeoning city. This division was reconciled through a public-private partnership between the state department of transportation and a developer. By bridging the gap between the city and the university the I-670 cap became a catalyst for economic and social activity.

The way in which the cap deals with structure is also of note. The infrastructure infill is made up of three distinct bridges. Two bridges support the retail buildings while the center bridge allows high street to flow between. The three bridges create flexibility and structural redundancy. The vehicular bridge deals with different issues of expansion and contraction because it is exposed to the elements whereas the retail bridges are insulated. The retail buildings frame the views along high street and create a pedestrian friendly experience supplemented by the inviting restaurants to either side.

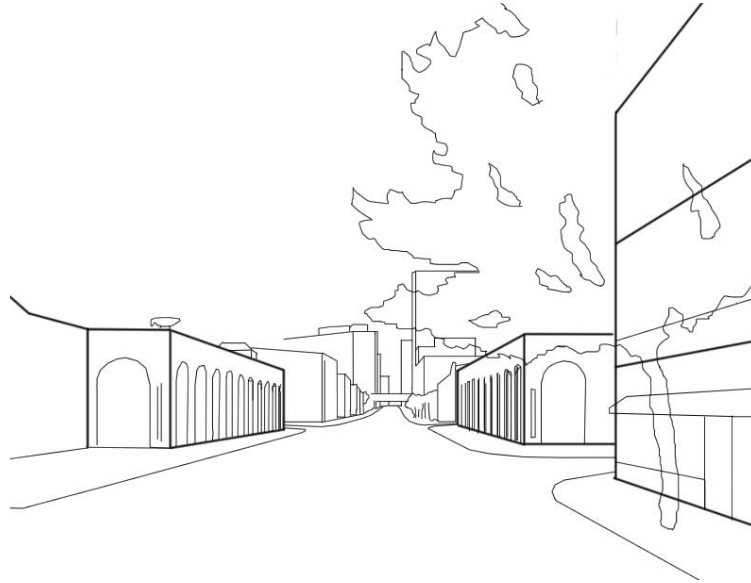
By covering the highway the city of Columbus received much more than it bargained for. By creating a pedestrian friendly continuity the culture of the High Street corridor have been improved dramatically. The bridge has acted as a catalyst for the community as businesses both

north and south of the cap are thriving. The Short North has become a destination for dates, celebrations, or business meetings.



**Figure 52: Columbus Figure Ground (author)**

**Figure 53: I-670 Cap Aerial (bing maps)**



**Figure 54: I-670 Cap Perspective (author)**

### *Illinois Toll-Way Oasis*

This Illinois Toll-Way Oasis in Chicago is close to O'Hare Airport. It bridges above the highway that runs north south below. The bridge is anchored on either side by retail and service bars. These bars also serve as a point of entry from the adjacent parking lots. This building alone shows the economic power that a pedestrian bridge can have. In essence a bridge is strictly utilitarian. However, the choice of the toll-way investors to bridge over the highway shows a desire to capture the potential of pedestrian culture when juxtaposed with that of the automobile. By investing in the bridge the toll-way is making a statement that economy and pedestrian experiences are intertwined.

The economy of this bridge is something that creates a stark contrast to the surrounding context. The bridge stands alone in its orientation and typology. As one would expect the bridge is relatively isolated within its fabric. To the east is residential density while the west is primarily industrial. The highway bisects these two zones and is reinforced by a fence to keep the highway separated from the neighboring uses. This means that the Oasis exists purely as a service for the highway. It provides users a space for respite while on their journeys in exchange for captured capital.

The toll way rest areas in Illinois are a learnable example of the combination of bridge and retail. They are waypoints along an insular corridor and create points for interaction in an area dominated by private vehicles. The highway runs underneath a platform that houses the food court of the rest area. The food court is held up by a single span structure allowing cars to pass unhindered beneath the bridge. Large windows provide views that look out over the highway. These portals allow visitors to the rest area to appreciate the flow of automobile traffic.

The anchors of the bridge house services such as bathrooms, kitchens, and dumpsters. They also serve as gateways to the food court and mark the threshold between vehicular and pedestrian activity. The

use of natural light is an important feature. Even though the bridge is seventy feet wide it is bathed in light because of its two large windows and clerestory. The rest stop can also be understood as a means of producing revenue along a transportation corridor. The nature of the rest area as a place to purchase food or sustenance while on a trip can be translated to pedestrian or mass transit systems.

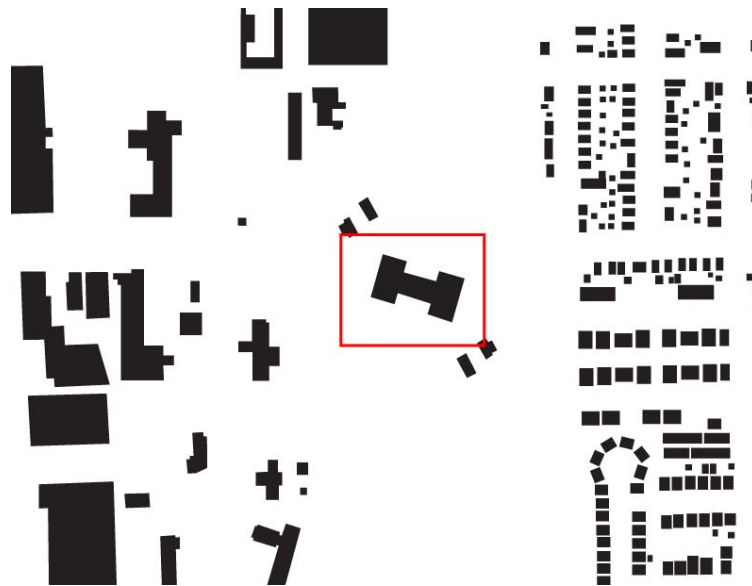
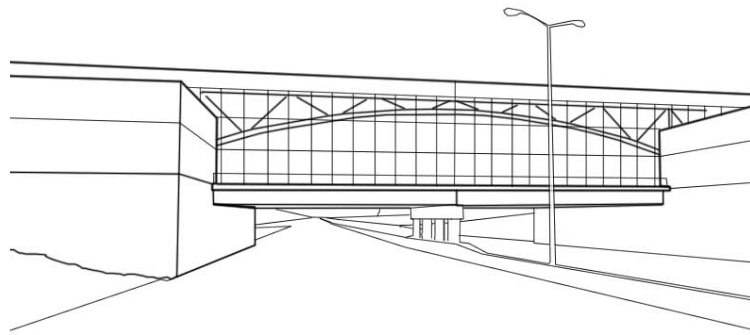


Figure 55: Chicago Figure Ground (author)

**Figure 56: Illinois Toll-Way Oasis Aerial (bing maps)**



**Figure 57: Illinois Toll-Way Oasis Perspective (author)**

### *The High Line*

No discussion about the transformational possibilities of inhabitable bridges would be complete without looking at the High Line Park in New York City. It is a mile and a half long “public-park built on



an abandoned, elevated railroad stretching twenty-two city blocks from the Meatpacking District to the Hudson Rail Yards in Manhattan.”<sup>13</sup> This urban park was designed by James Corner Field Operations and Diller Scofidio +Renfro. Although the High Line is not mounted with retail the park still has a part in this discussion because of its catalytic effect on the surrounding neighborhood. Before the park was established the rail line was derelict above the busy streets of Manhattan. It has since been converted to an urban destination that spurred the development of galleries, retail, and commercial districts along its length. The park crosses 10<sup>th</sup> Avenue in one of the most unique urban conditions. It creates an urban amphitheater that looks out over the urban artery. It thereby reorients the pedestrian experience from a moment of dynamism to one of stasis. Watching the cars flow by underneath becomes a spectacle rather than a barrier. This lesson can be implemented in the intersection of Massachusetts Avenue and the barriers created by the CSX line and the Anacostia Freeway.

By providing a new perspective within New York City the High Line has drawn tremendous numbers of people to the Lower West Side. In this way the High Line Park acts as a catalyst within Manhattan.

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<sup>13</sup> Keith Moskow and Robert Linn, “*Small Scale: Creative Solutions for Better City Living*,” (New York: Princeton Architectural Press: 1995): 90.

People are drawn to the unique plant life, the views of rooftops, and the art that has sprung up in alleys and windows alike. The variety of plants that occupy the upper surface and mark the path educates the user about different ecologies resulting from varying exposure to light and shadow. This creates a rhythm along the pedestrian promenade a tension and compression composed by the interpretation of local ecologies.

The way that the bridge concurrently bridges traffic, passes beneath buildings, and harnesses the power of history and nature creates a new typology for the pedestrian experience in a city. The Park frames views of iconic American skyscrapers while paying homage to the power of nature. The exposure of the railway ties and self-referential paving reinforce the narrative of the elevated park as an outdoor museum for urbanity. These principles can be implemented in order to tell the story of Massachusetts Avenue as one crosses the Anacostia River.

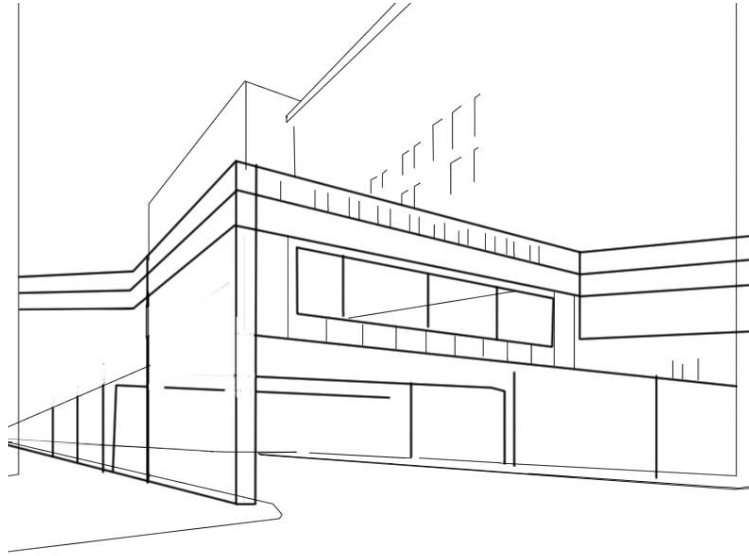
The crossing above 10<sup>th</sup> Avenue is a unique moment along a space that was previously unknown to locals and tourists alike. This condition of novelty within a city as diverse as New York is something important to note. By creating a new perspective the High Line Park has made place where there previously was none. The absence of man let nature take over and created the point of reference for urbanity to occupy the

derivative form. The absence of cars lets people assert control over their path, a condition that is unique in the contemporary American city.



**Figure 58: NYC Figure Ground (author)**

**Figure 59: High Line Park Aerial (bing maps)**



**Figure 60: High Line Park Perspective (author)**

### *Olympic Sculpture Park*

Seattle is a waterfront that experiences similar issues to other metropolitan centers across the United States. The waterfront was lined with rail and road and cut the commercial district off from the amenity. As such the Olympic Sculpture Park bridged each of these divisions and brought the city to the water.

The sculpture park is located in between the relatively dense commercial and residential core of downtown Seattle. To the south is Elliot Bay the waterfront that Seattle is the estuary that leads to the Pacific Ocean. This makes the Sculpture Park a gateway to the waterfront as well as a means to rectify the urban edge.

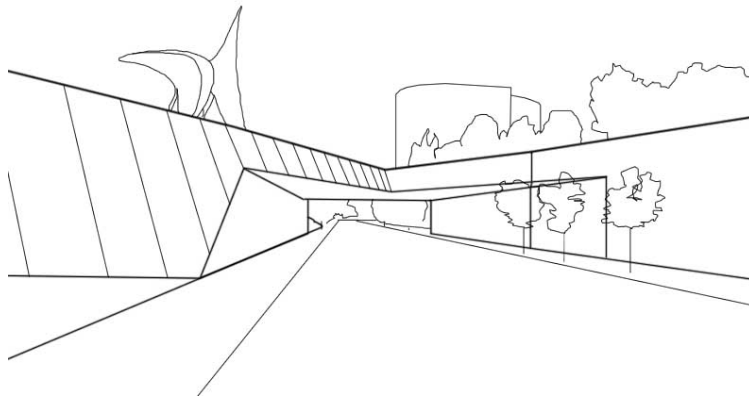
The sculpture park provides visitors views that are different from the neighboring streets. By elevating the pedestrian above the rail and street a manicured landscape frames perspectives of the bay and the sculpture on site. The intervening trees and gardens promote a sense of nature that contrasts the built up urbanity on either side of the park.

The perspective image above reveals the dynamic nature of the bridge as it crosses above the street below. The bridge pinches back drawing light into the chasm between the two embankments.



**Figure 61: Seattle Figure Ground (author)**

**Figure 62: Olympic Sculpture Park Aerial (bing maps)**



**Figure 63: Olympic Sculpture Park Perspective (author)**

### Conclusions

These public spaces represent a range of examples where bridges serve to strengthen and instigate myriad urban experiences and enhance the human connection to the city. The implementation of the techniques

employed in these earlier projects could strengthen the connection between Lincoln Park and Fort Dupont Park. Building bridges can prove to be a catalytic force. The Renaissance bridges of the United Kingdom and Italy informed the construction of the catalytic I-670 Cap in Columbus Ohio. The repurposing of derelict sites is exemplified by the surgical infrastructure of the High Line and the Olympic Sculpture Parks. These parks show that bridges can draw people together for many different purposes such as travel, commerce, and residency. The most successful catalytic bridges provide a unique perspective that contrasts the typical condition of the city at hand.

## 4: Historical Background

The history of Reservation 13 within Washington, DC transcends the physical geography of the site. The place is layered with a cultural tapestry of neglect and abuse. This history is one that cannot and should not be forgotten but rather learned from. In this way Reservation 13 can become a precedent for social and political reconciliation within our society. In addition to reconciling the negative history, a bridge across the Anacostia River has the potential to draw upon positive and empowering stories in order to draw people closer together rather than further apart. This chapter delves into the history of the marginalized population of Washington, DC and hopes to elevate the bridge as a monument and memorial to their lives.

### *Native Americans*

The Anacostia River at the beginning of European colonization was home to a vibrant society of Nacotchtank Native Americans. “When John Smith sailed up [the Anacostia River] to the Nacotchtank Village in 1608, he encountered perhaps 300 Nacotchtank people [...] He reported lush forests, a crystal clear river, [Native Americans] paddling canoes laden with the flesh of deer, bear buffalo and turkey, and fish so abundant



he could scoop them up with a frying pan.”<sup>14</sup> Tobacco plantations, power plants and other shoreline development leading to erosion, polluted the Anacostia River. These activities lead to a stagnant river that is one-tenth its original depth of 32 feet.

### Marine Hospital

The process of pollution worked quickly and the river was already damaged by the time Pierre Charles L’Enfant’s initial plan of Washington, DC marked the terminus of Massachusetts Avenue with a public square on the water (fig. 2). This public square could have served as a public wharf for Washington, DC. However, Andrew Ellicott shifted Massachusetts Avenue to the North altering the plan. In this revision, the terminus of Massachusetts Avenue was marked with a Marine Hospital with grounds that opened exclusively to the East. This is a fundamental difference between the two schemes. While L’Enfant envisioned the resolution of Massachusetts Avenue as a place for the people with expansive views, Ellicott proposed a government installation.

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<sup>14</sup> Brett Williams, "A River Runs Through Us," *American Anthropologist* 103, no. 2 (June 2001): 411.

### General Hospital

While Reservation 13 was used as a federal installation the stagnation of the river led to an increase in cholera and malaria on its grounds. During the 1860s soldiers and prisoners alike died of these diseases. This was a result of the outflow of raw sewage and pollution into the Anacostia River. “Employees at the Navy Yard, as well as inmates at the D.C. Jail and the Government Hospital for the Insane suffered and died from Malaria at alarming rates.”<sup>15</sup> This history of disease as well as population growth between 1930 and 1950 made it necessary to build more facilities providing for the health of Washington’s population. Reservation 13’s DC General Hospital served as one of these new facilities.

### Homeless Shelter

After General Hospital was closed the buildings began an auxiliary function as a homeless shelter for Washington, DC. In this capacity the building continued to serve the city in a limited but focused capacity. This service has been marred with abuse, neglect, and tragedy. The most notable story during the tenure of the site as a homeless shelter was the abduction of 8-year-old Relisha Rudd. This was the result of a

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<sup>15</sup> Williams, “A River Runs Through Us.”

breakdown of support systems meant to assist the most vulnerable of District residents. The story of Relisha Rudd has been chronicled by the Washington Post in a series of articles relating to her disappearance. Relisha Rudd was a homeless girl who attended DC Public Schools. While she was in the care of a homeless shelter janitor she was abducted and a two-year search hasn't turned up any information. Her disappearance has marked one of the most troubling stories of Reservation 13's history.

### Prison

The DC penitentiary at Reservation 13 is also in a state of disrepair. The prison suffers from moldy walls, "roof leaks, "vermin" roam the grounds, flies buzz in the kitchen, and the plumbing is in varying states of disrepair"<sup>16</sup> The physical state of the prison is paired with an undertrained staff and poor design in terms of suicide prevention. Thus the prison should be on the list of district buildings and services to be replaced. "Washington's inmate population is disproportionately black and male; while less than half of the District's population is black,

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<sup>16</sup> Abigail Hauslohner, "Prisoner's Rights Advocates: DC needs a new jail," *The Washington Post*, June 11, 2015, accessed on January 12, 2016, [https://www.washingtonpost.com/local/dc-politics/why-prisoners-rights-advocates-think-dc-needs-a-new-jail/2015/06/11/e2ca50d2-1051-11e5-adece82f8395c032\\_story.html](https://www.washingtonpost.com/local/dc-politics/why-prisoners-rights-advocates-think-dc-needs-a-new-jail/2015/06/11/e2ca50d2-1051-11e5-adece82f8395c032_story.html)

91 percent of its inmates are.”<sup>17</sup> “The D.C. Council recently approved a 2016 budget that includes \$150 million for the Department of Corrections, \$1 million of which will go toward general renovations. The budget also included funds to explore the need for a new facility.”<sup>18</sup>

### Community Figures

The troubles of Reservation 13 have been made stark in this examination. However, there is much to be celebrated in the cultural legacy of Washington, DC. Figures such as Charles Houston, Robert Boone, Nap Turner, Bill Mabry, Mary Church Terrell, Courtland Cox, Theresa Howe Jones, and Darren Harper have all served the community and created a culture of empowerment (fig. 43). Their legacy of community activism is celebrated in the design of a bridge as a catalyst for community empowerment and communication across the Anacostia River. By highlighting their role in Washington, DC history the bridge will act as both a physical and cultural connection across the river.

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<sup>17</sup> Hauslohner, “Prisoner’s Rights”

<sup>18</sup> Hauslohner, “Prisoner’s Rights”



**Figure 64: People and Activity (author + google images)**

Each of the aforementioned figures has played a major role in Washington, DC's history. By examining their role in the city and applying lessons from their lives to the bridge it is hoped that the bridge could create an atmosphere for community, education, and engagement across the Anacostia River.

Charles Houston was an NAACP lawyer during the early 20<sup>th</sup> century. His role in dismantling Jim Crow laws and mentoring future civil rights lawyers make him one of the most prolific individuals from Washington, DC. He famously helped mentor future Supreme Court Justice Thurgood Marshall who argued in *Brown v. Board of*

Education.<sup>19</sup> By honoring Charles Houston along the bridge his legacy of tearing down barriers will be highlighted.

Robert Boone founded the Anacostia Watershed Society. Darryl Fears Washington Post article “A river’s champion: Anacostia activist wouldn’t take no for an answer,” from September 29, 2011, details the story of this prolific man. It is through his hard work that the Anacostia Watershed Society has become one of the leading advocates for the Anacostia River and its restoration.

Nap Turner was a famous radio personality from Washington DC. He once said that, “The Anacostia Freeway went up the same year as the Berlin Wall. It meant the exact same thing.”<sup>20</sup> This quote led to an investigation in tearing down the wall within the design proposal. Bill Mabry wanted to swim in a pool that had been segregated overnight but was turned away. His refusal to follow the status quo was empowering in itself. These two individuals empowered Washington, DC by giving voice to the problems created by division.

The Washington Post in “The story of the Seafarers Yacht Club, one of the nation’s oldest black yacht clubs” by DeNeen Brown profiled

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<sup>19</sup> "Charles Hamilton Houston," PBS Jim Crow Stories, accessed March 17, 2016 [http://www.pbs.org/wnet/jimcrow/stories\\_people\\_houst.html](http://www.pbs.org/wnet/jimcrow/stories_people_houst.html)

<sup>20</sup> Williams, “A River Runs Through Us.”

Charles Martin on September 29, 2011. Charles a.k.a. Bob Martin helped found the Seafarer's Yacht Club, one of DCs oldest boating communities. The group serves the African American communities of Washington, DC and frequently runs watershed cleanup days.

Darren Harper is a skate boarder from Southeast DC. The title of Dave Sheinin's Washington Post article "After leaving the drug game behind, Darren Harper found new life in Skateboarding" of September 4, 2011 says it all. He had a history of breaking the law but broke out of that cycle by finding another passion. Through skateboarding Darren Harper was able to gain sponsorship and is a redemption story. He has taken his newfound wealth and put it back into his community in the form of skateboards and life lessons for local youth.

## 5: Theoretical Background

As Washington, DC is a city with “good bones”<sup>21</sup> the theoretical principles that apply are ones of intervention and appropriation of preceding designs. This brings to mind the works of Colin Rowe, Edmund Bacon, and Bernard Tschumi. Each of these architectural theorists proposes a way in which to reconcile the old with the new. They also establish precedents and guidelines that have lead cities to create great public space and intelligent densification. In addition to these icons of urban architectural theory, the writings of Juhani Pallasmaa, Steven Holl, Martin Heidegger, and Lisa Herschong make strong arguments about the dichotomy between what exists and what could be. The juxtaposition of divergent types of space and being against the backbone of existing patterns could lead to a language of resolution for the Massachusetts Avenue corridor at the Anacostia River.

### *Design of Cities*

The architectural historian and theoretician Edmond Bacon proposes ideas that are extremely relevant to the reconciliation of Massachusetts Avenue. His principle that “it is the second man who

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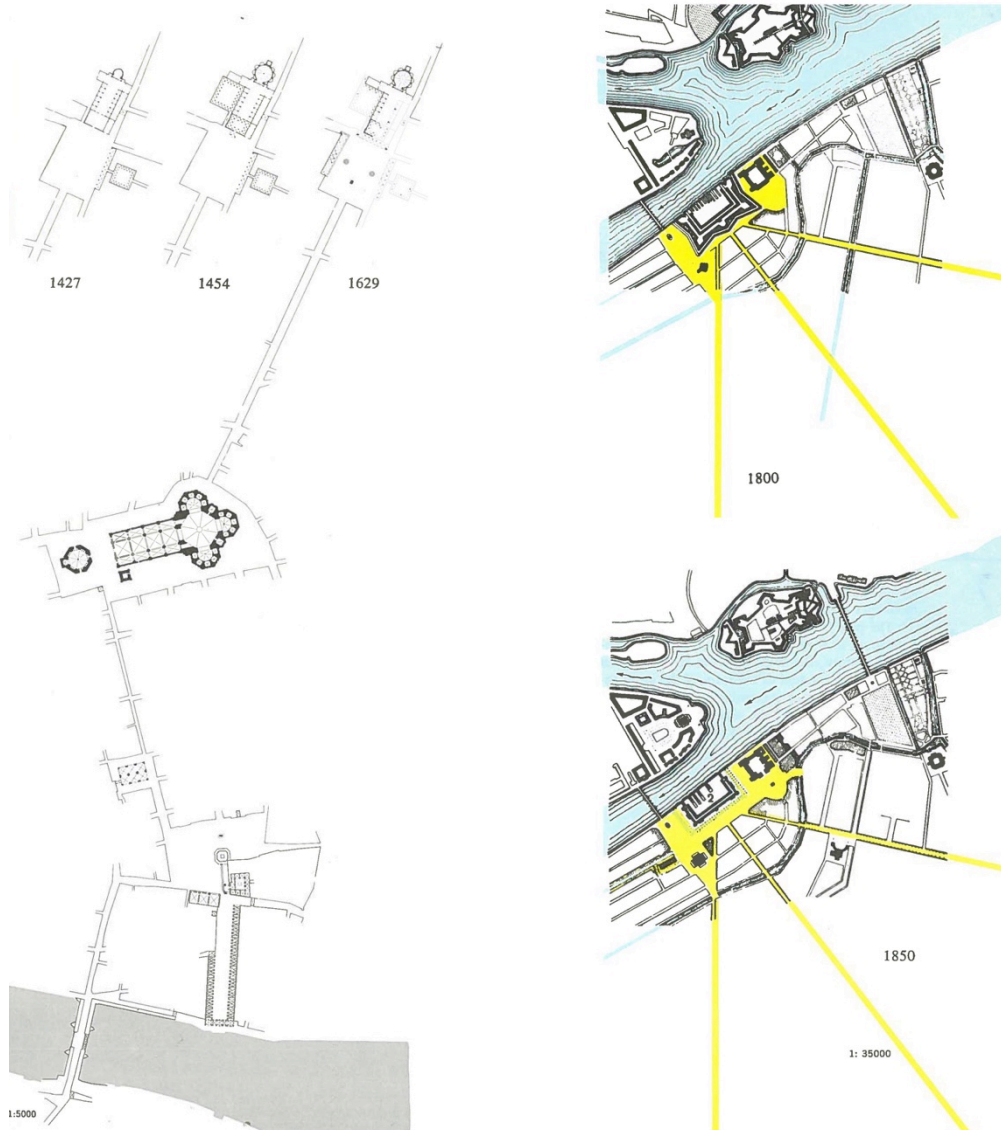
<sup>21</sup> Miller. *Washington in Maps*, 162



determines whether the creation of the first man will be carried forward or destroyed”<sup>22</sup> posits that cities develop based upon the collective work and adaptation of designers throughout time. In Florence the Piazza della Santissima Annunziata (fig. 34) exhibited a remarkable transformation during the Renaissance. Each successive layer of addition reinforced the previous designers intentions until the work reached completion. Similarly the outward expansion of St. Petersburg allowed the land around its fort to become more than just a point of refuge but also a public space within the city (fig. 35).

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<sup>22</sup> Edmund Bacon. *Design of Cities*, (New York: Penguin, 1976),109.



**Figure 65: Axial Relationships of Florence, left (Bacon)**  
**Figure 66: Axial Relationships of St. Petersburg, right (Bacon)**

### Collage City

While Edmund Bacon posits on the development of cities based upon the principle of the second man, Colin Rowe introduces the concept of city as a conglomeration of collisions, temporal and otherwise. This

canonical text weaves architectural, urban, and artistic theory into a dialogue that frames the modern “city as a scaffold for exhibition demonstration.”<sup>23</sup> With this quote Rowe does not intend to direct the paradigm of architecture towards creating spaces that give priority to demonstration. Rather, he is setting the tone for a dichotomy between activity and stasis. While architecture has the power to provide hierarchy within a city it should not do so indiscriminately. History, culture, and even the mundane should be understood as pieces of the puzzle of urbanity.

*“For, whatever the abstract height of the rational project, the totemic stuff has simply refused to be expunged. Merely it has discovered for itself a new disguise; and in this way, concealing itself in the sophistications of freshly invented camouflage, it has invariably been enabled to operate quite as effectively as ever.”*<sup>24</sup>

Even in the most rational of planned cities the totemic will exist. However, the rational framework of a city has the potential to camouflage the symbolic while still providing hierarchy for public spaces.

*“It is in terms such as these, in terms of pleasures remembered and desired, of a dialectic between past and future, of an impacting of iconographic content, of a temporal as well as a spatial collision,*

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<sup>23</sup> Colin Rowe and Fred Koetter, *Collage City* (Cambridge: MIT, 1978), 136.

<sup>24</sup> Rowe and Koetter, *Collage City*, 120.

*that resuming an earlier argument, one might proceed to specify an ideal city of the mind.*”<sup>25</sup>

Issues of memory and the dichotomy between the past and the future are raised in this quote. The dichotomy between past and future has the potential to present a solution for an ideal city. In this sense Rowe begins to posit upon the duality between the existing and potential conditions of a city. It brings into question the current framework as the moment of stasis or the moment of decision. In this way Rowe’s argument begins to converge with the theory of Edmund Bacon. They are both arguing for the development of cities based upon the language of the past while bringing into play visions of the future. Where the arguments start to diverge again is in the following quote referring to the work of Le Corbusier.

*“His buildings, though not his city plans, are loaded with the results of a process which might be considered more or less equivalent to that of collage. Objects and episodes are obtrusively imported and, while they retain the overtones of their source and origin they gain also a wholly new impact from their changed context.”*<sup>26</sup>

This is the quintessential message of Rowe’s didactic on urbanism in our contemporary era. The juxtaposition of objects and episodes within

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<sup>25</sup> Rowe and Koetter, *Collage City*, 138

<sup>26</sup> Rowe and Koetter, *Collage City*, 140

a city may be of varying styles and sources. However, with the artful arrangement of space and order these objects and episode frame a narrative of newness. The integration of different typologies and styles into an urban gestalt is what makes cities interesting. It also leads into the discussion of urbanity posed by Bernard Tschumi.

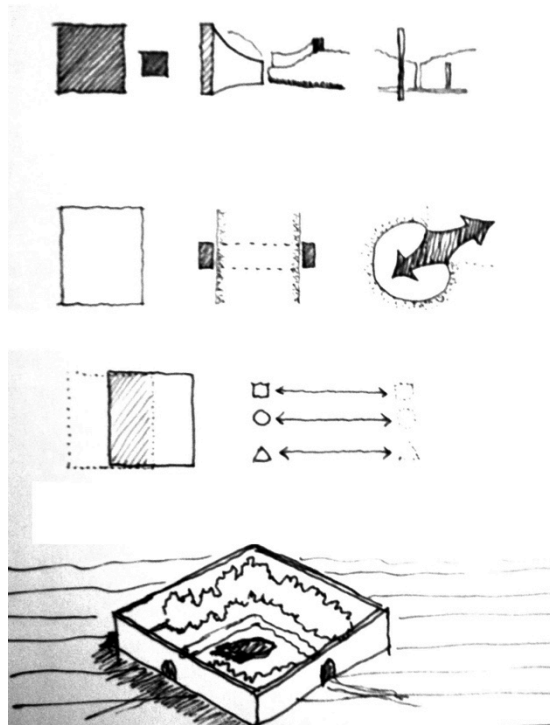
### *Event Cities*

Bernard Tschumi exercises his theoretical approaches to architecture in the form of intricate design solutions. This project in Laussane, Switzerland is of particular interest because it pairs two typologies, the bridge and the city, into one programmatic element the Bridge-City. This theoretical project was designed in 1988 and employs Tschumi's concept of crossprogramming. This term is a typological displacement in which a building meant for a specific use is appropriated for a "program not intended for it, that is, using a church building for bowling. Similar to typological displacement: a town hall inside the spatial configuration of a prison or a museum inside a car park structure. Reference: crossdressing."<sup>27</sup> This appropriation of differing building programs within another typology creates architecture of hybridization.

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<sup>27</sup> Bernard Tschumi, *Event-Cities* (Cambridge: MIT, 1994), 155.

In this way Bernard Tschumi is building on the argument made by Colin Rowe. He is providing an urbanism of ‘both and’ rather than ‘either or.’



**Figure 67: Depth, Space, Being, and Contrast (author)**

*“We conclude from all this that Being indicates itself to this saying as the proper self-collected per durance of the constant, undisturbed by restlessness and change. [...] An oft-cited saying is supposed to derive from Heraclitus; panta rhei, all is in flux. Hence there is no being. All “is” becoming.”<sup>28</sup>*

The fluidity between “being” and “becoming” discussed by Martin Heidegger represents the paradoxical nature of the built form. What exists today originated from the dreams of yesterday and can fuel the visions of tomorrow. In this way the conception of architecture is always a work in progress. From the drawing of ideas to the finished project all objects are in a flux between “being” and “becoming.” While this is hard to take in it relates very clearly with the language of Edmund Bacon and Colin Rowe. The idea that architecture and urbanism is constantly in flux gets back to the principle of the second man. Since the initial plans of L’Enfant and Ellicott Washington, DC has been evolving towards those visions. There is still potential for growth beyond the initial plans into a continued state of “becoming.”

*“We could think of the sense of touch as the unconscious of vision. Our eyes stroke distant surfaces, contours and edges, and the unconscious tactile sensation determines the agreeableness or unpleasantness of the experience. The distant and the near are experienced with the same intensity and they merge into one coherent experience.”<sup>29</sup>*

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<sup>28</sup> Martin Heidegger. *Introduction to Metaphysics* (New York: Princeton, 1991), 102.

<sup>29</sup> Juhanni Pallasmaa. *The Eyes of the Skin* (Chichester: Wiley-Academy, 2005), 46.

This statement on the sensory capacity of the eye to draw likeness between objects both near and far is important in the discussion of creating continuity. The agreeableness of something that is near could lead to a desire to follow a path of similar sensory conditions. This path could be a physical connection or a material likeness that creates an understanding of unity and harmony. It could also be used in order to further heighten a sense of discontinuity. In the case of Reservation 13 the current buildings stand in contrast to the scale and quality of the Massachusetts Avenue corridor. This dichotomy makes the experience of the site something notable within the city. The contrast between the enclosure of street and release of space is something that evokes sensory responses beyond the visual.

*“Perhaps the desire for contrast is a reason why the gardens of Islam had to be contained by high walls. The garden with its flowers, shade trees, and fountains provided a cool refuge from the desert heat.”<sup>30</sup>*

“The desire for contrast” serves as a reminder that the unique is desirable within the typical. While the desert has its inherent beauty the relief that the garden provides is one of contrast. The comparison between the garden and the desert is relevant within the discussion of

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<sup>30</sup> Lisa Herschong, *Thermal Delight in Architecture* (Cambridge: MIT, 1979), 23.



urbanism. Cities are made up of streets that serve to get people around within their bounds. In general these streets have a very monotonous background character. The repetition of street after street begs for a point of release. Within Washington, DC these moments of tension come in the form of public squares like the ones that mark the progression along Massachusetts Avenue. The contrast between the city street and the public square is one that must draw upon the characteristics of site.

*“Architecture is bound to situation. Unlike music, painting, sculpture, film, and literature, a construction (non-mobile) is intertwined with the experience of a place. The site of a building is more than a mere ingredient in its conception. It is a physical and metaphysical foundation.”<sup>31</sup>*

The site of a building provides the anchor for not just its physical existence but also its symbolic connection with place. Without site there can be no principle of the second man, no collision of urbanism, no duality between touch and sight. A site is never devoid of meaning but it is still “becoming” what it ought to be. It is up to the designer to interpret history, precedent, context and culture in order to find the “metaphysical foundation” of the built form.

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<sup>31</sup> Steven Holl. *Anchoring: Selected Works* (New York: Princeton, 1991), 9.

## 6: Public Square Precedents

While Washington, DC is made up of a plethora of urban squares it is important to consider precedents. Public squares around the world reconcile the edge conditions of cities, provide orientation and breathability at difficult intersections and most importantly act as points of gathering.

### Square as Orientation Device



Figure 68: Piazza della Santissima Annunziata (author)

The Piazza della Santissima Annunziata in Florence is an example of a square that provides urban orientation (fig. 40). The piazza orients itself towards the south and frames a street that leads towards the Duomo.

The spatial arrangement of the piazza sets the tone for a procession through the hierarchy of Florence.

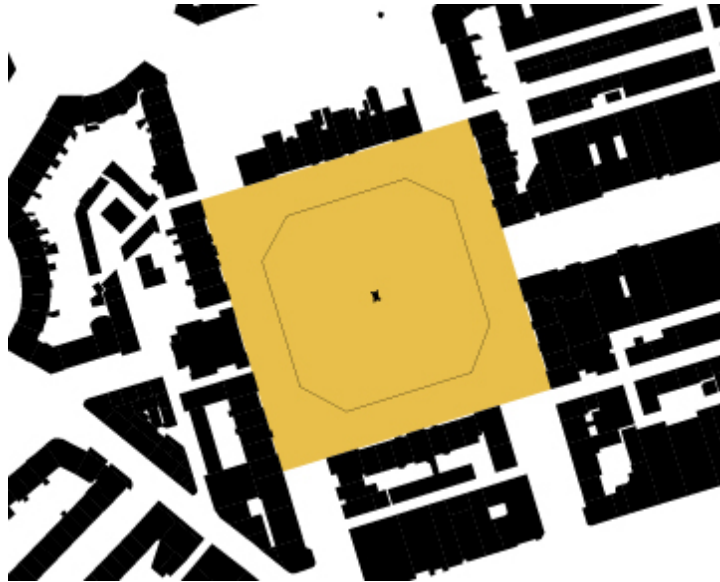


Figure 69: Charlotte Square (author)

Charlotte Square in Edinburgh is one of two large public squares along a dense urban street. This square provides a terminus to the urban gesture and also a sense of release within the urban fabric.

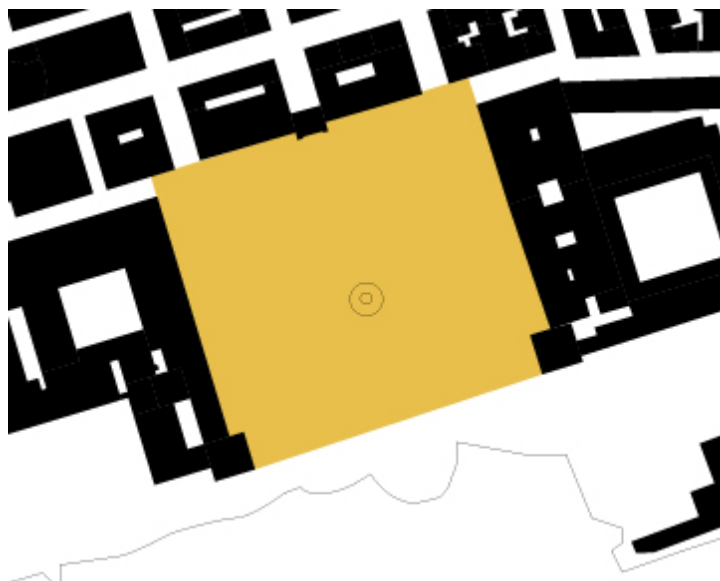


Figure 70: Praca do Comercio (author)

The Praca do Comercio in Lisbon, Portugal creates a threshold between urbanism and waterfront. The scale of this space creates a hierarchical progression from the harbor into the city. This progression is framed by a gateway on the axial street that leads further into town.

*Square as Residual Space*



Figure 71: Piazza della Cisterna (author)

The triple bow tie of San Gimignano is a quintessential medieval square (fig. 71). It is a residual space within the city providing relief to the urban fabric. It also creates a linear progression through an otherwise non-geometric city. This linearity crosses the primary north south artery and reconnects two streets that flow east to west. These spaces were clearly shaped by patterns of activity and flow through the city. They should be understood as a paradigm for interactivity of public spaces

along a linear network. In this case the city of San Gimignano provides an architectural precedent for the axial condition of public space along Massachusetts Avenue.

Squares as Formal Space

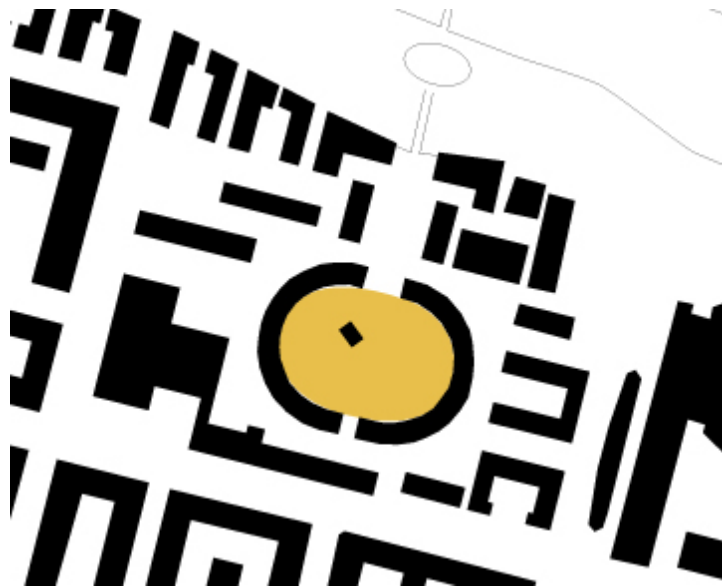


Figure 72: Grubbensparken (author)

The duo of semi-circles of the Grubbensparken in Stockholm frames a secondary axial connection between water and main thoroughfare (fig. 72).



**Figure 73: Campidoglio (author)**

The Campidoglio captures the imagination as it lifts the pedestrian upwards and continues a minor axis within Rome (fig. 73).



**Figure 74: Piazza San Marco (author)**

The Piazza San Marco in creates a bent relationship with the waters edge of Venice. It creates a series of public spaces that frame different user experiences as one moves further in land (fig. 74).



**Figure 75: Piazza San Pietro (author)**

The Piazza San Marco creates a relationship between a prominent building and the surrounding city and frames the terminus of an avenue (fig. 75). The axis that the piazza sets into motion serves as a potential precedent for the Memorial Circle in EEKs plans for Reservation 13.

## 7: Programmatic Strategies

The previous chapters of research and analysis have revealed the potentials of public space to serve as a catalyst within a city. They have also brought to light precedents that could be employed to provide such a space for Washington, DC. From bridges to pedestrian squares patterns of density and proximity to transportation remain consistent. Through the discussion of history one can understand the intentions of L'Enfant and Ellicott for Massachusetts to act as a grand connector. The analysis of site reveals that this is not the case. Massachusetts Avenue is divided by the Anacostia River and abutting site conditions. However, there is much potential for development and the ultimate reconciliation of this corridor. This chapter delves into potential design solutions for this reconciliation.

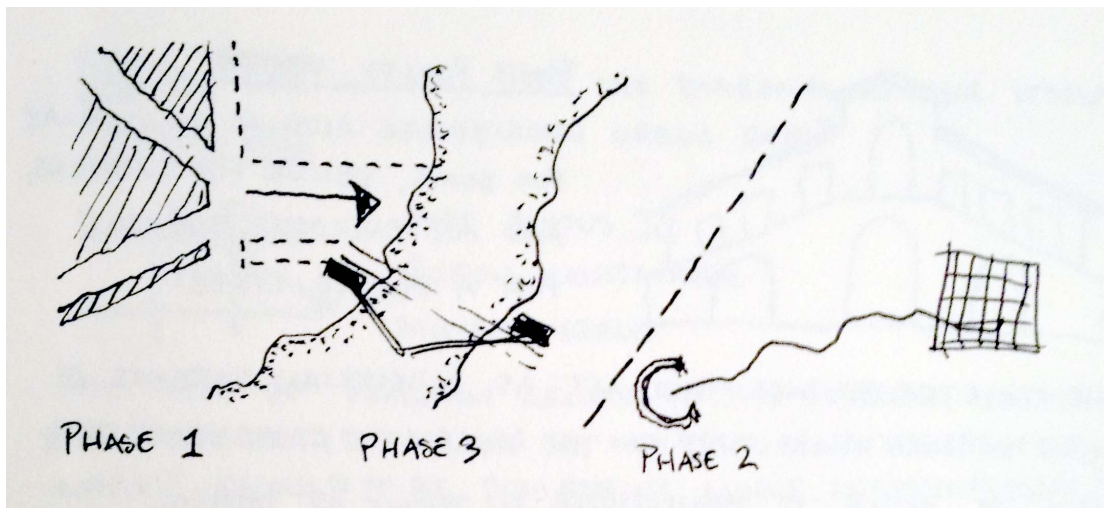
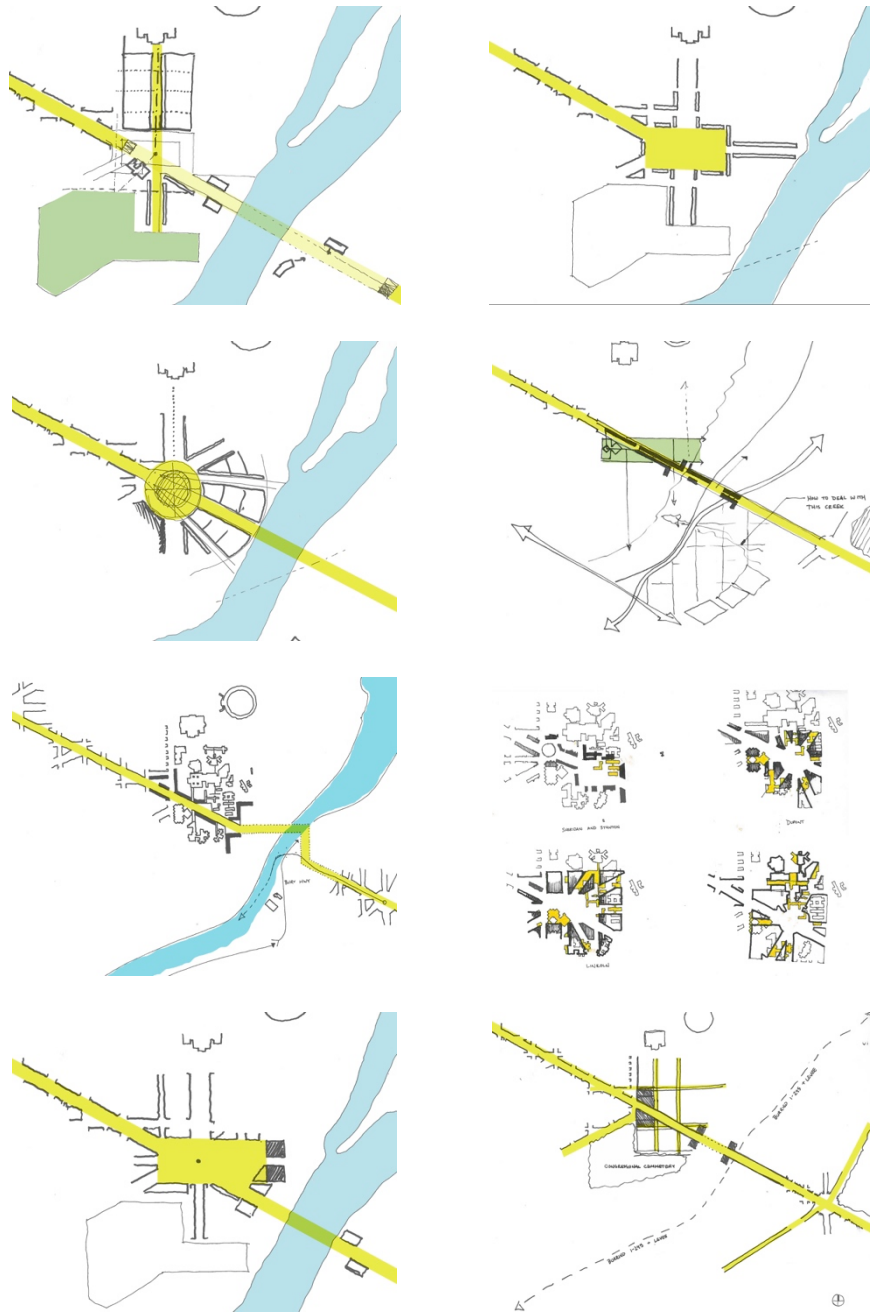


Figure 76: Phasing Sketch (author)



*Diagrams of Connection and Public Space*

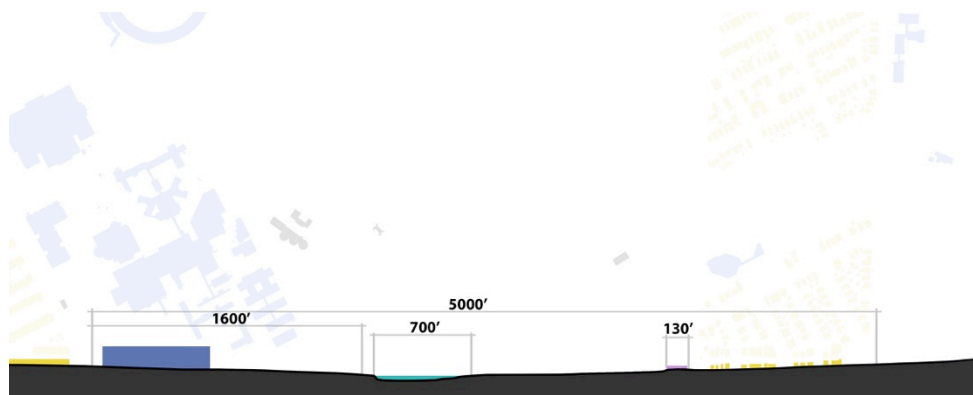


**Figure 77: Diagrams of Connection and Public Space (author)**



**Figure 78: Section and Dimensions of Site (author)**

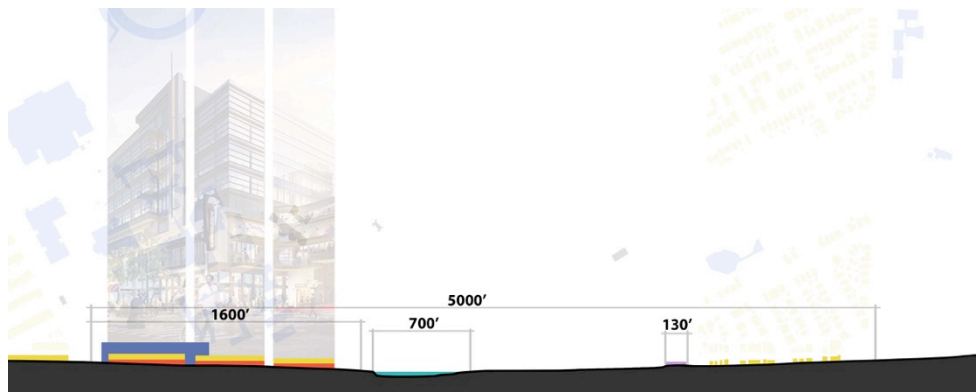
Any development along the Anacostia segment of the Massachusetts Avenue Corridor will take a considerable amount of time. This is due to the scale of the site and the various levels of division from one side of the river to the other. In addition to time the site has different conditions in terms of building typology and land use. From the western edge of 19<sup>th</sup> street to the eastern edge of Fort Dupont Circle the program will vary from mixed use to urban waterfront to gateway district. Each of these zones will have a unique character that relates to other typologies within the city. This leads to a principle of intelligent densification.



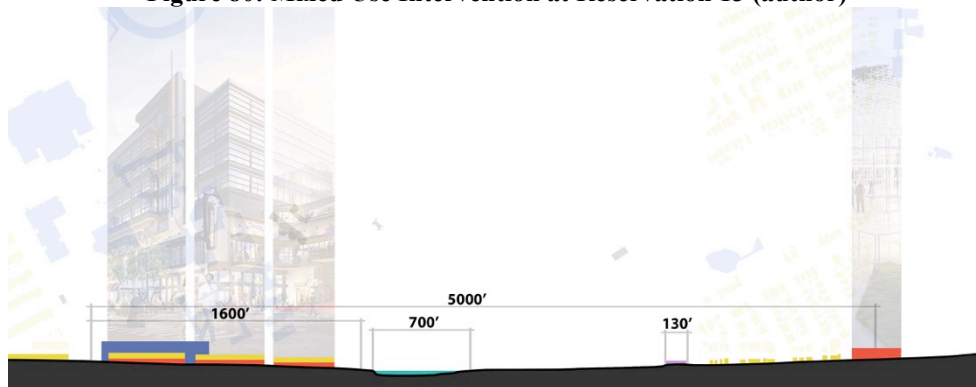
**Figure 79: Conditions to Remain, Lincoln Park, RFK, Fort Dupont Neighborhood (author)**

## Renovation

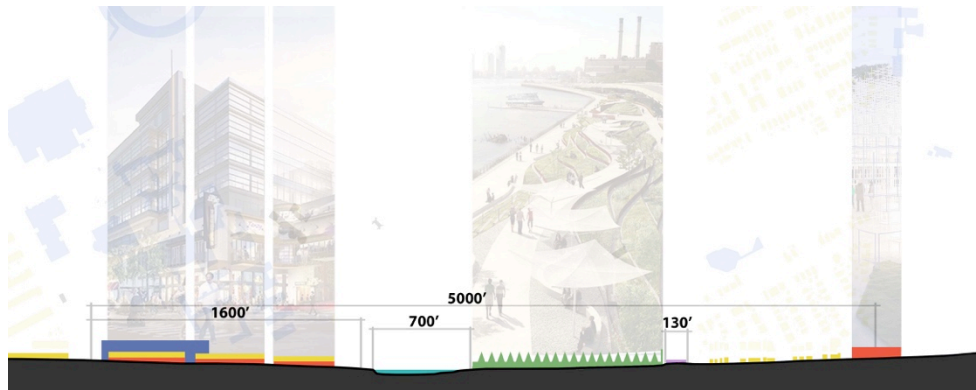
The current site of Reservation 13 has much potential for future development. Its proximity to the Stadium Armory Metro station and adjacency to the Anacostia River makes it an ideal location for a Transit Oriented Development. In addition, the site is edged with existing neighborhoods. As such the development of the site should address the neighborhood qualities while creating a celebratory resolution to the Massachusetts Avenue corridor.



**Figure 80: Mixed Use Intervention at Reservation 13 (author)**

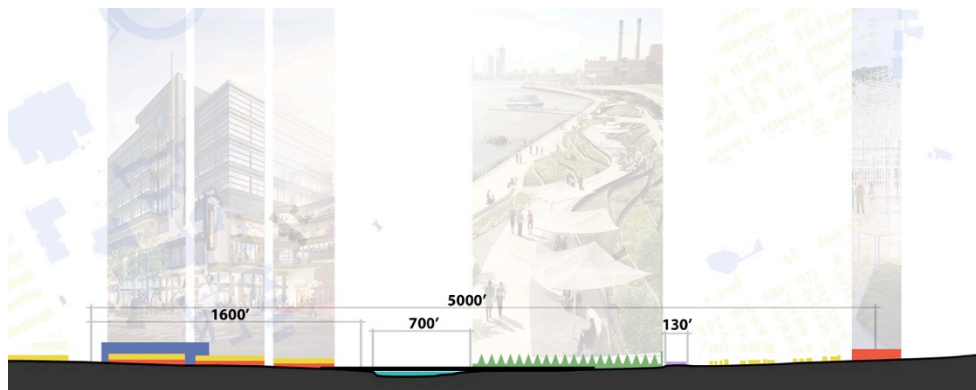


**Figure 81: Gateway District at Randle Circle (author)**



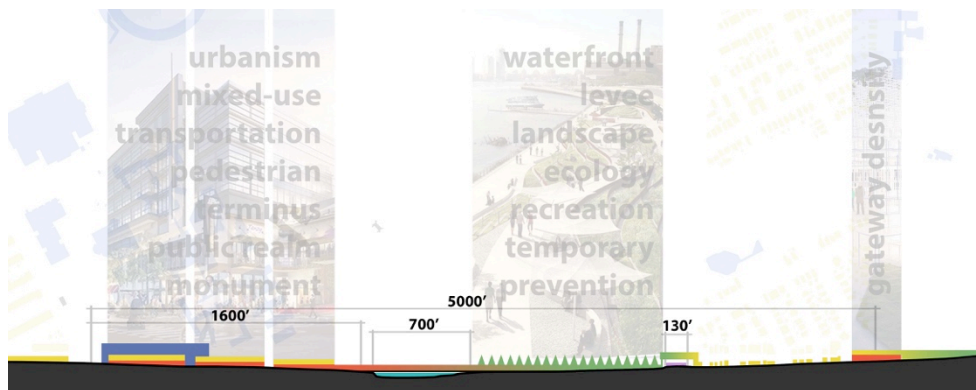
**Figure 82: Parkscape Along Waterfront (author)**

Reconnection



**Figure 83: Establishing Connection (author)**

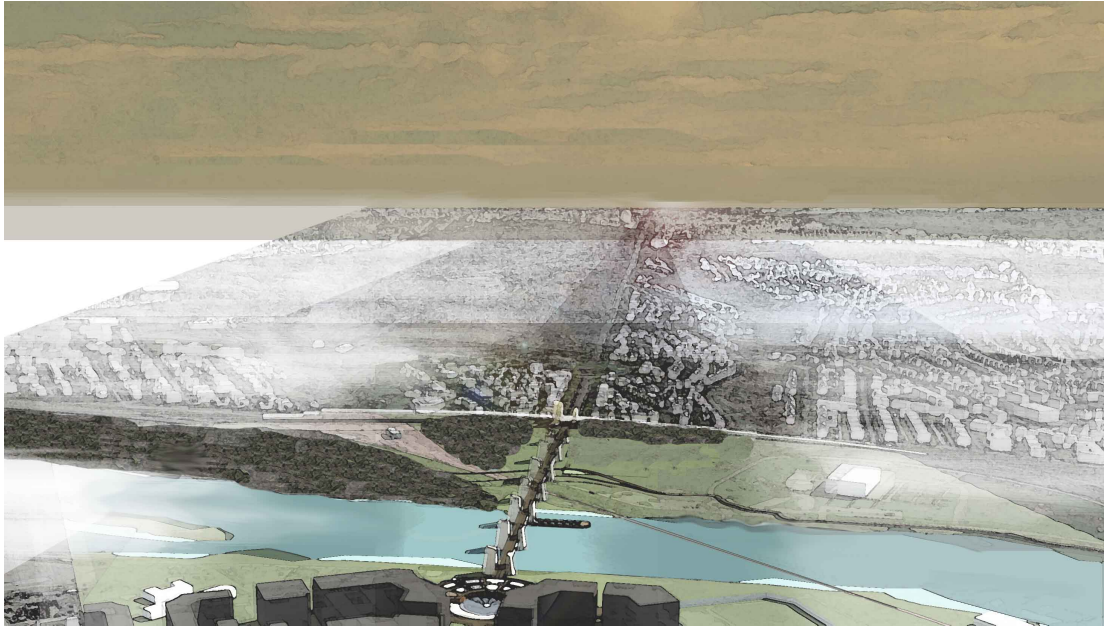
Reconciliation



**Figure 84: Harnessing Potential of Connection (author)**

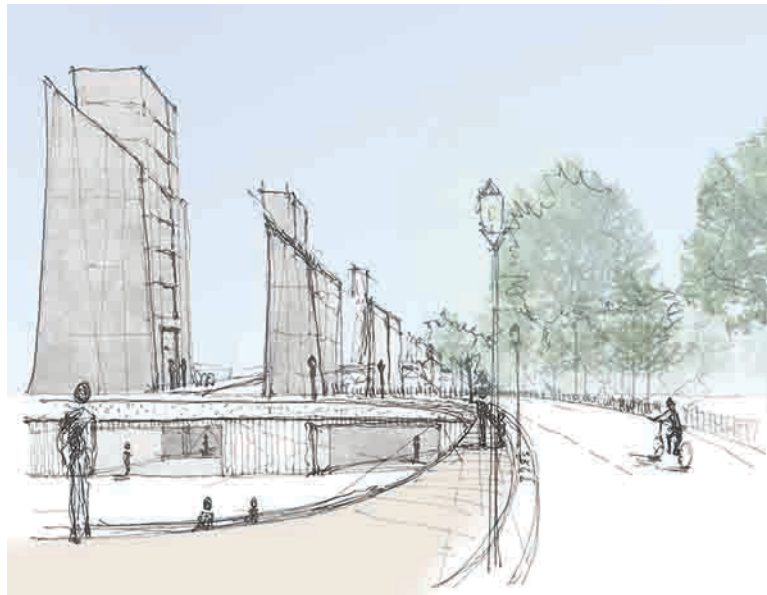
## 8: Design Proposal

In order to sharpen the focus of this thesis the EEK proposed plan for Reservation 13 was adapted (fig. 35). The plan calls for tree lined streets, a waterfront park, and a memorial circle. This circle served as a jumping off point for the proposed bridge across the Anacostia River. It provided the potential for the two sides of Massachusetts Avenue to be united and created a venue for dialogue and community engagement (fig. 89). Each of the pylons extending across the Anacostia River and adjacent park were designed in order to facilitate fluid dynamics of water flow, taper towards the south for solar orientation, and continue the scale of the buildings to the Southeast. The towers were also spaced in a way that registered the original seven towers of the Allen Bridge (fig. 20), the spacing of blocks to the Southeast of the Anacostia River, and the number of public squares and spaces between the Anacostia River and Rock Creek Park. By implementing these techniques for scaling the pedestrian experience its monumentality would stay true to the existing context. In addition, the pylons are divided by the axial nature of the pedestrian and bicyclist path thereby inverting the block and street nature of a city into a rhythm of tension and compression.



**Figure 85: Continuing the Legacy (author)**

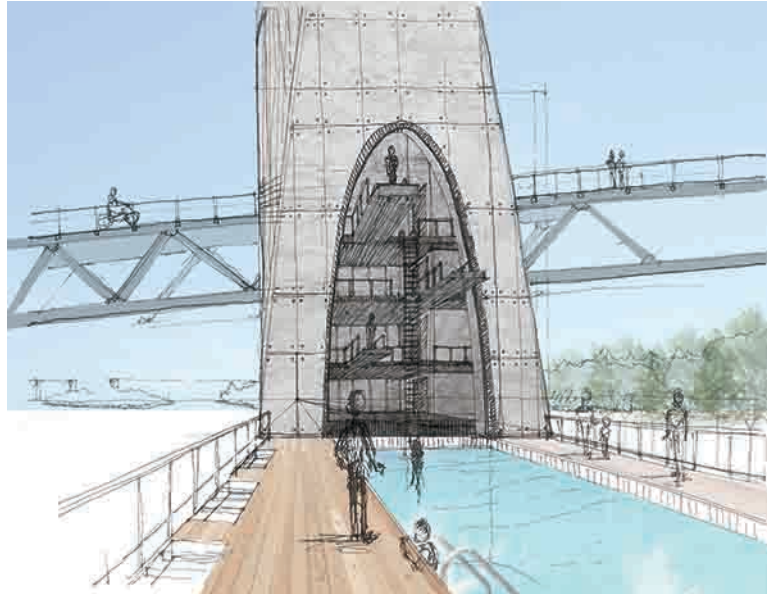
Washington, DC has the potential to rectify past wrongs and draw community closer together rather than further apart. The continuation of Massachusetts Avenue could serve as one such connection (fig. 85).



**Figure 86: Sketch of Pedestrian Circle (author)**

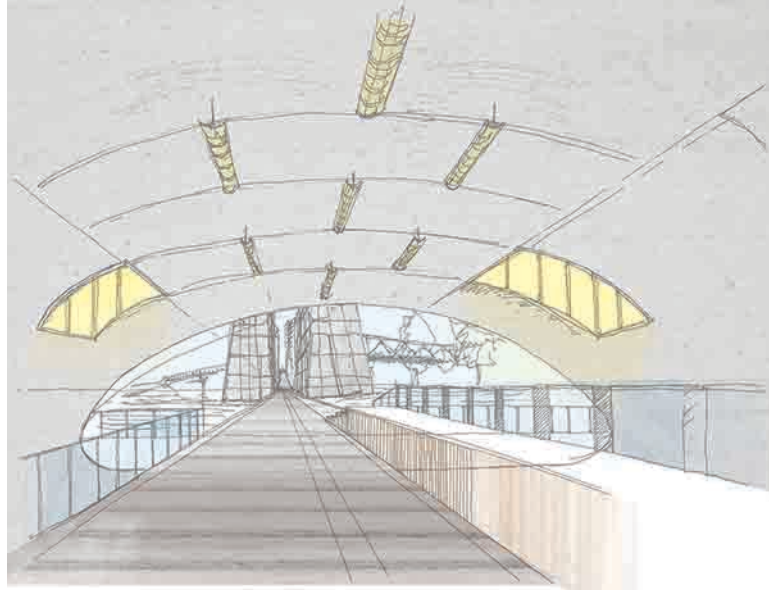


This connection should be monumental and give the Anacostia River a similar treatment to the Potomac River. It should celebrate the legacy of empowering figures of Washington, DC while providing a Pedestrian and Cyclist Bridge across the Anacostia River (figures 86-88).



**Figure 87: Sketch of Public Pool (author)**

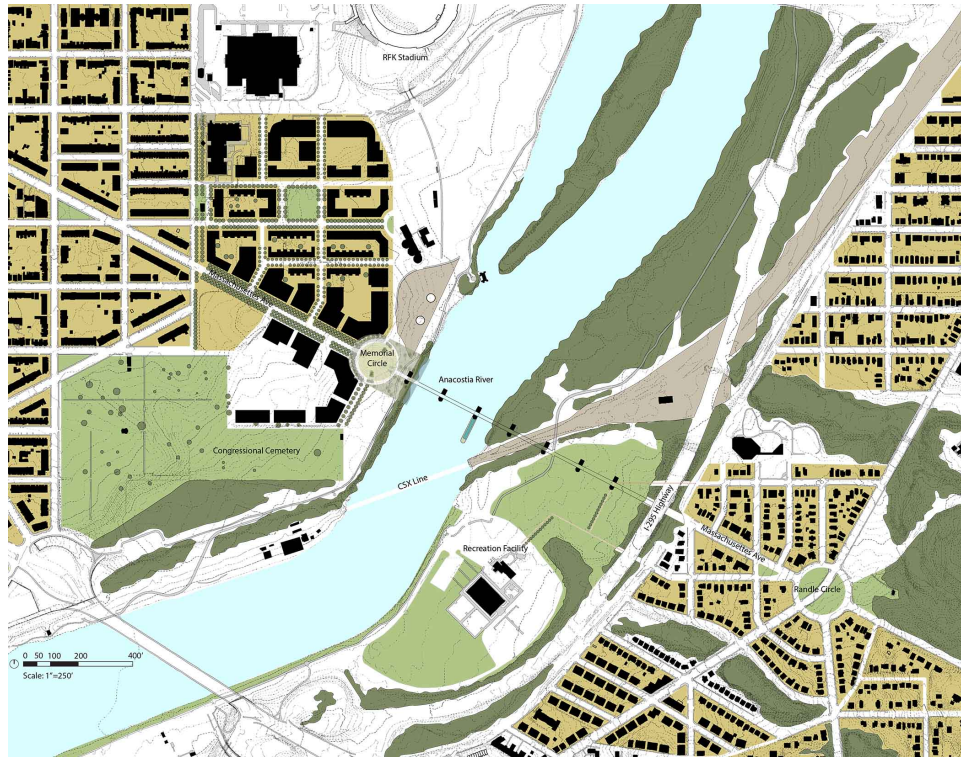
This bridge has the ability to delve underneath the Anacostia Freeway and reconnect the two segments of an otherwise great Avenue. By delving underneath the highway the Anacostia Waterfront Park will be accessible to the locals of the Twining Neighborhood and Fort Dupont Park. A skate park could occupy this opening in the highway barrier and promote safety and a round-the-clock community presence (fig. 88).



**Figure 88: Sketch of Skatepark Underpass (author)**

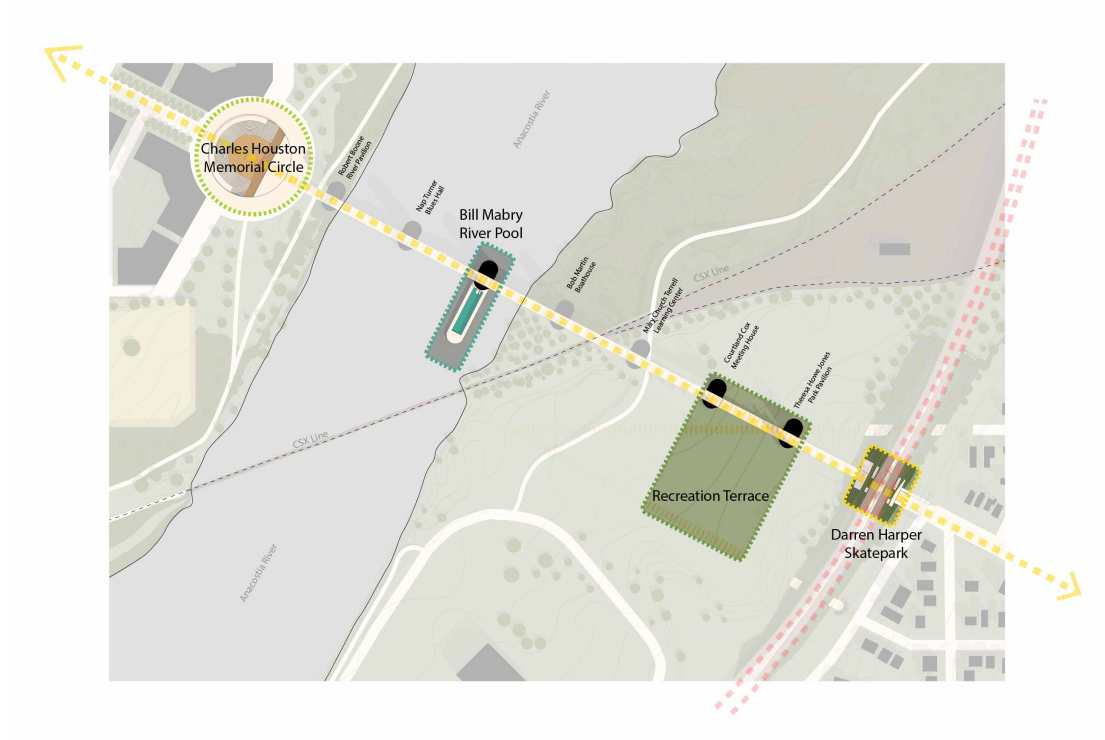
By creating gateways at the EEK proposed Memorial Circle and underneath I-295 a pedestrian culture can be promoted for this stretch of the Avenue. Bridge pylons scaled to the local typology Southeast of the highway have the ability to continue the urban fabric across the river and create a contextual architecture. The spacing between the bridge pylons provides the framework to invert the urban nature of street and block spacing. This will create an outward tension looking at the river and a compression between the pylons.





**Figure 89: Site Plan (author)**

The continuous line of Massachusetts Avenue provides a connection to the parks and the river that has otherwise been denied to the community (fig. 89). By providing a name of each of these places, the culture and identity of Washington D.C.'s legacy is brought forward into the public realm (fig. 90). Empowering figures such as Charles Houston, Bill Mabry, and Darren Harper are brought forward as namesakes and ultimately icons for community.



**Figure 90: Places Diagram (author)**

The Charles Houston Memorial Circle serves as a gateway to not only the bridge, but also the waterfront park (fig. 91). The plaza steps between two levels and allows porosity between the EEK-proposed streetscape of Massachusetts Avenue and the pedestrian and bicyclist bridge. The two levels also blend together to form an amphitheater and provide a space for community gatherings and dialogue.

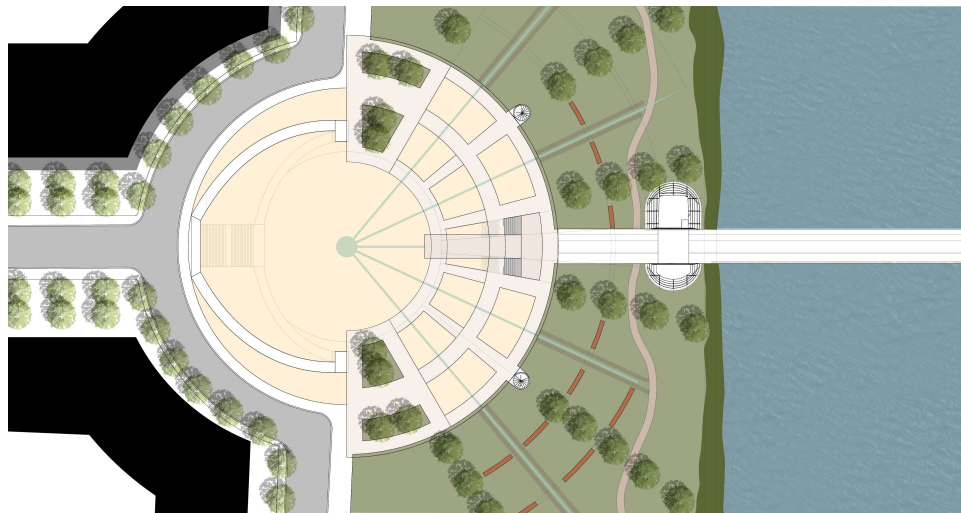
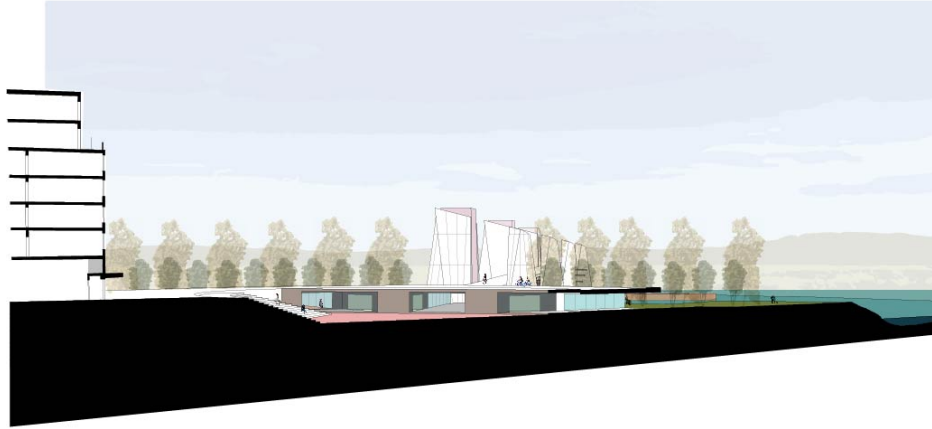


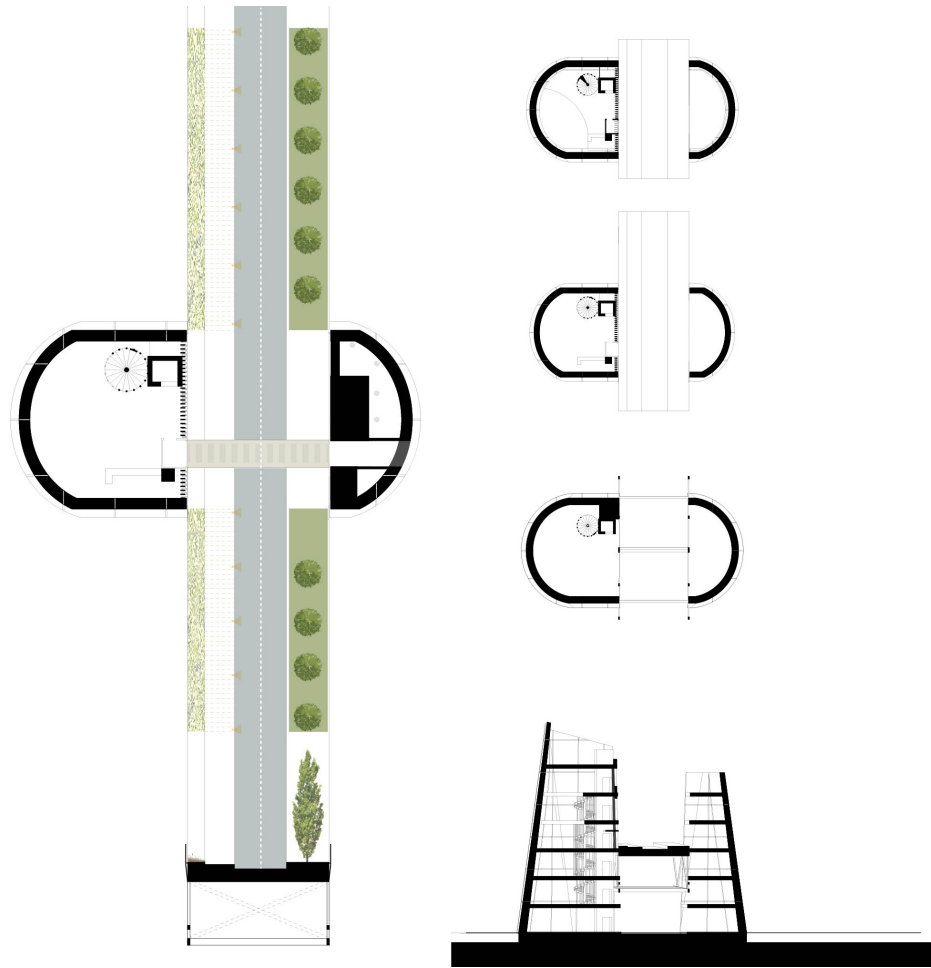
Figure 91: Memorial Circle Plan (author)

Stepping down from Massachusetts Avenue to the lower plaza allows pedestrians a view towards the river and the ability to engage with a sculptural fountain in the middle of the space. The pedestrian esplanade allows people to see their neighbors and listen to a local band or poet from either side of the river perform (fig. 92).



**Figure 92: Memorial Circle Perspectival Section (author)**

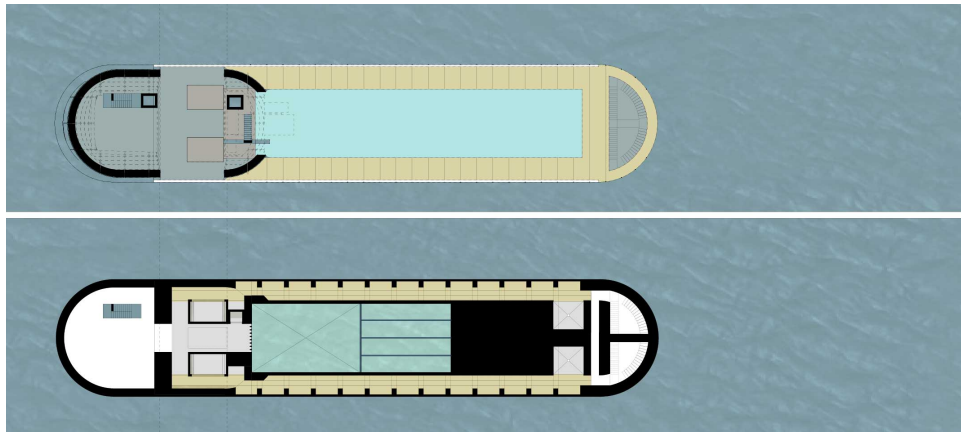
Pedestrians on the upper plaza can look down and see the activity below. The space gives the opportunity to descend a flight of stairs along the axis of Massachusetts Avenue closest to the bridge (fig. 98). The path across the bridge is divided between the cyclist and pedestrian realm. The pathway is flanked with planters that provide shade in the summer as well as protection from the wind in winter (fig. 93).



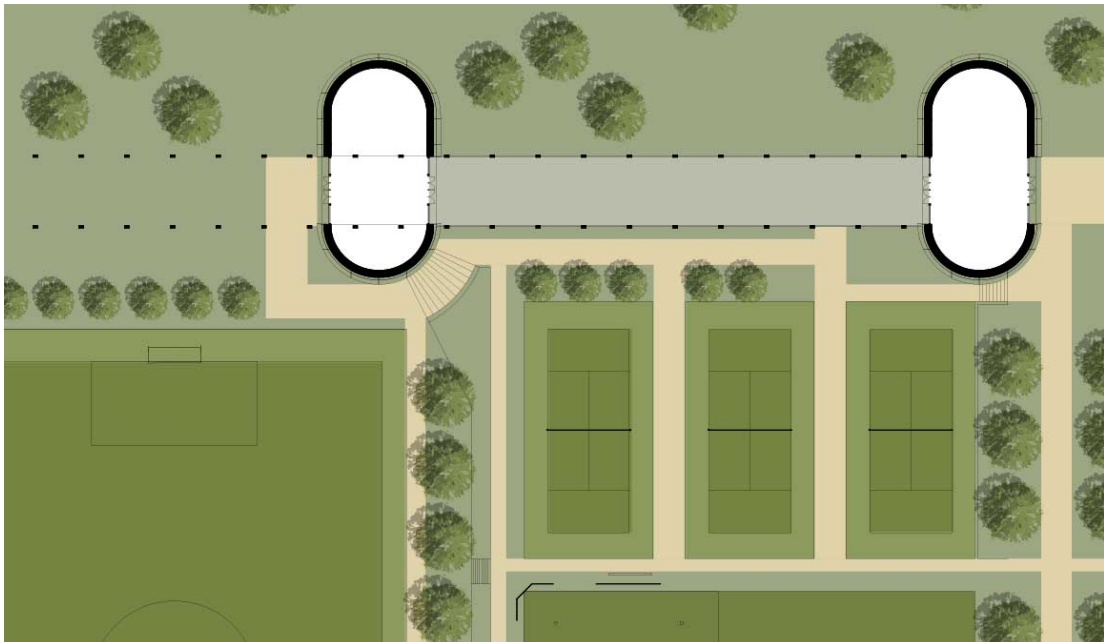
**Figure 93: Bridge and Pylon Details (author)**

The pylons of the bridge flank the path and provide points of interest and gathering. A blues hall, pool, and classroom building are just three of the seven programs that span the bridge. The pool is planned as a deck below the pylon and provides both Olympic length swimming lanes and diving boards (fig. 94). These features are amenities for the communities to both sides of the river and are meant to draw people together. On the southeast side of the river a series of recreational fields and courts provide the opportunity to engage in sport (fig. 95). Finally,

the skate park at the southeast end of the promenade provides a gateway from one side of the highway to the other (fig. 96).

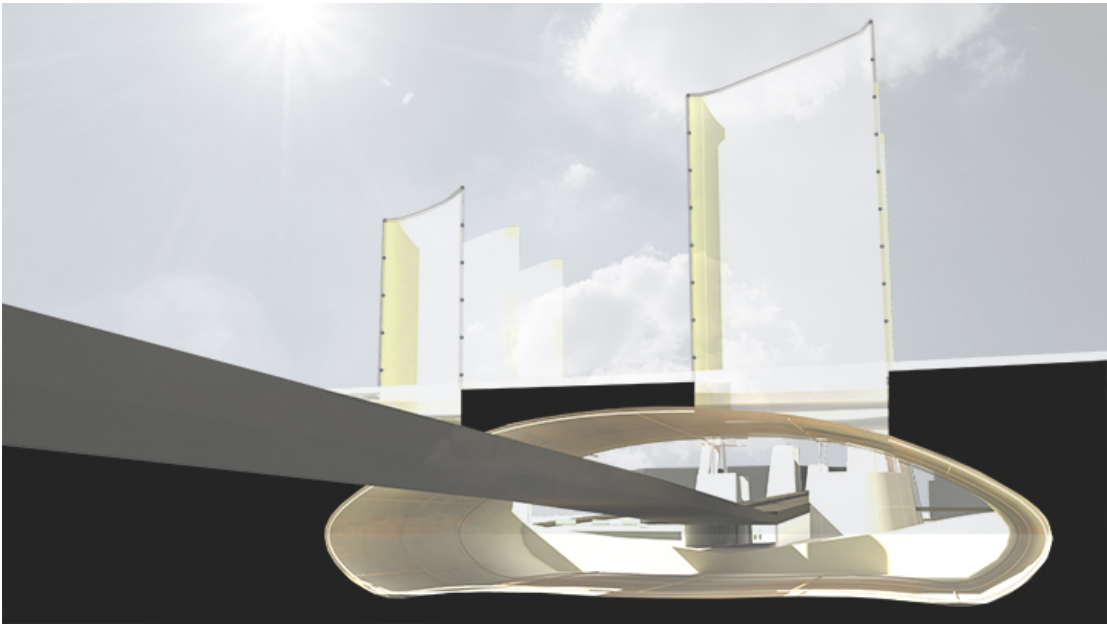


**Figure 94: Pool Plan (author)**

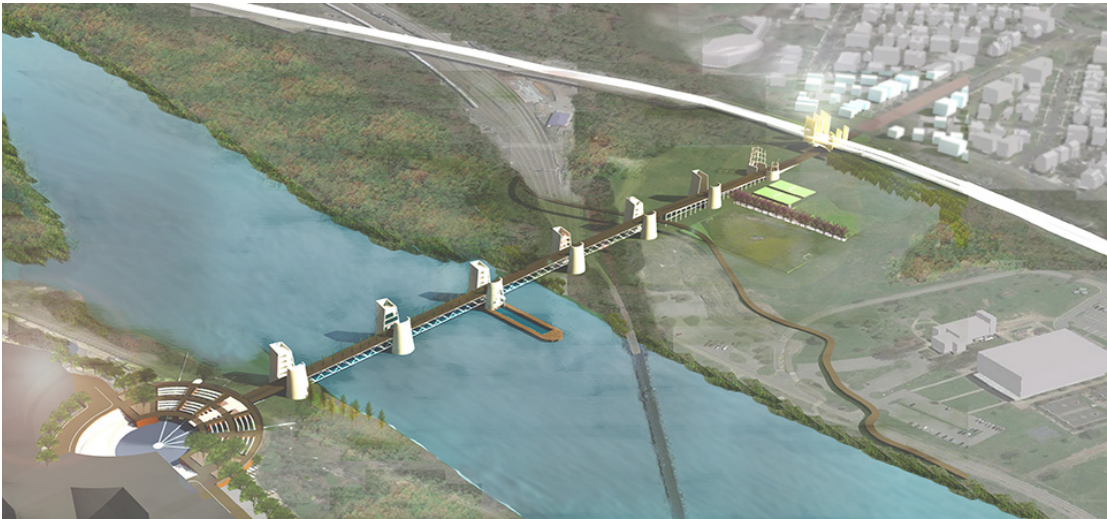


**Figure 95: Recreation Plan (author)**





**Figure 96: Skatepark Section (author)**



**Figure 97: Aerial Perspective (author)**

The bridge is monumental in nature because the Anacostia River deserves to be recognized as part of the cultural heritage and legacy of Washington, DC. The pedestrian experience flows between the monumental pylons of the bridge giving notoriety to the continuation of

not only Massachusetts Avenue but also the lives of figures that have empowered Washingtonians.



**Figure 98: Memorial Plaza (author)**

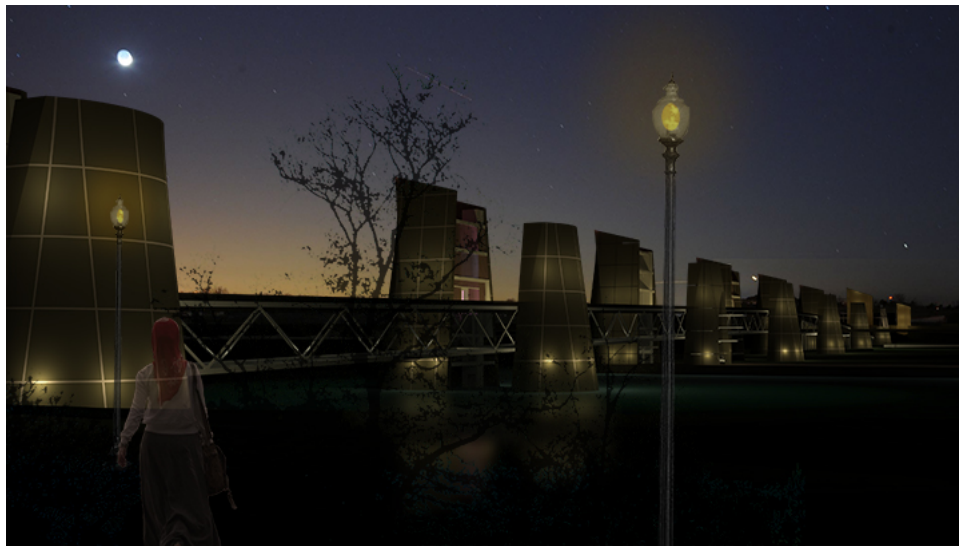


**Figure 99: Waterfront Park (author)**





**Figure 100: Pedestrian Promenade (author)**



**Figure 101: Monumental View at Night (author)**



**Figure 102: Bicyclist and Pedestrian Bridge (author)**

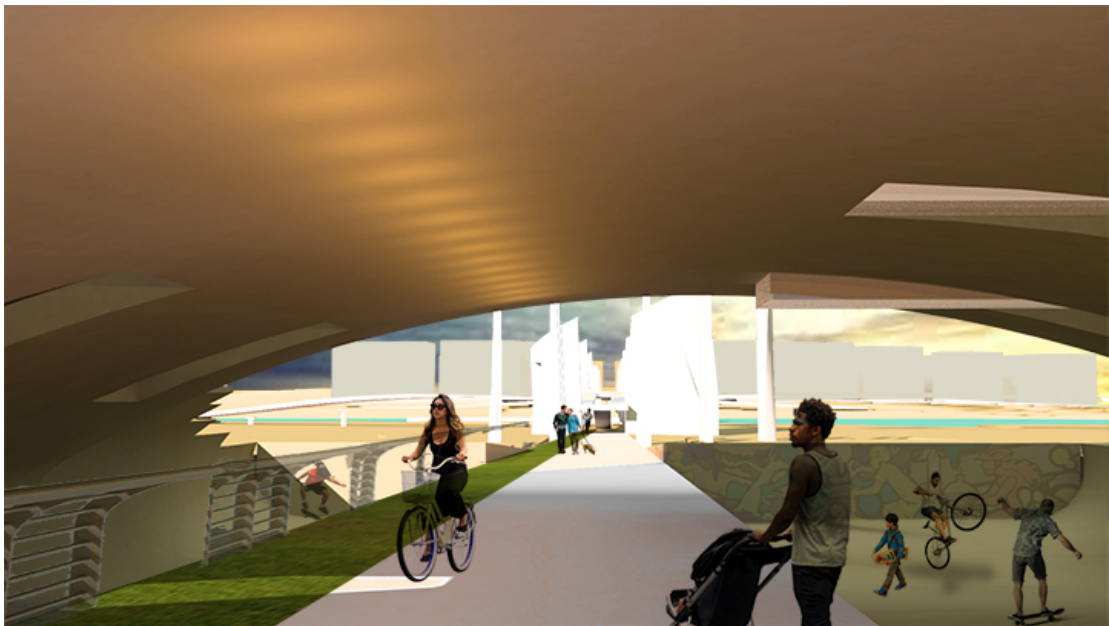


**Figure 103: Pool Deck (author)**





**Figure 104: Recreation Park (author)**



**Figure 105: Skate Park (author)**



**Figure 106: A Bridge for Community (author)**

Looking back from the Southeast to the Northwest (fig. 106) provides a view of the axial connection that this bridge will foster. It shows the potential for the bridge pylons to be activated by a pool, serve as a beacon for the pedestrian and vehicular intersection under the highway, and most importantly draw two sides of the river back together. The vision for this bridge is one centered around community and a dream for Washington, DC that transcends culture, economy, and politics.

## Appendices

### **200 R-1 DISTRICTS: GENERAL PROVISIONS**

- 200.1 The R-1 District is designed to protect quiet residential areas now developed with one-family detached dwellings and adjoining vacant areas likely to be developed for those purposes.
- 200.2 The provisions of this chapter are intended to stabilize the residential areas and to promote a suitable environment for family life. For that reason, only a few additional and compatible uses shall be permitted.
- 200.3 The R-1 District is subdivided by different area requirements into R-1-A and R-1-B Districts, providing for districts of low and high density, respectively.
- 200.4 Except as provided in chapters 20 through 25 of this title, in any R-1 District, no building or premises shall be used and no building shall be erected or altered that is arranged, intended, or designed to be used except for one (1) or more of the uses listed in this chapter

AUTHORITY: The Zoning Act of 1938, approved June 20, 1938 (52 Stat. 797, as amended; D.C. Official Code §§ 6-641.01 to 6-641.15 (formerly codified at D.C. Code §§ 5-413 to 5-432 (1994 Repl. & 1999 Supp.))).

SOURCE: §§ 3101.1 and 3101.2 of the Zoning Regulations, effective May 12, 1958; as amended by Final Rulemaking published at 47 DCR 9741 (December 8, 2000), incorporating by reference the text of Proposed Rulemaking published at 47 DCR 8335, 8345 (October 20, 2000).

### **300 R-2 DISTRICTS: GENERAL PROVISIONS**

- 300.1 The R-2 District consists of those areas that have been developed with one-family, semi-detached dwellings, and is designed to protect them from invasion by denser types of residential development. It shall be expected that these areas will continue to contain some small one-family detached dwellings.
- 300.2 Except as provided in chapters 21 through 25 of this title, in an R-2 District, no building or premises shall be used and no building shall be erected or altered that is arranged, intended, or designed to be used except for one (1) or more of the uses listed in §§ 301 through 319.
- 300.3 The following uses shall be permitted as a matter of right in R-2 Districts:
- (a) Any use permitted in R-1 Districts under § 201;
  - (b) Community house existing on May 12, 1958;
  - (c) One-family, semi-detached dwelling; and
  - (d) Youth residential care home, community residence facility, or health care facility for seven (7) to eight (8) persons, not including resident supervisors or staff and their families; provided, that there is no property containing an existing community-based residential facility for seven (7) or more persons either in the same square or within a radius of five hundred feet (500 ft.) from any portion of the property.

AUTHORITY: Unless otherwise noted, the authority for this chapter is the Zoning Act of 1938, approved June 20, 1938 (52 Stat. 797, as amended; D.C. Official Code §§ 6-641.01 to 6-641.15 (formerly codified at D.C. Code §§ 5-413 to 5-432 (1994 Repl. and 1999 Supp.))).

SOURCE: § 3101 of the Zoning Regulations, effective May 12, 1958; as amended by: Final Rulemaking published at 28 DCR 3482, 3490 (August 7, 1931); Final Rulemaking published at 40 DCR 726 (January 22, 1993); as amended by Final Rulemaking published at 47 DCR 9741-43 (December 8, 2000), incorporating by reference the text of Proposed Rulemaking published at 47 DCR 8335, 8355-56 (October 20, 2000).

## **330 R-4 DISTRICTS: GENERAL PROVISIONS**

- 330.1 The R-4 District is designed to include those areas now developed primarily with row dwellings, but within which there have been a substantial number of conversions of the dwellings into dwellings for two (2) or more families.
- 330.2 Very little vacant land shall be included within the R-4 District, since its primary purpose shall be the stabilization of remaining one-family dwellings.
- 330.3 The R-4 District shall not be an apartment house district as contemplated under the General Residence (R-5) Districts, since the conversion of existing structures shall be controlled by a minimum lot area per family requirement.
- 330.4 Except as provided in Chapters 20 through 25 of this title, in an R-4 District, no building or premises shall be used and no building shall be erected or altered that is arranged, intended, or designed to be used except for one (1) or more of the uses listed in §§ 330 through 349.
- 330.5 The following uses shall be permitted as a matter of right in an R-4 District:
- (a) Any use permitted in R-3 Districts under § 320.3;
  - (b) Child/Elderly development center located in a building that was built as a Church and that has been used continuously as a church since it was built; provided, that all of the play space required for the center by the licensing regulations shall be located on the same lot on which the center is located;
  - (c) Child/Elderly development center or adult day treatment facility; provided, that the center shall be limited to no more than sixteen (16) individuals;
  - (d) Community-based residential facility; provided that, notwithstanding any provision in this title to the contrary, the Zoning Administrator has determined that such community-based residential facility, that otherwise complies with the zoning requirements of this title that are of general and uniform applicability to all matter-of-right uses in an R-4 District, is intended to be operated as housing for persons with handicaps. For purposes of this subsection, a "handicap" means, with respect to a person, a physical or mental impairment which substantially limits one or more of such person's major life activities, or a record of having, or being regarded as having, such an impairment, but such item does not include current, illegal use of, or addiction to, a controlled substance;
  - (e) [REPEALED];
  - (f) Flat;

- (g) Hospital, sanitarium, or clinic for humans;
- (h) Museum; and
- (i) Private club, lodge, fraternity house, sorority house, or dormitory, except when the use is a service customarily carried on as a business.

330.6 A rooming or boarding house shall be permitted as a matter of right in an R-4 District; provided:

- (a) Accommodations are not provided to transient guests who stay ninety (90) days or less at the premises;
- (b) No sign is displayed on the premises;
- (c) No advertisement is displayed or published on or off the premises holding out the establishment to be a hotel, motel, inn, hostel, bed and breakfast, private club, tourist home, guest house, or other transient accommodation;
- (d) Cooking facilities are not provided in any individual unit; and
- (e) In a rooming house, no central dining or food preparation area is provided for guests.

330.7 Conversion of an existing non-residential building or structure existing prior to May 12, 1958, to a residential building shall be permitted as a matter of right in the R-4 Zone District subject to the following conditions:

- (a) There is an existing non-residential building on the property at the time of filing an application for a building permit;
- (b) The maximum height of any addition to the existing structure shall not exceed thirty-five feet (35 ft.);
- (c) There shall be a minimum of nine hundred square feet (900 sq. ft.) of land area per dwelling unit;
- (d) An addition shall not extend further than ten feet (10 ft.) past the furthest rear wall of any principal residential building on an adjacent property;
- (e) A roof top architectural element original to the structure such as a turret, tower, or dormers shall not be removed or significantly altered, including changing its shape or increasing its height, elevation, or size;
- (f) Any addition, including a roof structure or penthouse, shall not block or impede the functioning of a chimney or other external vent on an adjacent property required by any municipal code;
- (g) Any addition, including a roof structure or penthouse, shall not interfere with the operation of an existing or permitted solar energy system on an adjacent property, as evidenced through a shadow, shade, or other reputable study acceptable to the Zoning Administrator; and
- (h) An apartment house in an R-4 Zone District converted from a non-residential building prior to June 26, 2015, shall be considered a conforming

use and structure, but shall not be permitted to expand either structurally or through increasing the number of units, unless approved by the Board of Zoning Adjustment pursuant to §§ 3104.1 and 3104.3 and § 337.

SOURCE: §§ 3104.1 and 3104.3 of the Zoning Regulations, effective May 12, 1958; as amended by Final Rulemaking published at 28 DCR 3482, 3494 (August 7, 1981); as amended by Final Rulemaking published at 29 DCR 4913, 4918 (November 5, 1982); as amended by Final Rulemaking published at 35 DCR 465, 467 (January 22, 1988); as amended by Final Rulemaking published at 36 DCR 7625 (November 3, 1989); as amended by Final Rulemaking published at 46 DCMR 3997, 3998 (April 30, 1999); as amended by Emergency Rulemaking published at 47 DCR 5875 (June 12, 2000) [EXPIRED]; as amended by Final Rulemaking published at 47 DCR 9741 (December 8, 2000), incorporating by reference the text of Proposed Rulemaking published at 47 DCR 8335, 8359 (October 20, 2000); as amended by Final Rulemaking published at 49 DCR 2750 (March 22, 2002); as amended by Final Rulemaking published at 53 DCR 10085 (December 22, 2006); as amended by Final Rulemaking published at 54 DCR 8965 (September 14, 2007); as amended by Final Rulemaking published at 62 DCR 8883 (June 26, 2015); as amended by Final Rulemaking published at 62 DCR 12737 (September 25, 2015).

## **2800 GENERAL PROVISIONS AND PURPOSES (HE)**

- 2800.1 The Hill East (HE) District is applied to Federal Reservation 13, which is designated for mixed use development on the Future Land use Map of the Comprehensive Plan and the Reservation 13 Hill East Waterfront Master Plan, as approved by the Council of the District of Columbia on October 15, 2002, and is the subject of the Hill East Waterfront Design Guidelines, June 2008.
- 2800.2 Any reference to a street or a square refers to proposed streets and squares as depicted in Map A attached to the Office of Planning report dated June 1, 2007, filed in Zoning Commission Case Number 04-05, which may be viewed at the D.C. Office of Zoning.
- 2800.3 Any reference to a street shall be deemed to include a reference to the Southeast (S.E.) quadrant.
- 2800.4 For the purposes of this chapter the terms:
- (a) “Primary street” shall mean Independence Avenue, Massachusetts Avenue, and Water Street; and
  - (b) “Secondary street” shall refer to 19th Street, 20th Street, 21st Street, Burke Street, C Street, and C Place.
- 2800.5 The boundaries of the HE District correspond to Federal Reservation 13, which is bounded by Independence Avenue on the north, 19th Street on the west, Water Street on the east, and the Congressional Cemetery on the south.
- 2800.6 The HE District is divided into the following four subdistricts for the purpose of lot occupancy, floor area ratio (“FAR”) and building height:
- (a) HE-1 (19th Street) Subdistrict, which includes squares with frontage onto 19th Street, between Independence Avenue and Massachusetts Avenue);
  - (b) HE-2 (20th Street) Subdistrict, which includes squares with frontage on 20th Street;



- (c) HE-3 (Water Street) Subdistrict, which includes squares with frontage on Water Street; and
- (d) HE-4 (Corrections) Subdistrict, which includes squares N and O.

2800.7 The purposes of the Hill East District are to:

- (a) Connect and integrate Reservation 13 with adjacent neighborhoods, and the new waterfront park along the Anacostia River;
- (b) Utilize the site to meet a diversity of public needs, including health care, education, employment, government services and administration, retail, recreation and housing;
- (c) Extend the existing pattern of local streets to and through the site to create simple, well-organized city blocks and appropriately-scaled development;
- (d) Maintain a human-scale of building heights that match existing neighborhood buildings and increase in height as the site slopes downward to the Anacostia waterfront;
- (e) Connect the Hill East neighborhood and the city at large to the waterfront via tree-lined public streets, recreational trails, and increased access to waterfront parklands;
- (f) Demonstrate environmental stewardship through environmentally-sensitive design, ample open spaces, and a waterfront park that serve as public amenities and benefit the neighborhood and the city;
- (g) Promote the use of mass transit by introducing new uses near Metro stations, and create an environment where the pedestrian, bicycle, and auto are all welcome, complementary, and unobtrusive, reducing the impact of traffic on adjacent neighborhood streets;
- (h) Limit the Central Detention Facility and the Correction Treatment Facility to areas south of Massachusetts Avenue; and
- (i) Create attractive “places” of unique and complementary character including:
  - (1) A new, vital neighborhood center around the Metro station at C and 19th Streets that serves the unmet neighborhood commercial needs of the community and extends to the waterfront with a new residential district;
  - (2) Massachusetts Avenue as a grand Washington ‘boulevard’ in the tradition of the L’Enfant plan;
  - (3) A district for city-wide uses and services, such as health care, education, and recreation along Independence Avenue; and
  - (4) A grand public waterfront park incorporating monumental places and quiet natural retreats accessed by a meandering park drive set back from the Anacostia River.

- 2800.8 The Hill East District shall constitute the Zoning Regulations for the geographic area referred to in § 2800.1. Where there are conflicts between this chapter and other parts of the Zoning Regulations, the provisions of the Hill East District shall govern.
- 2800.9 Unless specifically exempted, the requirements of the HE District shall apply to all new buildings and to all other buildings where any additions, alterations, or repairs within any 12-month period exceed one hundred percent (100%) of the assessed value of the building as set forth in the records of the Office of Tax and Revenue as of the date of a building permit application, provided:
- (a) The cost basis for alterations or additions to an existing building shall be the amount indicated by the applicant on the application for a building permit; and
  - (b) In the case of an addition, the requirements and incentives of this Chapter apply only to the addition.

SOURCE: Final Rulemaking and Order No. 04-05 published at 56 DCR 6181 (August 7, 2009); as corrected by Errata Notice published at 58 DCR 4314, 4316 (May 20, 2011).<sup>32</sup>

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<sup>32</sup> DC.gov. "Office of Zoning." Zoning Regulations. Last modified 2015. Accessed November 23, 2015. <http://dcoz.dc.gov/resources/regulations.shtm>.

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