

ABSTRACT

Title of Document:

THE REVITALIZATION OF THE AMERICAN DOWNTOWN: A NETWORK OF PUBLIC SQUARES IN RICHMOND, VIRGINIA

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In Europe, public squares are outdoor living rooms where people experience vibrant urban life in community with others. Well defined streets and squares work together to create a rich spatial experience for people moving through cities. American cities often lack this strong tradition of public space and experienced serious decline during the mid-20th century. Now as urban populations are increasing, it is time to re-invigorate the public realm of our urban areas. This thesis proposes an enhanced network of public squares in the downtown of Richmond, VA, a typical mid-sized city whose downtown is experiencing a resurgence. Using extensive precedent analysis, the investigation will apply design principles and typological characteristics to three proposed public squares in Richmond. The goals are to create catalysts for new development in the downtown and to encourage a renewed pedestrian experience of the city.

THE REVITALIZATION OF THE AMERICAN DOWNTOWN:

A NETWORK OF PUBLIC SQUARES IN RICHMOND, VIRGINIA

By

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Thesis submitted to the Faculty of the Graduate School of the
University of Maryland, College Park, in partial fulfillment
of the requirements for the degree of
Master of Architecture
2013

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ACKNOWLEDGEMENTS

I want to thank my committee for their valued guidance and advice throughout the entire process as well as my classmates and friends who gave me suggestions and encouragement.

I also want to thank David M. Schwarz Architects for providing me with a fantastic opportunity to study public squares in Europe as a recipient of their 2013 DMSAS Internship and Traveling Fellowship.

And finally thanks to my family for your continued love and support.

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INTRODUCTION

Public squares have been an integral part of urban life for the past 3,000 years of human history. They are the gathering places of the city in which one encounters the full diversity of society and learns to understand and tolerate others.¹ Humans, as social creatures who enjoy the company of other humans, need public squares which serve, according to Lewis Mumford, as the “stage upon which the drama of social life can be enacted, with the actors taking their turn, too, as spectators.”² From both a social and formal standpoint, public squares can be thought of as the living rooms of the city, because they provide spatial definition for basic activities and encounters within the urban fabric.

The public square can act as the heart of its neighborhood and sometimes even its entire city. Squares “make the community a community and not merely an aggregate of individuals.”³ Rooted in the tradition of the Greek agora, they continue to have great political significance as places where communities gather for civic events, rallies, and protests. They are often the location of a city’s most important buildings and symbols which make central squares the location of the most memorable images of cities. Because of their important status, public squares have the potential to be designed as works of art equal to any painting, sculpture, or individual building.⁴

European cities have many examples of great public squares that have set the bar for what a public square is capable of becoming. Just hearing their names—St. Peter’s Square in Rome, St. Mark’s Square in Venice, or Trafalgar Square in London—evokes grand images

¹ Shaftoe, 5.

² Mumford in Shaftoe, 5.

³ Paul Zucker, *Town and Square from the Agora to the Village Green*. (New York: Columbia University Press, 1959), 1.

⁴ Ibid.

which epitomize the idea of the city. Such memorable squares are largely absent from cities in the United States, where public squares developed very differently from their counterparts in Europe for a variety of reasons which will be discussed later. In the mid to late 20th century, however, the combination of Modernist city planning ideals and population shifts to the suburbs led to the decay of existing public squares. New public squares that were designed under Modernist principles were unable to foster the life and activity necessary for a square to succeed. The decline of the public square in America after World War II correlated directly with the decline of our downtown cities. Accepting the value of vital, urban public squares, the resurgence of American downtowns must be accompanied by a revival of this typology.

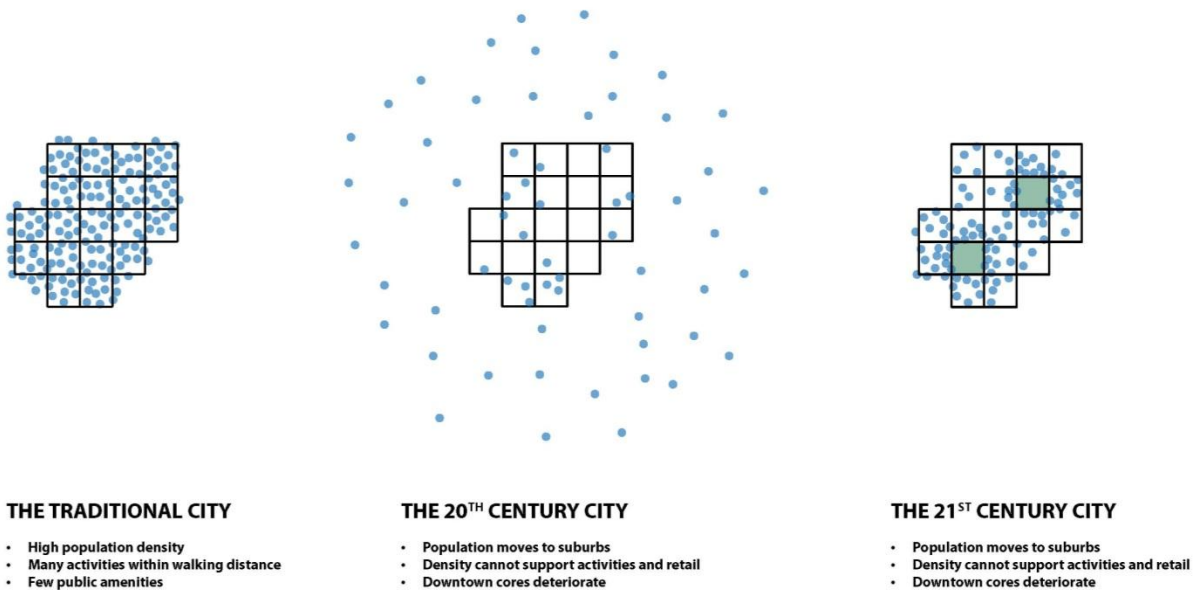


Figure 1. Concept Diagram – Density

Urban public squares do not operate in isolation, but within a larger network of public space. While a square may be centered in a specific neighborhood, it is accessible to people from the rest of the city and elsewhere. This linkage occurs spatially through pedestrian and transportation paths through the city. The legibility of this network is important because of the

huge role that public space plays in the overall legibility of a city. As cities grow and become ever more complex, they require a greater sense of order that can be enhanced by public squares which provide spatial, physical and psychological relief from the repetitive built character of the urban block. This thesis asks how public squares can be introduced into the larger network of public spaces in American cities so they can spur revitalization in downtowns which have suffered from depopulation and decentralization in the 20th century.

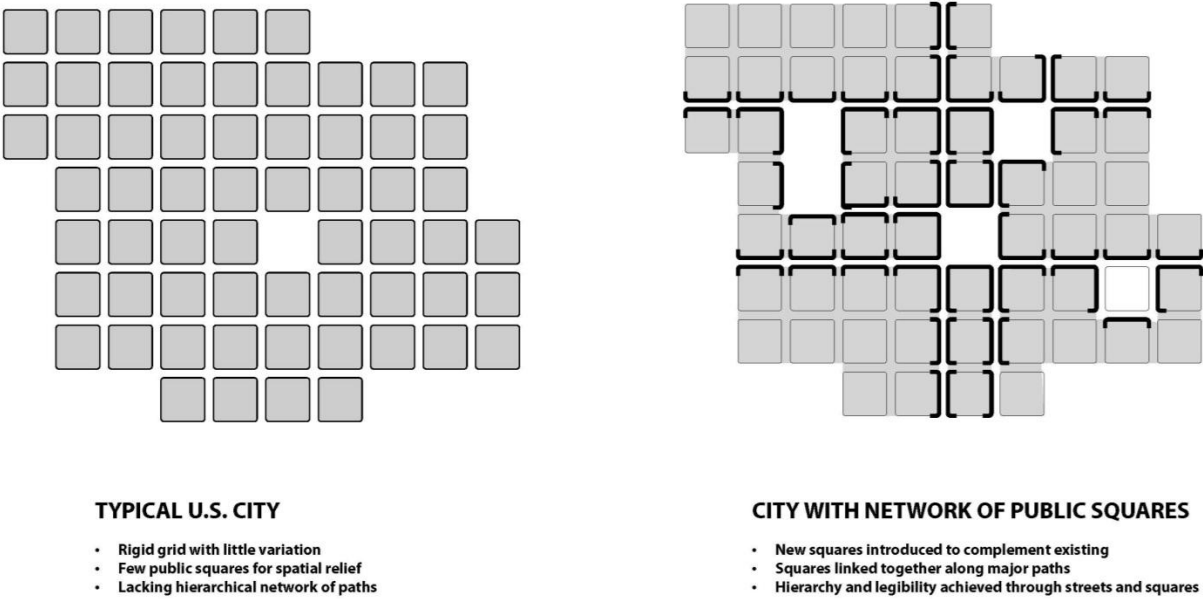


Figure 2. Concept Diagram - Network of Squares

In the past few decades, there have been signs of change as people move back into downtown areas. U.S. Census data from 2010 shows that city cores saw significant residential growth in the first decade of the century.⁵ Additionally, a recent survey by the National Association of Realtors shows that 58% of homebuyers prefer mixed-use, walkable

⁵ Eric Jaffe, “So Are People Moving Back to the City or Not?,” The Atlantic Cities, <http://www.theatlanticcities.com/arts-and-lifestyle/2011/11/so-are-people-moving-back-city-or-not/487/>

neighborhoods.⁶ People recognize the advantage of living near their workplace, services, cultural institutions and entertainment venues. Binding these together is the public realm of the city, which up to the present has been largely neglected in the United States. Cities are beginning to recognize the potential benefits of public squares, as can be seen by the increasing number of downtown parks and squares that have been re-designed and enhanced in the past decade. The Project for Public Spaces, an advocacy and design group, claims that public spaces can help downtowns attract and retain tenants, generate revenue, increase tenant and employee satisfaction, and combat crime.⁷ Now is the time for cities to embrace the public square as a crucial element that can help solidify the population gains made by urban centers and encouraging further growth.

City living is undeniably more sustainable than suburban sprawl. Urban dwellers walk more, drive less, and live in denser housing, which is a major reason why they have smaller carbon footprints than the average American.⁸ Suburban sprawl is consuming the open land in our country at an alarming rate. From 1960 to 1990, the U.S. population increased by 47%, while the amount of urbanized land increased by 107%.⁹ At some point in the future, urbanization and denser forms of housing will be the only alternative to our increasingly irresponsible settlement patterns in the United States. However, before irreparable damage is done to our environment and natural landscape, we can embrace the higher density, more sustainable lifestyle that is currently found in cities. This process is underway, and public squares are an important amenity that can help ease this transition in our living habits. If people can begin to value a lively public square within walking distance of their apartment in the same way that they currently value a

⁶, Christopher Leinberger and Mariela Alfonzo, "Walk This Way: The Economic Promise of Walkable Places in Metropolitan Washington, DC, The Brookings Institution, May 2012.

⁷ Project for Public Spaces, "How Public Spaces Can Boost Building Performance,"

<<http://www.pps.org/reference/bldgperformance/>>

⁸ <http://www.guardian.co.uk/environment/2009/mar/23/city-dwellers-smaller-carbon-footprints>

⁹ <http://www.sierraclub.org/sprawl/population.asp>

nearby shopping mall surrounded by acres of parking lot, we could see greater numbers of downtown residents that recognize the personal and environmental benefits of urban living.

To test ideas of a public square network, the case study of Richmond, VA has been selected. Richmond is a fairly typical mid-size U.S. city with a downtown that has struggled with depopulation and decentralization from the mid-20th century.

Richmond's goal of revitalizing Downtown is well underway. There has been a marked increase in downtown residents and the construction of new apartment buildings. The downtown population has increased to 9,794 from 5,013 in 2000¹⁰, and by 2014 the number of residents is expected to increase to 16,500.¹¹ New buildings and renovations continue to bring more units on the market, but there are no signs of a slowdown. Additionally, market surveys have shown that Richmond can support more restaurants and retail to serve Downtown workers and residents.

Unfortunately these new downtown residents are arriving at their new apartments to find a public realm that has not developed since the office boom of the 1970's. Like other U.S. cities, office buildings in Richmond often fill the entire block, leaving a large portion of it open as a public plaza. These plazas, lacking any adjacent ground floor land use, are not fulfilling the role of a true public square that serves as a gathering place for all types of people. The city has a park system, but its connections into the downtown core are tenuous at best.

People move to the cities for the close proximity to amenities and other people. A public square is an amenity that brings people together outdoors, a crucial aspect of urban life. Richmond has significant amounts of underutilized land that are ripe for development. Some portion of that space should be dedicated to the creation of a system of active public squares, but

¹⁰ Carol Hazard, "Apartments are booming in downtown Richmond," *Richmond Times-Dispatch*, Nov. 23, 2012, <http://www.timesdispatch.com/business/apartments-are-booming-in-downtown-richmond/article_f85f6e81-adac-5555-a481-69fe562e0619.html>.

¹¹ Downtown Plan, p. 6.3.

unfortunately the Downtown Plan of 2007 makes no move towards this goal. All the open lots Downtown are proposed to be infilled, which is an admirable goal, but the absence of a strategy for new public space is troubling. (

Figure 34) There are currently existing plazas Downtown, but they are enveloped by office buildings and are contributing little to the goal of an active, vital city. Richmond needs public squares that can provide the backdrop for activities and social interactions which are necessary for a truly revitalized downtown.

This thesis, by proposing new public squares, is a critique of the approach taken by the Downtown Plan. Analysis of the existing city will discern intervention sites that could best strengthen the existing pedestrian network and allow for strong interconnection between the new squares. Design explorations will test a variety of formal strategies for creating new urban spaces in an existing gridded downtown. The new square will be designed to serve as a catalyst for increased street life and resident density which is a crucial step for the revitalization of downtown Richmond. This thesis proposes an approach for Richmond that could be applicable to other similar cities in the U.S that are beginning to develop unbuilt and underutilized sites in downtown areas.

1. THE PUBLIC SQUARE IN AMERICA

Although the United States was founded and initially populated by European immigrants, public squares developed very differently from those in Europe. In order to fully understand the issues facing the design of public squares today, it is important to understand the many influences and traditions that have converged and interacted to leave us with our current legacy of public squares. This summary will first look at how public squares developed in America, beginning with Spanish, French and English colonial influences. A more detailed discussion of English town planning in the Maryland and Virginia Tidewater region is appropriate to consider for Richmond, VA. Next, the westward expansion of the gridiron plan and its implications for urban design will be explored, followed by the City Beautiful movement's reaction against the gridiron. The second section investigates why downtowns and public squares fell into decline during the post-war Modernist period and how American cities have rebounded during the past several decades, utilizing public squares as important components for their revival.

DEVELOPMENT AND INFLUENCES

Because North America was not widely settled until the Renaissance had taken a full hold over Europe, towns and cities developed in a much more orderly fashion than the medieval cities of Europe, which grew organically over the centuries without an overall formal order. Even during the medieval period, there was precedent for new towns that were laid out on a grid, a system for town planning that goes back to the Ancient Greeks. Different nations and cultures developed their own particular methods for gridiron town planning, so when European powers began to settle North America, a variety of strategies were implemented across the new continent. Of the major colonial powers, the English have had the most lasting impact on

American town planning, but the Spanish and French also left a legacy that has become a part of the urban landscape.

The Spanish

The Spanish were the first to establish a permanent settlement in the United States, at St. Augustine, FL in 1565. This was the first of many Spanish settlements across the Gulf States and into New Mexico and California. Their experience planning new towns led to the codification of a set of town planning regulations known as the Laws of the Indies. The laws had a broad scope, but for the purposes of this investigation, they included specific regulations for the main plaza, which became a staple of Spanish towns and cities in America. “It shall not be smaller than two hundred feet wide and three hundred feet long nor larger than eight hundred feet long and three hundred feet wide.”¹² The document went on to specify that the plazas should have a continuous arcade around all four sides. The treatises of Vitruvius and Alberti were likely sources for the Spanish planners, and in this way the ideals of Roman city planning, which were so influential in Europe, made their way to North America.

The French

The French were less concerned with permanent settlement than the Spanish, and instead focused on expanding their trading empire into the interior of North America. They established a set of trading posts which were eventually developed into towns and cities by those individuals granted trading rights. Unlike the Spanish, there was no uniformity to the layout of the French

¹²John William Reys, *The Making of Urban America; a History of City Planning in the United States*, (Princeton, N.J.: Princeton University Press, 1965), 29.

settlements.¹³ While there were no standard regulations for a plaza, public open spaces tended to develop at the centers of towns or near the fortification. The *place d'armes* was an important feature of Montreal, Quebec, and New Orleans. (Figure 3) While the French did not leave as lasting an impact on town planning as the Spanish, many cities contain features that we consider to be of French origin. The grand diagonal boulevard, *rond points*, and the strong axial treatment of important buildings, first introduced in Pierre L'Enfant's plan for Washington, D.C. of 1791, became more popular when French city planning ideas were reintroduced as part of the City Beautiful movement.



Figure 3: Aerial View of Jackson Square in New Orleans, LA
Source: Google

¹³ Reys, 56.

The English

Clearly the strongest cultural influence of the colonial period came from England, where most of the early settlers originated. They brought with them a tradition of public space that was quite different from the traditions of the Mediterranean countries such as France and Italy, where the piazza reached its fullest expression. The English tradition of public space remained generally agrarian and religious, with few significant developments of urban space before American colonization. Paul Zucker, an urban and architectural historian, suggests that this could have been due to the harsher northern climate and an emphasis on domestic life in England.¹⁴

When English settlers arrived in the early 17th century, they brought the idea of common land ownership with them, a right that was slowly being eroded in England. This became the ubiquitous New England village green. Colonists in New England formed small agricultural towns for defense and mutual support. The towns began to envelop, but not erase, the commons or village greens which came in many different sizes and shapes, based on topography rather than the city plan.¹⁵ Associated with the green or common was the public meeting house, which evolved out of the market building tradition of English towns. Unlike churches which were located around the periphery, the market building, which also served civil functions, was placed in the center of public squares, a tradition which continued in the form of the New England meeting house.

In the Tidewater region of Virginia and Maryland, towns developed slowly due to the nature of the plantation economy. Trade was largely conducted on a local basis from the individual wharfs of riverfront plantations. The state legislatures were interested in establishing towns, partially as a way to regulate and tax trade. In the late 17th century, laws were passed

¹⁴ Zucker, *Town and Square*, 5.

¹⁵ Michael Webb, *The City Square : A Historical Evolution* (New York: Whitney Library of Design, 1990), 116.

specifying the development of new towns, but slow growth and opposition from plantation owners led to the repeal of these acts.¹⁶

By the 18th century, towns were founded as the need arose or when the legislature was petitioned by private entrepreneurs seeking to develop land. The plans consisted of rudimentary grids that were “straightforward and unimaginative.”¹⁷ Public squares played only a small role in these plans, and because development was so slow, public squares laid out in an original plan sometimes failed to become established and were built over, as can be seen in Fredericksburg, VA. (Figure 4) Alexandria, one of the most prosperous cities in 18th century Virginia, was laid out on a simple grid, with a lone market square designated. (Figure 5) A focal point or pattern of open space was lacking, which, according to Reps, would have given the city a more successful appearance.¹⁸ This pattern became the norm across both colonies as new towns continued to be established by the growing population. Settlers began moving inland along major rivers, reaching their navigable limits and platting new cities, including Richmond in 1737. Here and continuing westward, settlers and speculators, seemingly oblivious to innovation in city planning elsewhere in the colonies, applied the elementary gridiron plan to the landscape, leaving a lasting impression on American cities.

¹⁶ John William Reps, *Tidewater Towns: City Planning in Colonial Virginia and Maryland* (Williamsburg, VA: The Colonial Williamsburg Foundation, 1972), 66.

¹⁷ *Ibid*, 198.

¹⁸ *Ibid*, 213.



Figure 4. Plan of Fredericksburg, VA, 1721. Parcels "A" and "B" were designated for the church and public market
Source: Reps, Tidewater Towns, 199.



Figure 5: Plan of Alexandria, VA, 1796
Source: Reps, Tidewater Towns, 210.

The design of colonial capitals however, did garner greater urban design considerations, as is seen most clearly in the designs for Annapolis, MD and Williamsburg, VA. Annapolis, laid out by Francis Nicholson, references the baroque city planning advocated by Christopher Wren, John Evelyn and others following the Great Fire of London in 1666. It makes use of large traffic circles, the “Public Circle,” where the state capitol now stands, and “Church Circle,” along with a London-style residential square. At Williamsburg, Nicholson again had the opportunity to make a significant impact on American city planning. Here Nicholson moves away from the Baroque idea of circles and diagonal streets in favor of an axial layout which terminates the wide primary street with public buildings. The governor’s palace faces a 200’ by 1000’ green along the town’s primary cross axis. Another market green provides a site for the courthouse, magazine, and church.

The influence of English town planning was clearly felt in the colonies. Colonists came from a variety of backgrounds and brought their respective traditions with regards to public space. We see most clearly the attention paid to the layout of public buildings within large open spaces in New England and the designation of entire blocks for public markets. By far the dominant street layout was the grid, as can be observed in almost every planned town in the colonies and moving westward. Perhaps more important for the future of American public squares than transported formal strategies, were the cultural attitudes that emphasized domestic life over public life. These combined with a largely agrarian economy meant that most cities did not become dense enough to support the kind of network of public squares seen in European cities of medieval origin.

The Gridding of America

As we see from the colonial influences, the grid as a city planning mechanism was firmly entrenched in American urbanism of the 18th century. This is no surprise, as the grid had long been used for planned cities, most famously by the Romans in the military castra that today form the core of many European cities. Variations on the strict grid were devised for cities such as Philadelphia, PA and Savannah, GA, but in general, the grid was applied in its simplest form, lacking the nuances which can give gridded cities incredible richness.

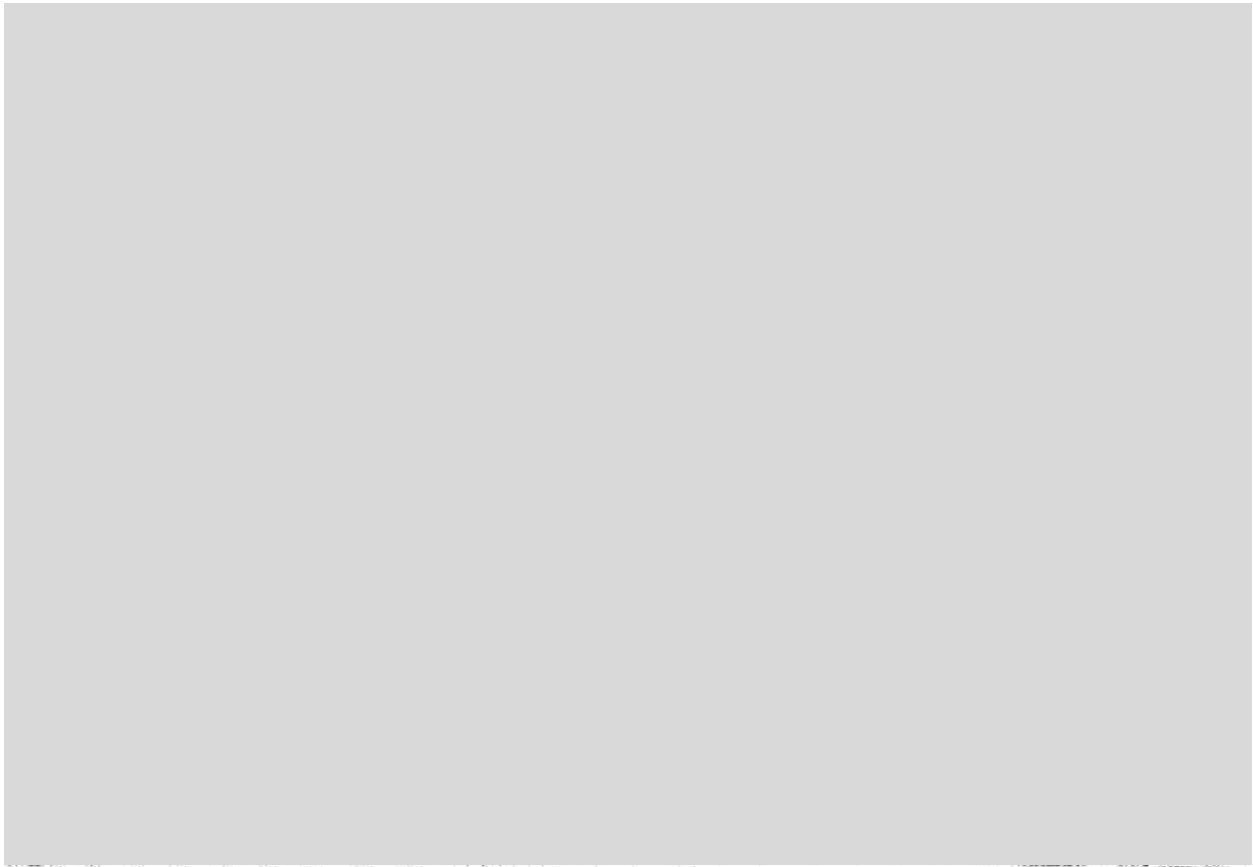


Figure 6. William Penn's plan for Philadelphia, 1683.

Source: <http://xroads.virginia.edu/~cap/penn/pnplan.html>

The grid's potential for the rapid plotting, sale, and development of land was well-understood by city planners, but the United States government saw the gridiron as a way to

develop the interior of the new country on a massive scale. In 1785 the Congress passed legislation that established a grid beginning west of the Ohio River, making it easy for the government to sell land to settlers moving west. The grid divided land into thirty-six square mile townships, which were broken down into thirty-six sections, which were then further subdivided by settlers and speculators for re-sale. This already-established grid very naturally then was adopted for towns laid out in these newly mapped regions. Any irregular, medieval characteristics that existed in New England towns were stamped out by the new grid, even if settlers came from New England. The impact of the 1785 grid is felt very strongly today in towns throughout the Midwest, where the township subdivision was strongest.

The gridiron plan has come to characterize almost every city in the United States regardless of geographic location, and it comes with many advantages. Gridded layouts simplify parcel divisions, provide good block shapes for building, and establish clear way-finding for visitors and residents. Steven Hurtt, Professor of Architecture at the University of Maryland, goes beyond the purely functional concerns to point out that the grid “ought to be recognized for the ideality that it represents.”¹⁹ But the rigidly applied grid has drawbacks when it comes to the creation of urban space. According to Hurtt, the gridded street form “is anathema to closure, dominance, and hierarchy and is the antagonist to locus and place.”²⁰ John Reps regrets that the gridiron plan “stamped an identical brand of uniformity and mediocrity on American cities from coast to coast.”²¹ Design options for public squares in particular are limited by the grid’s inflexible nature and accommodation for traffic flow. The tendency is to design a public square that takes up an entire block, and while these can be done very well, such a square bounded on

¹⁹Steven Hurtt, "The American Continental Grid: Form and Meaning," *Threshold: Journal of the School of Architecture, University of Illinois at Chicago* 2 (Oct 1983), 37.

²⁰ Ibid.

²¹ Reps, *Making of Urban America*, 314.

four sides by a sixty foot street will never achieve the kind of enclosure, hierarchy and connection to edges that occurs in the great squares of Europe where the car plays a minimal role.

The Courthouse Square

Williamsburg, VA was one of the first cities to have a site specified for a courthouse. In Virginia, courthouses were located centrally in their jurisdiction, and towns often sprang up around them because the courthouse became a common meeting place for the surrounding areas. The courthouse became an important object in the landscape, symbolizing the political values of the American people. Matthew Bell, Professor of Architecture at the University of Maryland, connects the American courthouse to the idealized “Renaissance church within a square” via the important replacement of the church with a secular courthouse emphasizing local government.²² With the extension of the grid across the country, towns in the Midwest left one square of their regular grid open for the development of the county courthouse. This courthouse square type is immediately recognizable and in some respects has reached a mythical, idealized status alongside the New England village green.

City Beautiful

Baroque city planning in the French manner existed in isolated examples in the United States in the 18th century, with Nicholson’s plan for Annapolis and L’Enfant’s plan for Washington, D.C., but it was not until the City Beautiful movement at the turn of the 20th century that baroque ideas really made an impact on American urban form. The 1893 Columbian Exposition in Chicago was the catalyst for the movement which was adopted by cities around the

²² Matthew Bell, "Novus Ordo Seclorum: The Country Courthouse as Object and Symbol." *Modulus* 23 (1995), 153-170.

country. Along with architecture of the Beaux Arts tradition, cities established new plans that utilized such concepts as diagonal boulevards and strong axial terminations at public buildings, design features that were impossible within a rigidly-gridded city. The human-scaled public square was less of a component of these plans than the broad, sweeping pedestrian mall and wide tree-lined boulevards. The movement was a re-awakening in this country that urban form could be something more than the monotonous grid. Cities such as Chicago developed dramatic, if unrealized plans, and Philadelphia actually developed part of a City Beautiful design that diverged entirely from William Penn's functional grid, sweeping northwest along a grand diagonal boulevard toward a new museum-temple on a hill. Other major cities with partially-realized City Beautiful plans include Cleveland, OH; Denver, CO; Sacramento, CA; and San Francisco, CA.

20TH CENTURY DECLINE AND REVIVAL

In the United States after World War II, the Modern Movement dominated the theory of architecture and urbanism. Ideas espoused by such iconic figures as Le Corbusier and Walter Gropius gained popularity in architectural education, which would have a lasting impact on American cities throughout the century. At the same time, the trend of urban depopulation spread around the country, fueled by a growing cultural shift toward suburban living. The downtowns of U.S. cities ceased to be the important centers they once were, and the public realm suffered as a result. In recent decades, there has been notable revival in downtowns as people have rediscovered the joys of urban living, enhanced by public squares.

The Impact of the Modern Movement

Le Corbusier's book, *The Radiant City*, laid out his vision for cities of the future that consisted of high-rise towers isolated in park-like green spaces. This reaction against turn-of-the-century industrial cities, with their unsafe and unsanitary working and living conditions, was so strong that important elements of traditional urban form were discarded as obsolete.

Le Corbusier was not necessarily opposed to the public square. He certainly advocated a dramatic increase in public space in general, but the dispersal of density would inevitably lead to the disappearance of the traditional urban square. Crucial for the success of public squares are good streets, which Corbusier was particularly opposed to. He wrote "Our streets no longer work. Streets are an obsolete notion. There ought not to be such a thing as streets; we have to create something to replace them."²³ He goes on to say that the street "is no more than a trench, a deep cleft, a narrow passage. And although we have been accustomed to it for more than a thousand years, our hearts are always oppressed by the constriction of the enclosing walls."²⁴

In the U.S. this anti-street attitude manifested itself with the increasing segregation of the automobile and pedestrian. Cities adapted to accept America's love affair with the automobile by redeveloping their downtowns to include extensive parking lots and garages, which continue to be a detriment to the vitality of urban streets everywhere in the country. No matter how much city centers tried to adapt to the automobile, downtowns could not compete with the increasing reality of Le Corbusier's proposed "demolition of the center."²⁵ As single-use office towers moved into central business districts, this demolition became reality as entire blocks of

²³ Le Corbusier, *The Radiant City*, quoted in Cliff Moughtin, *Urban Design: Street and Square* (Oxford; Boston: Butterworth Architecture, 1992) 128.

²⁴ Le Corbusier, 1929, quoted in Geoffrey Broadbent, *Emerging Concepts in Urban Space Design* (London; New York: Van Nostrand Reinhold (International), 1990), 129.

²⁵ Le Corbusier, *The Radiant City*, quoted in Moughtin, 278.

traditional urban fabric were razed for new buildings which did not provide active street frontages.

Cities soon lost their preeminent role as retail centers, as large stores moved from the traditional downtown shopping street to suburban malls surrounded by parking lots. Cities reacted by attempting to bring aspects of the suburban shopping mall to downtowns with the construction of Modernist megastructures that were often unsuccessful at preventing downtown decline and became a detriment to street-level activity, which is the fuel of active public squares.²⁶ Urban renewal policies such as these, combined with the unstoppable wave of flight to the suburbs and the dispersal of activities resulted in downtowns with resident densities that were insufficient to support retail and services, a compounding problem that left downtowns with extensive “dead spaces,” filled with parking lots, vacant buildings, and blank-walled office buildings.²⁷

The Revival of Downtowns and Public Squares

Beginning in the 1970's, U.S. cities began emphasizing the revitalization of downtown cores. Many new parks, pedestrian malls, and squares were built or renovated and there was a generally increased interest in city centers, with greater numbers of people using public spaces and an increasing trend of outdoor dining.²⁸ A method used by zoning boards to enhance the public realm was the administration of floor area bonuses for developers who provided publicly-accessible plazas. This method was widely adopted after being introduced in New York City in 1961 and remains a part of most city zoning ordinances, including Richmond's. While this did

²⁶ Moughtin, 278.

²⁷ Kent Robertson, “Downtown redevelopment strategies in the United States: an end-of-the-century assessment,” *Journal of the American Planning Association* 61, <<http://www.proquest.com>>

²⁸ William Whyte, *City*, (New York: Doubleday, 1988) 2.

result in many more plazas in downtown business districts, they rarely included active uses that characterize the best public squares.²⁹ Through the development of enclosed atria and galleries, retail, restaurant and entertainment uses began returning to city centers. These new areas seem to be part of the public realm, but the private owners tend to keep out undesirables and monitor activity closely, which is anti-ethical with the values of true public space. These initial responses to the increased interest in downtowns had drawbacks that limited their effectiveness as catalysts for wider downtown revival.

While private development of semi-public plazas and enclosed shopping spaces continues in downtowns, city governments have initiated projects which emphasize the traditional, city-owned public square. Portland Oregon developed a civic square in the early 1980s which is now much beloved by the people of Portland and is part of the city's enhanced pedestrian and transit network.³⁰ In the past decade, public squares have been designed that have directly led to economic redevelopment and a return of residents and pedestrians to downtowns. Examples include Detroit's Campus Martius, a new public square designed in the heart of Detroit's struggling central business district which, within its first five years, spurred the construction of 2.24 million square feet of office and retail space and attracts more than 2 million visitors per year.³¹ In Houston, the design of a new park in an area of downtown strewn with surface parking lots has led to the development of some of the first new apartment housing in Houston in decades along with a new hotel, retail, and office uses.³² The Project for Public Spaces, an advocacy and

²⁹ Robertson, "Downtown redevelopment strategies in the United States."

³⁰ Jan Gehl and Lars Gemzoe, *New City Spaces*, (Copenhagen: The Danish Architectural Press, 2006) 60.

³¹ ULI document

³² JoAnn Greco, "City parks, bringing urban centers back to life," *Washington Post*, July 30, 2010
<<http://www.washingtonpost.com/wp-dyn/content/article/2010/07/30/AR2010073003588.html>>

design group, claims that public spaces can help downtowns attract and retain tenants, generate revenue, increase tenant and employee satisfaction, and combat crime.³³

SUMMARY AND IMPLICATIONS

The essential difference between U.S. and European public squares is explained by the distinctly different development of town planning in this country and the early imposition of the grid. The most important squares typically formed around civic buildings like the courthouse rather than religious buildings or markets. Gridded layouts limited the design possibilities of these central squares. Cities were also relatively young and not fully developed when the tenets of Modern architecture and urbanism came to prominence, which proved to be the death-blow for the continued development of active, mixed use downtowns. Suburbanization affected Europe as well as the U.S., but European cities with their much longer histories and cultures of urban living, were able to retain downtown residents, unlike most U.S. cities. While European precedents present enticing images, we must be careful to extract design principles that are relevant to our time and place. Certain aspects of the great squares of the past simply cannot be replicated in the modern city, but they can inspire a vision for the central role that modern public squares can strive to achieve.

The gridded city plan has distinct implications on the design possibilities for public squares in the U.S. today. The traditional American square can be characterized by its occupation of an entire city block with four streets surrounding it. This is the simple, almost inevitable formal response for squares, and while there are good and active squares that fit this typology, they do not take direct advantage of the activities associated with the enclosing building facades,

³³ Project for Public Spaces, “How Public Spaces Can Boost Building Performance,”
<<http://www.pps.org/reference/bldgperformance/>>

which are separated from the square by streets. Disadvantages to the gridded layout, as discussed by Hurtt, point to the challenges of designing spatially dynamic squares within a rigidly gridded street system.

Today the U.S. is facing the consequences of the vast Modernist experimentation with the nature of cities. Suburbanization proceeds at a rapid pace, so downtowns must strive to become a viable alternative to suburban sprawl. Traditional urbanism in new construction projects has made a comeback, driven by advocates of urban design and market forces which have recognized the economic advantages of active street frontages and pedestrian activity. As people are beginning to return to downtowns, cities need to look to public squares as a crucial ingredient for a revitalized public realm that can help draw more people back to urban living.

2. THEORIES AND PRINCIPLES

Theoreticians and practitioners have speculated on the form of urban space since the time of Vitruvius. They have written rules and searched for ideal forms, but today's cities are such complex organisms that it is not possible to devise one set of criteria that will result in the ideal public square. Instead, principles that have been set out at different points in history for different cities must be synthesized and distilled into a new context in a new time. The following theorists and their ideas about urban spaces are categorized, after Roger Trancik, into figure-ground theory, linkage theory, and place theory.³⁴

FIGURE GROUND THEORY

Figure-ground theory is best symbolized by the 1748 map of Rome produced by Giambattista Nolli. In it, Nolli uses poche to indicate the solid outline of buildings, leaving the streets and squares white. Additionally the public interior space of important buildings, mostly churches, is rendered the same way as the squares, as if the interior public space flows unimpeded into the public realm of the street. Because the solid of the buildings is greater than open space, the map emphasizes the figural nature of the public spaces. This contrasts with the modernist concept of space where the building is the figural object.

³⁴ Roger Trancik, *Finding Lost Space : Theories of Urban Design* (New York: Van Nostrand Reinhold, 1986), 97.



Figure 7. Nolle Plan of Rome, 1748

Source: Stefano Borsi, *Giovan Battista Nolli: Nuova Pianta Di Roma, 1748* (Rome: Officina Edizioni, 1994)

Relationship of solid to void becomes the driving factor of figure-ground analysis. The space between buildings is recognized as the “medium of the urban experience,”³⁵ Trancik discusses urban solids (institutional buildings, the field of blocks, and edge buildings) and urban voids (entry foyers, inter-block voids, network of streets and squares, parks and gardens, and linear open space), condensing figure-ground theory into the manipulation and organization of these two elements of urban space.³⁶

Camillo Sitte, referred to by some as the father of urban design, was a theorist interested in the figure-ground characteristics of urban space. He was writing at the end of the 19th century

³⁵ Ibid, 104.

³⁶ Ibid, 106.

to criticize what he saw as the deteriorating standards of urban spaces in Germany and Austria. Too much emphasis was placed on issues such as the flow of traffic, water and sewage at the expense of what he termed the artistic design of cities. He urged the consideration of urban design beyond the two-dimensional plan to include the massing of buildings in three dimensions, and that public squares should maintain appropriate human scale.³⁷ Other principles of squares that Sitte advocated include keeping centers free of objects, maintaining strong spatial enclosure, and considering the relation between square size and building height.³⁸ His plan for the redesign of Vienna's Ringstrasse displays his interest in these principles. (Figure 8) Sitte's ideas did not have a great impact in the United States initially, but were revived in the work of Leon Krier, Rob Krier, and Colin Rowe, among others.

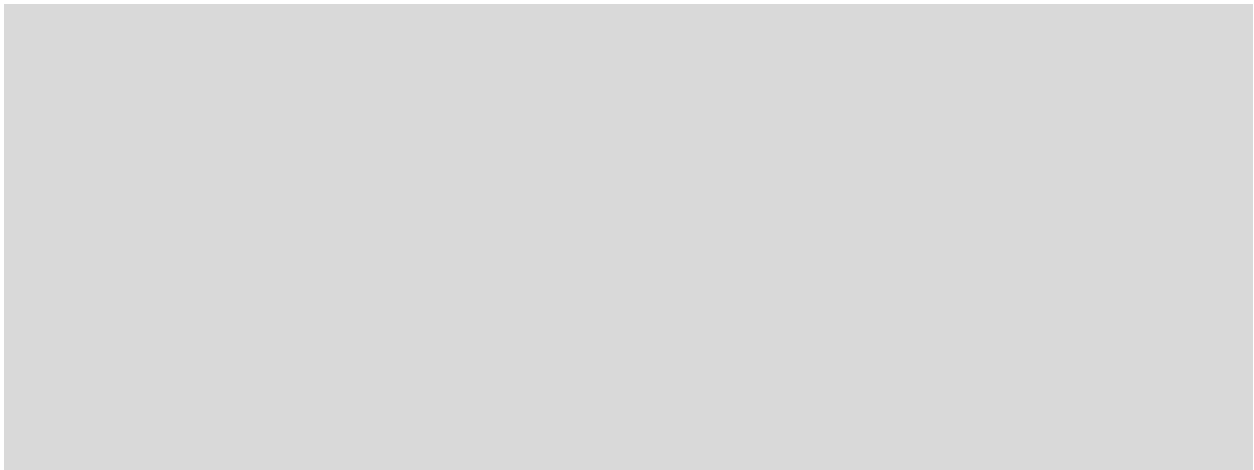


Figure 8. Plan for the completion of the Ringstrasse in Vienna, Camillo Sitte
Source: Collins and Collins, *Camillo Sitte: The Birth of Modern City Planning*, 295.

Leon Krier was among a group of architects whose work was a reaction against the perceived failure of Modernism. Krier became very interested in the traditional city and its

³⁷ George R. Collins and Christiane C. Collins, *Camillo Sitte: the Birth of Modern City Planning* (New York: Rizzoli, 1986) 119.

³⁸ Camillo Sitte, *City Planning According to Artistic Principles*, trans. George R. Collins and Christiane C. Collins, in Collins and Collins, *Camillo Sitte: The Birth of Modern City Planning*.

composition, for which the “size, pattern, and orientation of the urban block [was] the most important element.”³⁹ He is particularly interested in the placement of public buildings within the repetitive fabric of a city, considering the artistic design of public space. Public space for Krier, as in the Nolli Plan, consists of figural rooms which provide “choice locations for all things public.” In many of his exploratory designs, notably that for *Atlantis*, Krier displays an interest in formally planned and layered public squares that maintain a sense of irregularity and a strong scenographic character.

A central aspect to Krier’s urban theory is that of the urban quarter. His vision is for this urban quarter to become a small city within a city of no more than 600 meters in diameter.⁴⁰ A central square is a requisite feature of each quarter with an organized, hierarchical system of streets and squares that need not be geometrically regular. He proposes that the size of blocks decrease towards the center of these quarters so that the area around the central squares has a greater feeling of centrality and transparency, providing more street frontage and intersections with the square. In order for this idea of a walkable urban quarter to succeed, Krier suggests that it be inhabited by 10,000 residents.⁴¹

³⁹ Ibid, 102.

⁴⁰ Leon Krier, *Architecture: Choice or Fate* (Windsor, Berks, England: Andreas Papadakis, 1998) 128.

⁴¹ Ibid.

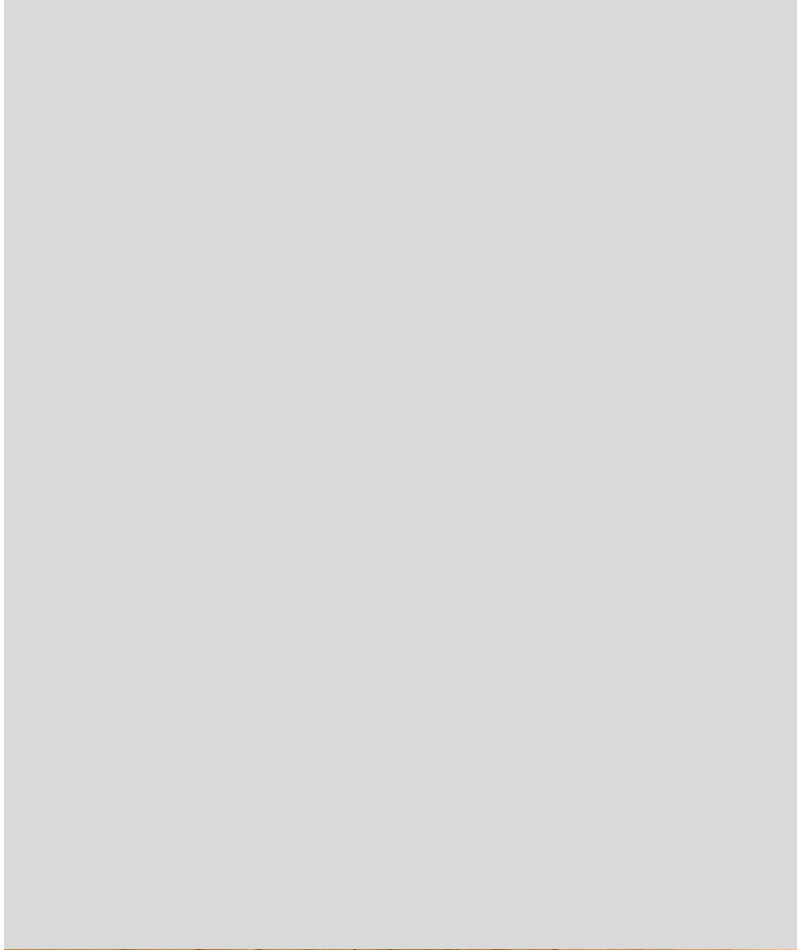


Figure 9. Leon Krier, *Atlantis*, 1988

Source: Broadbent, *Emerging Concepts in Urban Space Design*, 337.

Rob Krier's detailed and rigorous study of public squares explores the wide variety of spatial design possibilities for squares, distilling all squares into three formal categories of the square, circle, and triangle.⁴² He views the city as being composed essentially of the system of streets, squares, and other open spaces.⁴³ His project for Stuttgart illustrates how squares designed in the tradition of European urbanism can be incorporated into the modern city. Along with Sitte, Krier looks admiringly at medieval squares but accepts that their irregularity and eclectic nature

⁴² Rob Krier, *Urban Space*, (New York: Rizzoli, 1979), 22.

⁴³ Geoffrey Broadbent, *Emerging Concepts in Urban Space Design* (London; New York: Van Nostrand Reinhold (International), 1990), 193.

cannot be replicated through modern planning and that we must look elsewhere for formal inspiration.⁴⁴

The work of Colin Rowe, exemplified by the products of the Cornell Urban Design Studio beginning in the 1960's, was another reaction against the Modernist city planning of Le Corbusier and his followers. Rowe began to look at the city through the method of the figure ground drawing and began to critique the object building fixation of modern architecture. A theory emerging from the studio, Contextualism, was the "attempt to derive architectural-urbanistic form from context, generally one of physical form..."⁴⁵ Rowe, along with Fred Koetter, also pioneered the ideas of Collage City in which the concept of composite buildings were discussed as "both figure and ground, independent of but attached to their contexts."⁴⁶ The strategy of a composite building uses the complex figure of the building to create and define multiple public spaces that fulfill various urban obligations.

Another concept emerging from Rowe's studio, Collision City, refers to the locations in urban fabric where different grids converge, often forming misalignments and awkwardly shaped plots of land. These types of spaces are common in U.S. cities, and they provided the opportunity to establish hierarchal spaces through the overlapping of the intersecting fields.⁴⁷ Through the studio investigations, "it became clear that the city required both figure and texture, object and context, the ideal and the circumstantial."⁴⁸

⁴⁴ Ibid, 31.

⁴⁵ Steven Hurtt, "Conjectures on Urban Form: The Cornell Urban Design Studio 1963-1982," *Cornell Journal of Architecture*, no. 2 (Oct 1983, 1983), 55.

⁴⁶ Ibid, 61.

⁴⁷ Ibid, 68.

⁴⁸ Ibid.

LINKAGE THEORY

According to Trancik, linkage theory involves the establishment of a system of connections between spaces in a city. It places emphasis on movement and infrastructure over the abstract spatial definition of figure-ground theory. Aspects of this theory were popular in the failed Modernist planning of the 1950s and 60s that emphasized the megastructure and imposed movement systems, but the principle of linkage is still very important today and has broader applications, as pointed out by Fumihiko Maki:

Linkage is simply the glue of the city. It is the act by which we unite all the layers of activity and resulting physical form in the city . . . urban design is concerned with the question of making comprehensible links between discrete things. As a corollary, it is concerned with making an extremely large entity comprehensible by articulating its parts.⁴⁹

Kevin Lynch, a very influential theorist on urban design writing in the 1970s, made important contributions to our understanding of how cities need strong connections, or “paths,” between important locations, or “nodes,” to give the city legibility and a recognizable overall pattern.⁵⁰ He promotes cities that permit wayfinding through an ordered environment that serves as a frame of reference. It is not just about the discrete space created in the fabric, but rather how one moves between these spaces that gives the city its vibrant image. Linkages between public squares play a key role in this legibility of the city.

Lynch describes five elements of urban form—paths, edges, districts, nodes, and landmarks—which could be integrated into an approach for public squares within a network of public space. Squares can be located along major existing paths and edges in the city to provide spatial relief and take advantage of pedestrian and vehicular flows. The experience of a city is enhanced by unique districts, which can be strengthened through a public square which could

⁴⁹ Fumihiko Maki, quoted in Trancik, 106.

⁵⁰ Kevin Lynch, *The Image of the City* (Cambridge, MA, MIT Press, 1960), 3.

serve as an anchor and unifying space. The important nodes of a city, where people gravitate towards because of transit and the concentration of activities, should have an associated public square that could be anchored by important landmarks. Lynch identifies the crucial ingredients for the creation of a strong, legible network of linked public spaces which can give a city its unique identity.

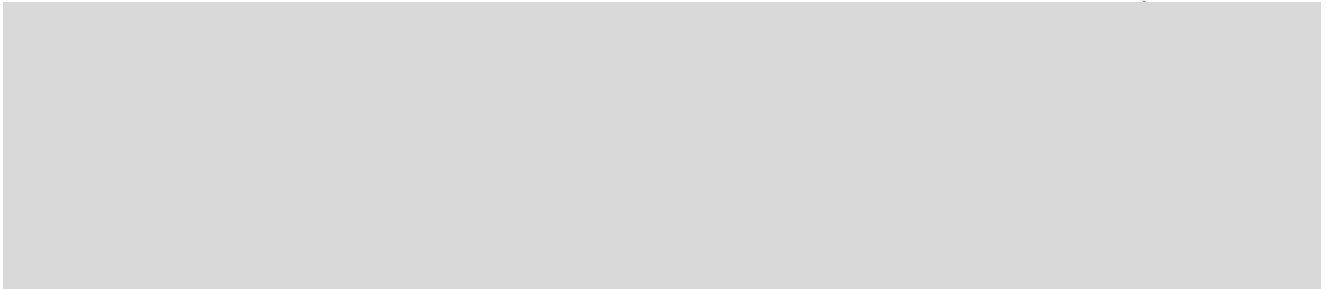


Figure 10. Kevin Lynch urban elements

Source: <http://adashofdesign.wordpress.com/tag/kevin-lynch/>

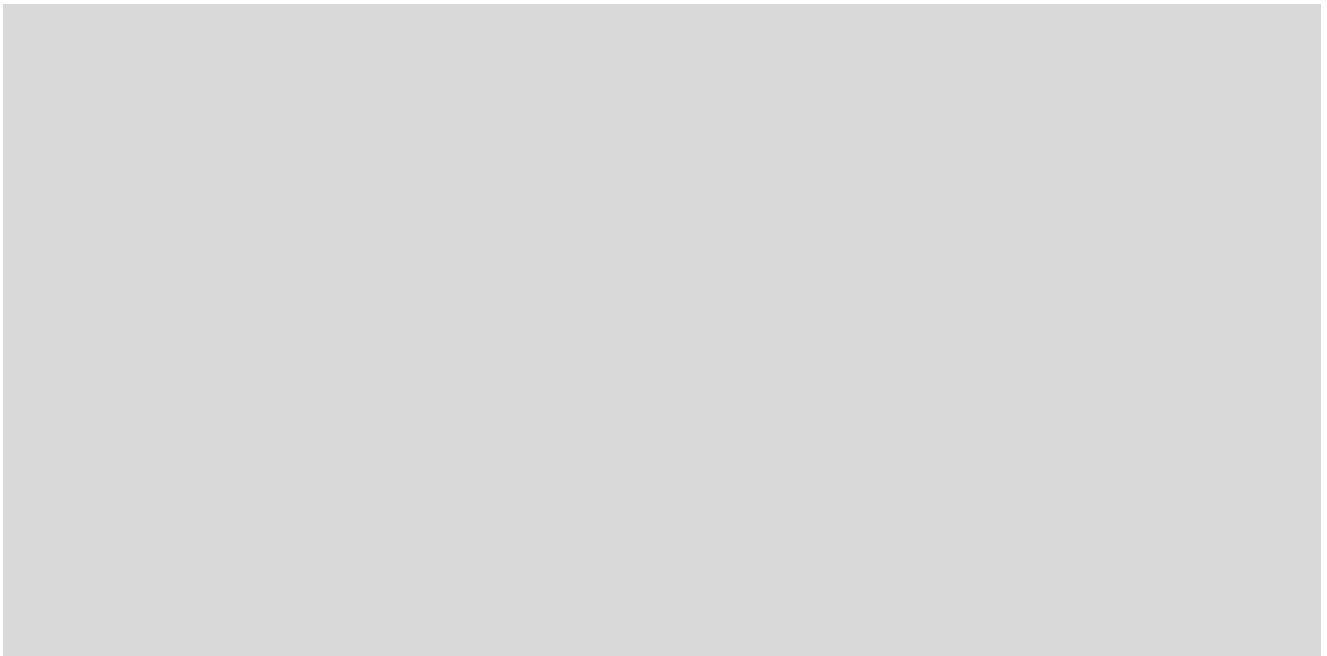


Figure 11. Lynch urban analysis of Boston

Source: Lynch, *The Image of the City*, 19.

PLACE THEORY

The third category of urban space theory, “place theory,” deals with the character and history of a space and the way in which people experience it. According to Trancik, “If in abstract, physical terms, *space* is a bounded or purposeful void with the potential of physically linking things, it only becomes *place* when it is given a contextual meaning derived from cultural or regional content.”⁵¹ Edmund Bacon discusses the essential nature of place in conjunction with formal aspects of square design. “It is one thing to delimit space by structural devices such as walls. It is quite another to infuse the space with a spirit which relates to the activities that take place in it and which stirs the senses and emotions of the people who use it.”⁵²

In order for an urban space to have a strong sense of place, it requires, quite simply, people to be present and using it. The lack of people was the problem with many new public squares and plazas of the mid-20th century, which continues to this day. In New York City, William Whyte and his team of researchers tried to better understand why some downtown plazas were far more successful than others in terms of their daily utilization.⁵³ This sociological approach ignored spatial and compositional aspects of the plazas and instead searched for physical explanations for individual behavior. Through intensive observation of particular plazas, Whyte was able to extract important factors that give plazas life and vitality, including adequate seating, varied solar conditions, strategic harnessing of wind, enclosing and shade-providing trees, and accessible water features. These factors strongly affect the specific character of individual squares, and must be seriously considered by an urban designer.

Kevin Lynch’s work overlaps with place theory when he discusses the imageability of cities. That image that every citizen has is “soaked in memories and meanings.” Lynch is trying

⁵¹ Trancik, 112.

⁵² Edmund Bacon, *The Design of Cities* (New York: The Viking Press, 1967) 18.

⁵³ William Whyte, *The Social Life of Small Public Spaces* (Washington, D.C.: The Conservation Foundation, 1980)

to understand how this mental image is established visually and how his five elements of urban form can work within the city give it individual identity.

Today, the Project for Public Spaces, founded by William Whyte, provides an important service to cities seeking to revitalize existing public spaces and squares. The emphasis is not on the architectural enclosure or connections to other parts of the city, but on the activities and people that give public squares life and vitality in the 21st century city. They call their approach “Placemaking,” which “involves looking at, listening to, and asking questions of the people who live, work and play in a particular space, to discover their needs and aspirations.”⁵⁴ Their four conceptual divisions of place, Uses & Activities, Access & Linkages, and Comfort & Image are useful for thinking about the wide range of factors that contribute to the creation of a successful place.

SUMMARY AND IMPLICATIONS

These three areas of urban space theory present important concepts for the design of public squares. Each theoretical category emphasizes different qualities that must all be considered for the design of successful, active public squares.

From figure ground theory, we understand the importance of the spaces between buildings as formed by the surrounding and enclosing urban fabric. Figure ground analysis reveals the good qualities of varied and irregular spaces, but designers must be cautious in how forms derived from medieval squares are adapted to the present. Leon Krier’s ideas about the small, walkable urban quarter with a central square are attractive, but require densities rarely achieved in mid-size American cities.

⁵⁴ Project for Public Spaces, “What is Placemaking?”

Linkage theory emphasizes the connections and flows of people that weave through the city fabric, binding it together and giving unity to the city. Public squares are a part of a network of public space that serves to make a city imageable and well-ordered. A proposed network of public squares should seek to integrate with the existing public space in order to both strengthen the existing major paths and suggest new ones.

Place theory is most interested in the people who use public spaces and how the uniqueness of a place can be expressed through the elements of urban form. Important studies on what makes people spend time in public squares have revealed the importance of both physical and psychological comfort. Place theory is very relevant for American downtowns which suffer from a lack of activities which are crucial for the establishment of great public squares.

DESIGN PRINCIPLES FOR PUBLIC SQUARES

Architects and scholars have written about the factors that make for good public space going back to the time of Vitruvius. These factors are in many cases widely accepted and in some cases self-evident, based on the large number of excellent public square precedents. All of them are suggestions of design possibilities, not hard and fast rules. They are presented here as a set of guidelines, organized thematically.

Relationship to Street

- Squares should have a clear and simple relationship with the streets without significant changes in grade.
- There should be a definite boundary between the square and street.
- Buildings can serve as markers of entry, defining access points.
- The catchment area in which people arrive in a square should receive special design attention.

Size and Shape

- According to Sitte, average dimension for squares in historic cities is 140m x 60m, but exact rules are not greatly valuable.⁵⁵
- Squares should not be so large that activities and people become undistinguishable. The social field of vision is limited to 100m.⁵⁶
- Irregularly shaped spaces provide sense of intrigue and discovery as well as subspaces for alternative uses.
- “When in doubt, leave some yards out.”⁵⁷

Spatial Enclosure

- A strong sense of enclosure is crucial for public squares.
- The rule of 3/5 enclosure can be used as a guide, and as a way to form legible subspaces that do not detract from overall definition of the primary space.⁵⁸
- Strong enclosure provides legibility to the space and a feeling of visual coherence.
- Background buildings are very important, forming the “ground” for the “figure” of the space.
- Buildings should form a continuous surface, acting as the walls of a room.
- The consistent height of enclosing buildings implies the ceiling of the space.
- The corners of squares are doubly important for the sense of enclosure and should not be punctured by wide streets.

Edge and Center

- Building edges that directly engage squares are superior for bringing activities into the common space.⁵⁹

⁵⁵ Sitte, *City Planning According to Artistic Principles*.

⁵⁶ Gehl, *Cities for People*, 35.

⁵⁷ *Ibid*, 59.

⁵⁸ Childs, 122.

⁵⁹ Gehl, 75.

- An edge zone to the square, or frame, is an important place where people tend to congregate to sit and observe. The frame edge contributes much to the liveliness of a square.
- A central field can be either paved or planted, but its liveliness is an important aspect for the success of a square.

Climate Moderation

- For squares to be useful and active longer throughout the year, they must implement strategies for moderating adverse climactic and weather conditions.
- A southern exposure and good solar access provides warmer areas during cooler times of the year.
- Shading devices, including trees, awnings, arcades, and open air pavilions, should be used to provide places of retreat from the sun during warmer months.
- Covered areas also allow for the continued occupation of the space during rain.
- Careful attention should be paid to wind. Hedges and fences can provide localized shelter when it is undesirable. An overall enclosure by low-rise buildings can also serve to moderate wind.
- In colder weather, outdoor eating can continue with the use of partially enclosed café areas, heating lamps, and warm chairs.

Activities

- People and activity in a square will draw more people.
- The best squares are hubs of activity twenty-four hours a day and seven days a week.
- Activities which cause people to stay in squares longer should be encouraged.
- Outdoor dining is an important component of almost all successful squares.
- Ground level functions in buildings should provide variety and interest for the pedestrian.
- The activities of a square should be mutually supporting
- Seating is a critical component of square activity. It should be located in protected locations with a good microclimate and view out over the space. Seating areas should provide for the full range of interpersonal distances.

- People need a large quantity of seating choice, but too many empty seats can make a square appear dead. Instead, many surfaces such as ledges and stairs can be made seats to increase the amount of available seating while avoiding a surplus of fixed benches.⁶⁰
- Movable seating is the ideal choice so that people can choose exactly where they want to sit.

Character

- A square should elicit a strong sense of place and feeling of historical continuity.⁶¹
- The design of a square should give it a uniqueness and unambiguous theme so that it is memorable.⁶²
- The sensory qualities of a square should be considered, particularly that of the physical and aural qualities of water.
- Public squares must feel safe, which is best accomplished by “eyes on the street,” which include people in the space, on the sidewalks, and in the buildings adjacent to the square. An adjacent resident population provides important passive surveillance at night and on weekends
- Nearby residences should be encouraged to add diversity to the square’s use and the associated retail and eating options.

Access

- It is important to consider drivers, but pedestrians should be given priority in the design of public squares.
- Public transit options should be provided to make the square accessible to a wide range of people of all incomes and abilities.
- The intrusion of cars should be limited by decreasing the number of edges occupied by automobile streets.
- The entrances to parking should be located in the square.

⁶⁰ Whyte, 29.

⁶¹ White, 28.

⁶² Ibid, 26.

Linkages and Network

- The public realm of cities should comprise of compact, direct and logical routes and a clear hierarchy of spaces.
- The links between spaces should have clear visual characteristics and important streets should be distinguished from less important ones.⁶³
- Squares should be woven into a city's path system and serve as part of a coherent city-wide place network.⁶⁴
- A variety of squares provides different spaces for a full range of social interactions.
- An average acceptable walk is 1/3 of a mile, but an interesting route can cause people to walk farther.⁶⁵

This list demonstrates the wide range of issues that must be considered for the design of public squares. There is an almost equal balance between the formal and compositional aspects and the functional and social aspects. Clearly there is interdependence between the principles which must be understood. For this thesis, all of these principles will be considered and weighed against the real circumstances of the sites in Richmond so that they can be applied and synthesized in designs for new public squares.

⁶³ Gehl, 101.

⁶⁴ White, 28.

⁶⁵ Gehl, 121.

3. PRECEDENT ANALYSIS

The study of precedents in this section is organized to focus on two issues: the compositional and formal features of public squares and precedents of gridded cities and their networks of public space.

PUBLIC SQUARES

History provides a vast number of potential precedents for public squares. When making a list, however, most of the great public squares that come to the mind of an architect are located in Europe and have developed out of a completely different set of historic, cultural, and social forces compared to those in the U.S. Because Richmond is representative of a typical mid-size, gridded American city, the detailed study of precedents was limited to some of the great examples of American public squares.

Pioneer Courthouse Square

Location: Portland, Oregon

Date: 1982-84

Type: Courthouse Square; Central Square

Architects: Martin/Soderstrom/Matteson of Portland

Form

- Fully enclosed with object building dominant - less enclosed
- Enclosure of row of columns and cafe building

Functions

- Transportation hub for downtown
- Active land use around square - retail and restaurants
- Different zones invite various activities
- Many programmed activities

Axial Relationships

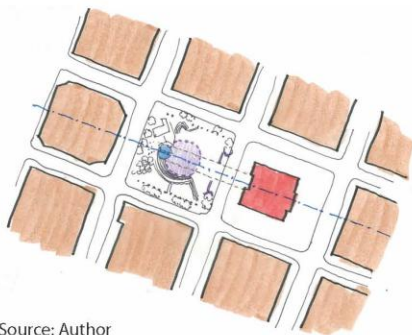
- Central field and fountain located on the axis of the courthouse
- Space along axis kept open so that the courthouse has a strong presence in the square

Edge

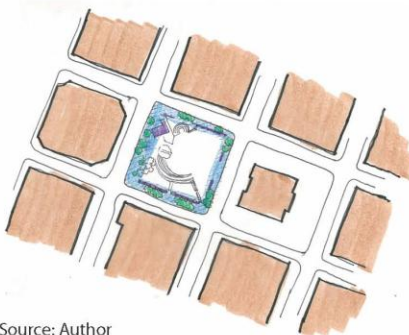
- Square has strong edge, defined by trees and columns
- Edge provides transition from street and provides many seating locations from which to observe square

Civic Presence

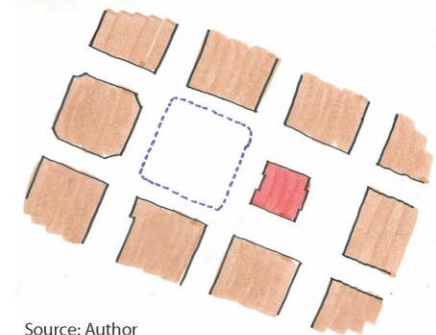
- Courthouse an object building, contrasting with continuous fabric
- Removed from the square itself, separated by street



Source: Author



Source: Author



Source: Author

Figure 12. Pioneer Courthouse Square; Portland, Oregon

Rockefeller Plaza

Location: New York City

Date: 1930-36

Type: Central Square

Dimensions: 230' x 140'; streets 30' wide

Form

- Sunken plaza fronting RCA building
- Framed by two 6 story buildings
- Linked to 5th Ave. by landscaped garden
- Height of smaller 8-story buildings gives streets and square a more human scale - a transition to the RCA building

Functions

- Shopping and entertainment destination
- Ice skating rink in sunken plaza during winter
- Cafes on lower level
- Sunken plaza serves as a stage as people look down on activity from above - not usually a model that works for public squares
- Landscaped "Channel Gardens" change with the seasons

Source: Ezra Stoller, ARTstor Collection, www.artstor.org

Source: Robert Gatje, *Great Public Squares*.

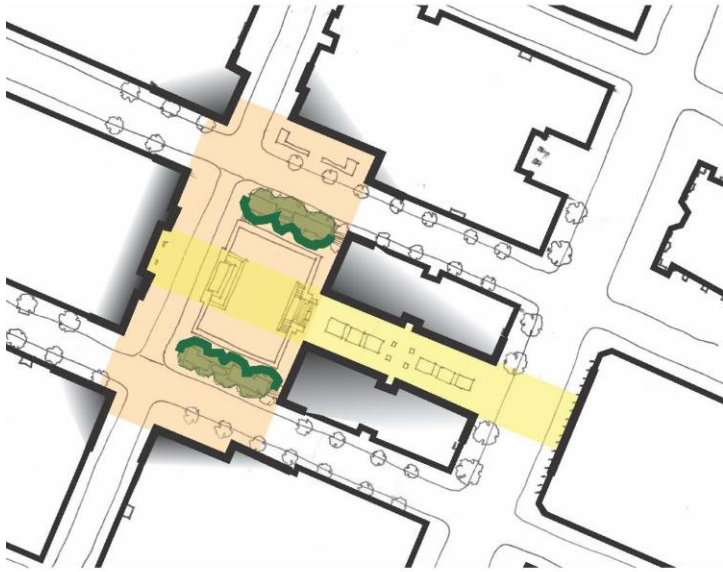
Figure 13. Rockefeller Plaza; New York City



Source: Author

Axial Relationships

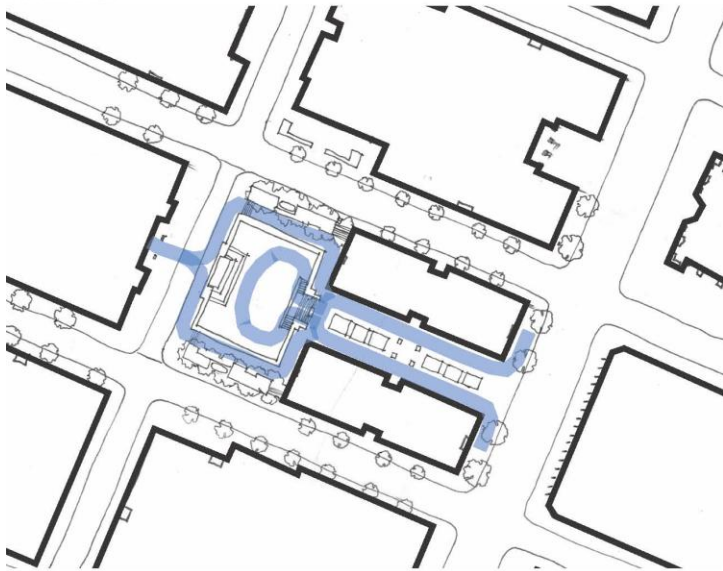
- Strong major axis from RCA building linking to 5th Ave.
- Axis emphasized by two framing buildings and landscaping/sculptures
- Sunken plaza has less dominant cross-axis - buildings screened by trees
- Smaller buildings symmetrical and provide opportunity for public passages on cross-axis



Source: Author

Enclosure

- Streets on three sides of square - street on west side closed
- Less dominant enclosure to north and south supplemented with trees
- Layering of enclosure around sunken plaza with trees and buildings



Source: Author

Promenade

- Smaller buildings establish the main promenade on the primary axis
- Single stair leads down into sunken plaza

Figure 14. Rockefeller Plaza Diagrams

Market Square

Location: Pittsburgh, PA

Date: Renovation 2009-2010

Type: Central Square, Market Square

Dimensions: 250' x 250'

Form

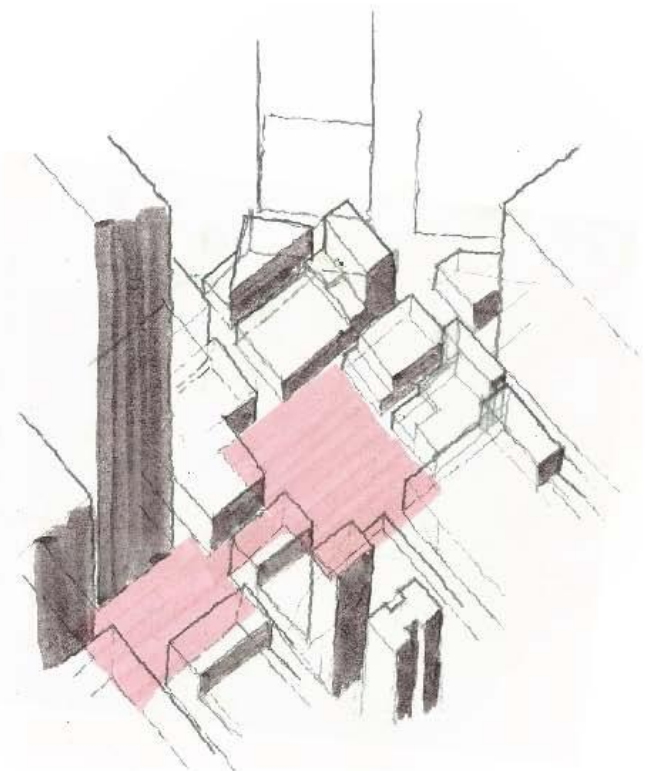
- Square with streets entering on center
- Traffic rerouted around the perimeter and slowed down

Functions

- Restaurants and services fronting square
- Center with tables and a stage
- Weekly farmer's market



Source: Author, from Google Earth



Source: Author

- Low rise buildings fronting on square with taller buildings and skyscrapers on the next block
- Design simple, maximizes flexibility for weekly market and scheduled events
- No curbs, which emphasize the pedestrian focus
- Forms part of a linked system with office plaza to south

Figure 15. Market Square; Pittsburgh, PA

Miller Park Plaza

Location: Chattanooga, TN

Date: 1988

Type: Civic Square

Dimensions: 270' x 150'

Architect: Koetter-Kim & Associates

Form

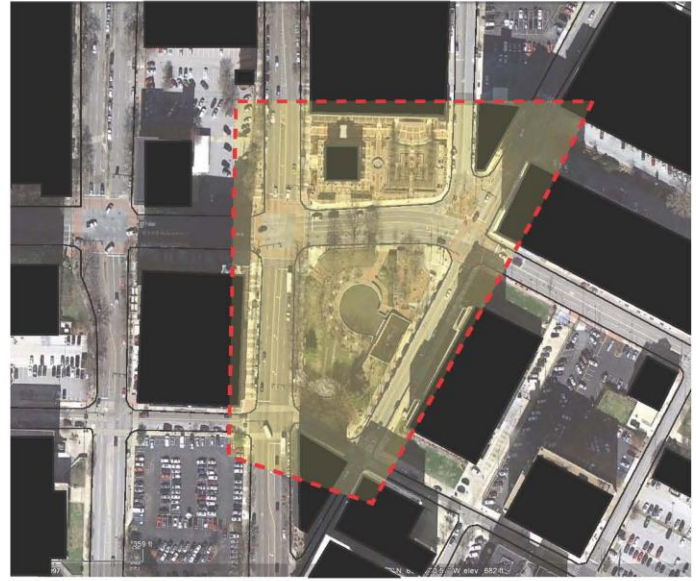
- Square creates space at a grid collision
- Surrounding mixed-use buildings with open loggias
- Pavilion as object

Functions

- Pavilion a multi-purpose event space
- Stage built into northern liner building
- Shaded seating areas



Source: Bing Maps

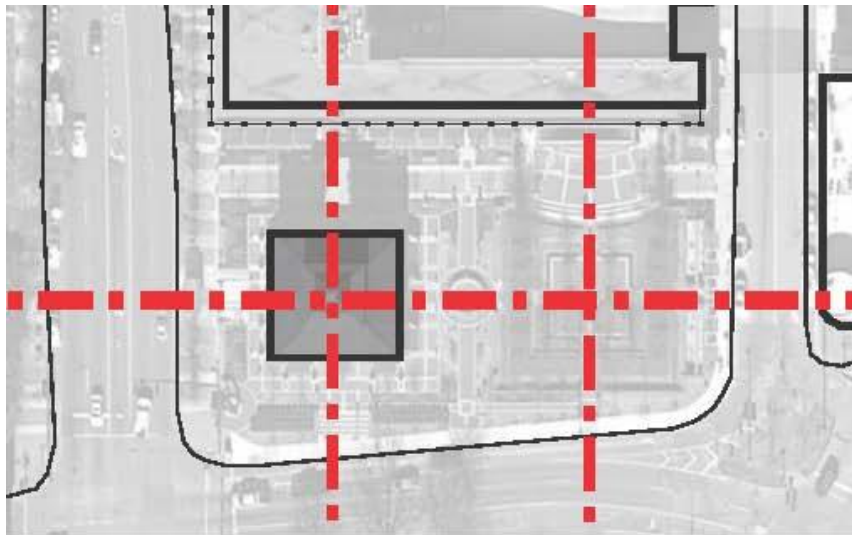


Existing Conditions

Source: Author

- Object building anchors space - the figure against the ground of a liner building
- Strong axial organization
- Thresholds into space from the north - arch and tower
- Project set wider urban design guidelines which have only been partially executed

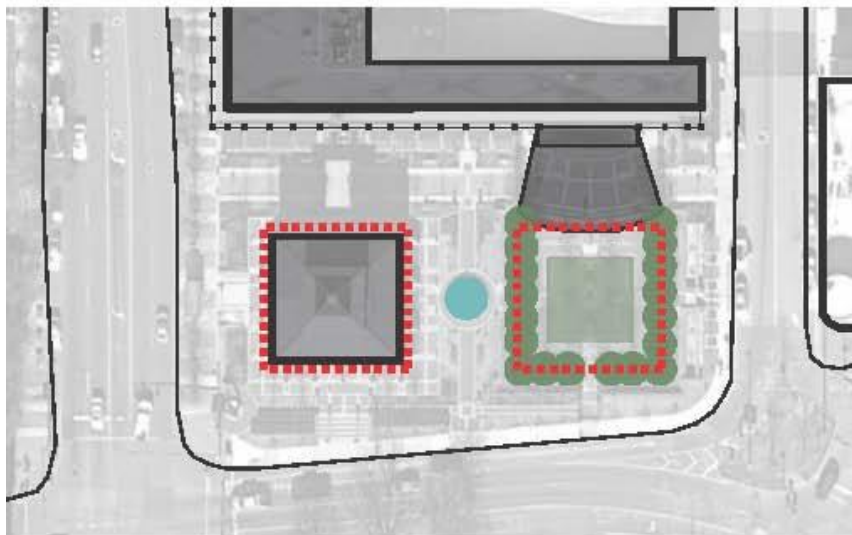
Figure 16. Miller Park Plaza; Chattanooga, TN



Source: Author

Axial Relationships

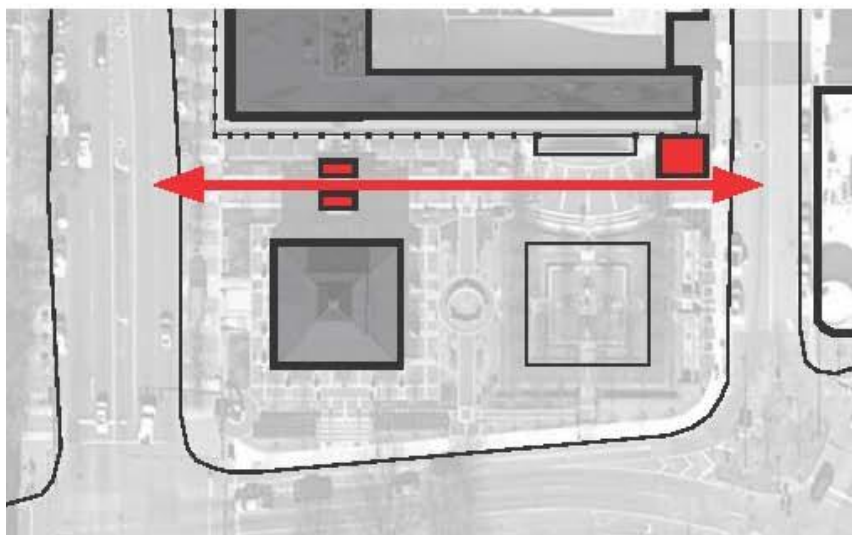
- Pavilion and square garden organized along major axis
- major axis aligns with existing building
- cross axes link the pavilion and garden back to the colonnaded building lining the northern edge



Source: Author

Enclosure and Repetition

- Square form of the pavilion was replicated in the layout of the garden area
- Garden enclosed by trees and acts as extended seating area for stage



Source: Author

Threshold and Linkage

- An archway to the west and a tower to the east mark the entrances to the square from the north
- The square links the city's two major north-south streets

Figure 17. Miller Park Plaza Diagrams

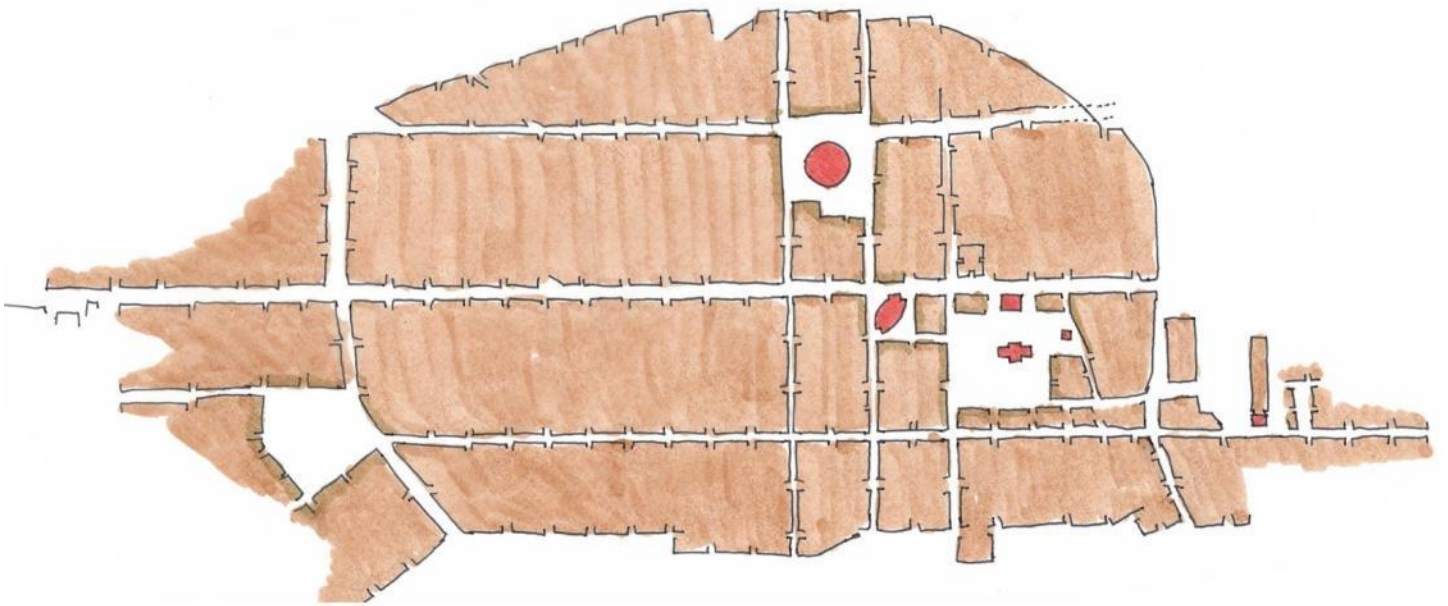
The study of these precedents has demonstrated some important principles for the design of public squares. They include the following:

- **Enclosure:** Spatial enclosure is a common characteristic of all successful squares and it can be achieved with the surrounding buildings or landscape elements
- **Axial Relationships:** Elements within squares and the organization of spaces within the existing fabric utilize strong axial connections to bring order and legibility to the spaces
- **Civic Presence:** Major squares, specifically civic squares, often feature an important building which anchors the space
- **Edge:** Many squares consciously provide seating and places to observe the central field along the edge of the main space. This edge condition can also serve as a secondary layer of spatial enclosure.
- **Threshold and Linkage:** Public squares within the greater urban fabric should serve as important nodes of the pedestrian network. Their potential as both a destination and a path can be strengthened by the creation of strong thresholds.

GRIDDED CITIES

The gridiron plan has been in existence for millennia, since the time of the Ancient Greeks, and its deficiencies from an urban design standpoint have been mentioned previously. The following precedents are cities which adhere to a relatively rigid grid but have incorporated a strong network of public squares that provide physical and psychological relief from the regularity of the grid. Drawing the cities at the same scale allowed for the comparison to Richmond, which is distinctly larger than any of the downtown areas studied. The precedents

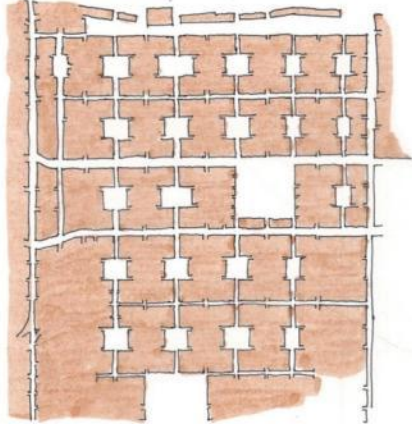
have very dense networks of squares, when compared to the scale of Richmond. Squares tend to be evenly distributed throughout the fabric, likely relating to specific urban districts. Richmond is shown to lack public open space west of the central core.



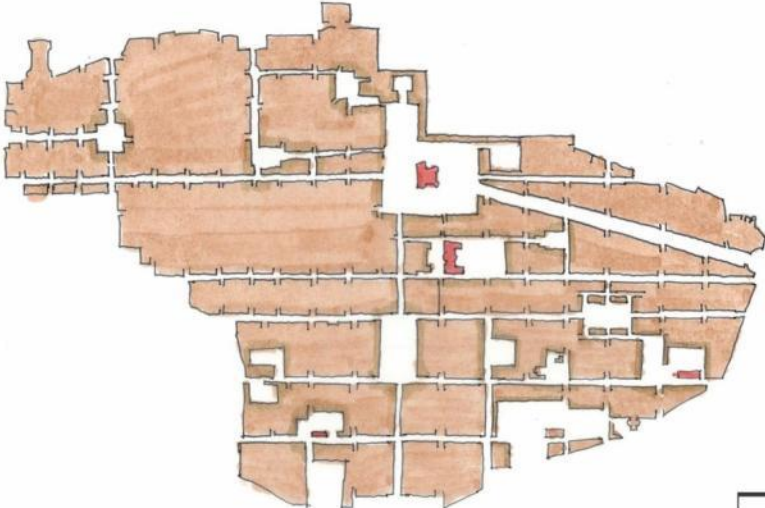
Richmond, VA



Mannheim, Germany



Savannah, GA



Turin, Italy

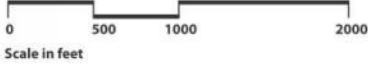


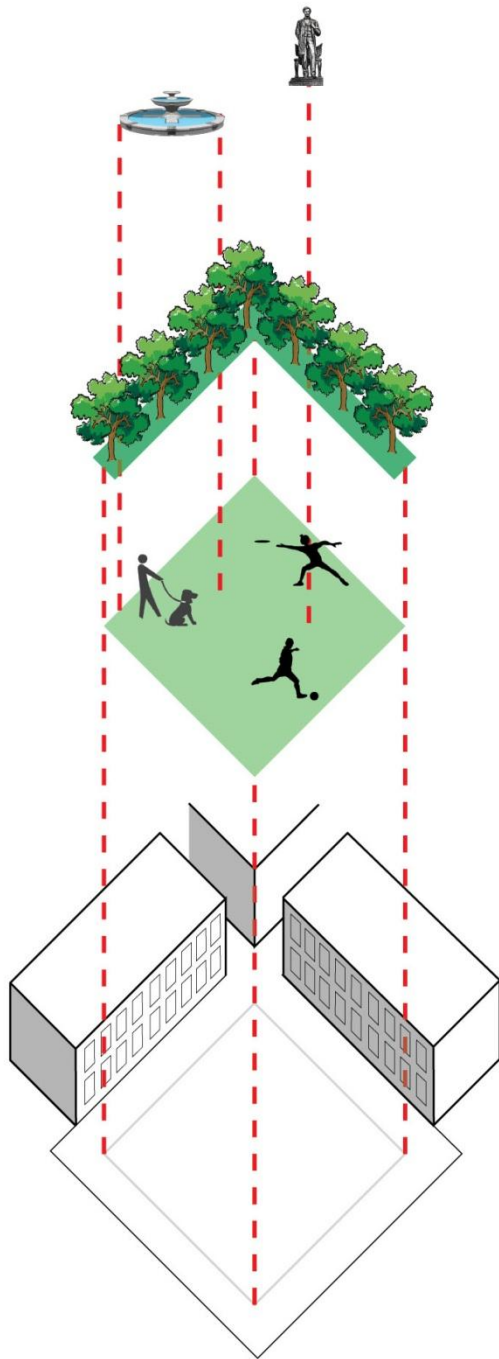
Figure 18. Gridded City Precedents to common scale

TYPOLOGICAL APPROACH

The program of each square is studied through the investigation of square typologies. Public squares can be categorized in a variety of ways, but for this thesis, residential squares, civic squares, and market squares will be studied. First, through the study of precedents, the program and characteristics of each type are generalized in a series of diagrams. These serve as a springboard for the design of each site where a particular typology will be investigated as appropriate to the context.

Typologies of public squares are more distinct in Europe than in the United States. Perhaps because of the smaller number of public squares, we require our squares to meet a wide range of needs and potential uses, resulting in an often generic hybridization between a public park and an urban public square. The reintroduction of clear typologies of squares will add variety and richness to the experience of Richmond's public realm. Each of the three proposed squares will have its own inherent identity and character that will make it a unique part of a complimentary network of legible public squares.

RESIDENTIAL SQUARE



OBJECTS

- Fountains for aural quality and place to cool down in hot weather
- Public art that connects to the community and its history

LANDSCAPE

- Ground surface largely landscaped
- Enclosure on all sides with trees for shade and areas of privacy
- ornamental garden

ACTIVITIES

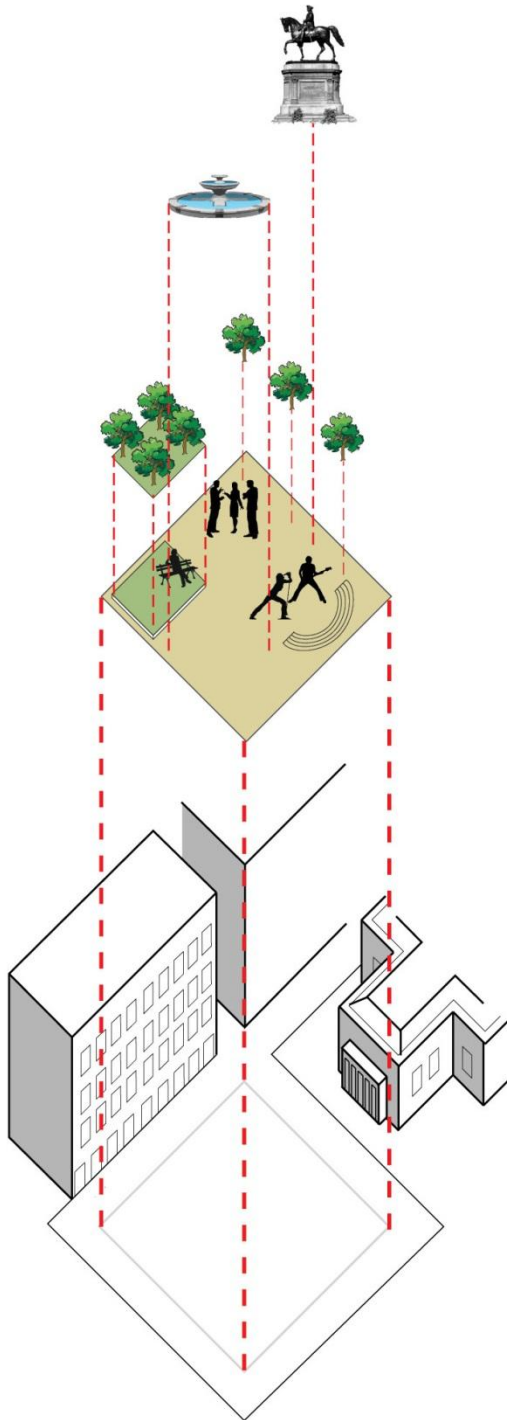
- Place for recreation
- Daily activities - ex. walking the dog, jogging, children playing
- Place for relaxation, both in shade and sun

ARCHITECTURAL ENCLOSURE

- Primarily residential uses
- mix of types
- Some neighborhood-scale commercial and local restaurants
- Low rise - up to 4 stories

Figure 19. Residential square typology diagram

CIVIC SQUARE



OBJECTS

- Fountain as interactive object and visual marker
- Memorials and sculptural program providing a higher-order feel to the space

LANDSCAPE

- Significant open, paved central field for gatherings and flexible use
- Landscaped areas around the edge for seating, retreat, observation of the main space

ACTIVITIES

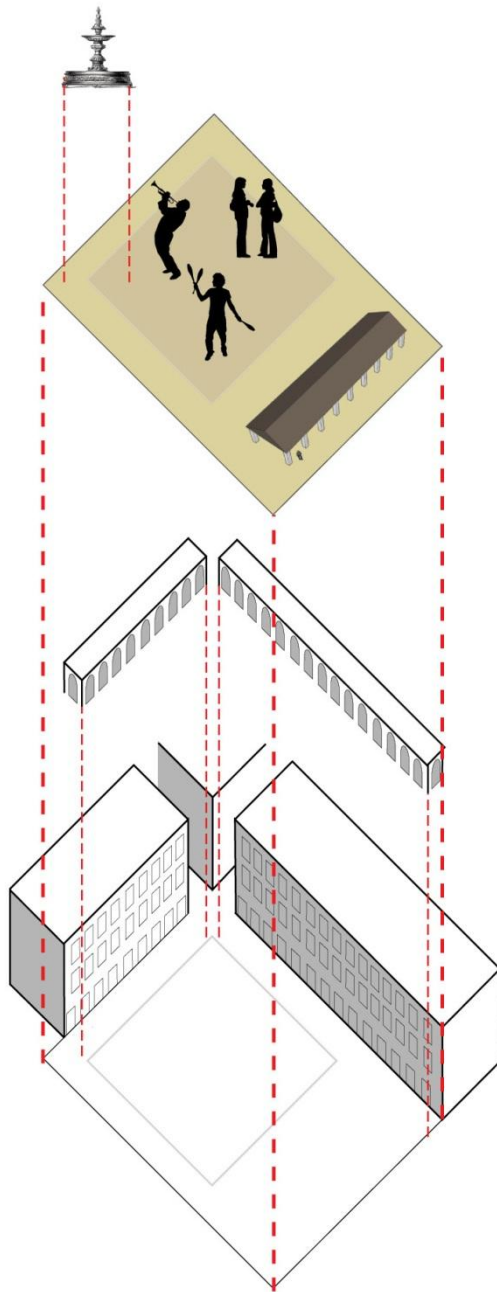
- Place for performances
- Informal seating, relaxing, taking a break, waiting for the bus, etc.
- Place for workers eating lunch
- Gathering places for civic events, political gatherings, etc.

ARCHITECTURAL ENCLOSURE

- Taller buildings
- Object/anchoring building with public/institutional program
- Restaurants and some retail at ground level

Figure 20. Civic square typology diagram

MARKET SQUARE



OBJECTS

- Fountains for water supply supporting markets
- Market structure for an enclosed, shaded market space

LANDSCAPE

- Generally lacking in landscape program

ACTIVITIES

- Shopping: produce vendor to high end retail
- Street performances
- Food stalls/trucks
- Meetings and chance encounters

ARCHITECTURAL ENCLOSURE

- Medium density mixed use
- Retail and neighborhood services
- Restaurants and outdoor seating
- Covered loggia or arcade

Figure 21. Market square typology diagram

4. SITE

RICHMOND HISTORY

The city of Richmond was formally platted in 1737 by Major William Mayo. The original settlement was established on the plateau east of Shockoe Creek along the James River, consisting of 32 blocks from 17th street to 25th street and from Broad Street south to Cary Street. (Figure 22) The town reached a population of 250 in 1742 when it was officially recognized as a town by the Virginia General Assembly. Richmond's fortunes improved after being selected as the capital of Virginia in 1779. The economy, originally based on tobacco exports, grew to include many types of goods, including slaves. The slave markets in Shockoe Bottom were estimated to have sent over 300,000 slaves to the Deep South.⁶⁶

With the completion of Thomas Jefferson's capitol building on Shockoe Hill to the west of the original grid, the city grew westward. By the 1860's, the entire downtown area of today had been developed. (Figure 23) By the outbreak of the Civil War, Richmond was an important port city and industrial center, which made it a natural choice as the capital of the Confederacy. At the close of the Civil War, when it looked as if the city was going to survive relatively intact, a devastating fire spread throughout the city as Confederate troops were making their retreat.

⁶⁶ Downtown Plan, pg. 1.4, 2009.

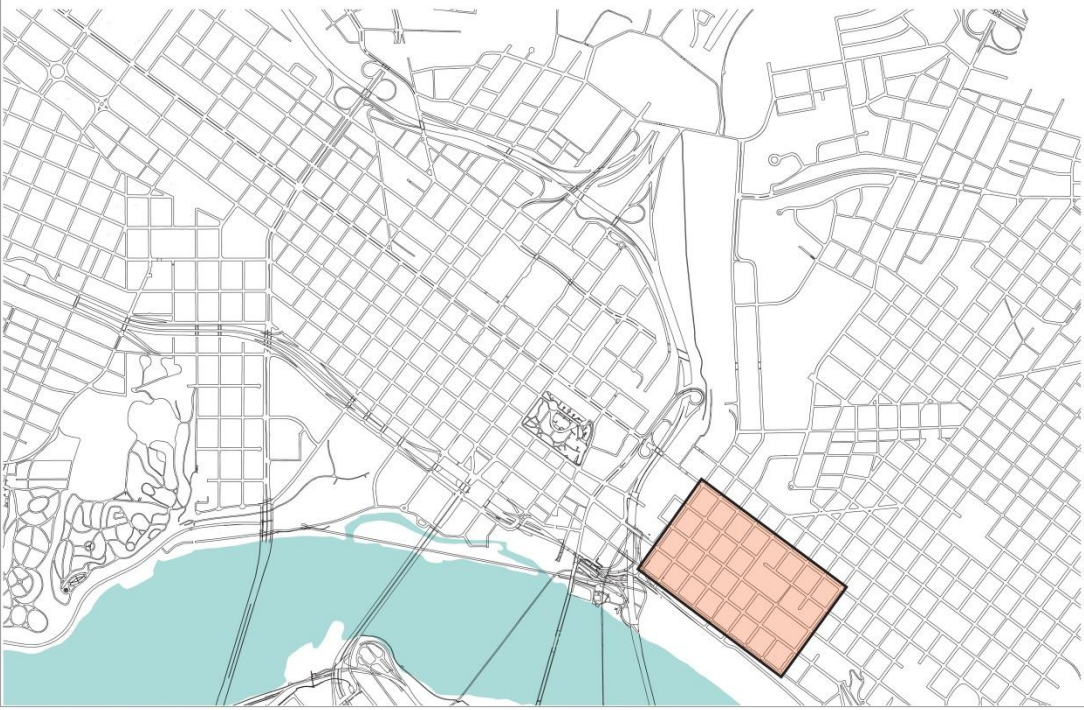
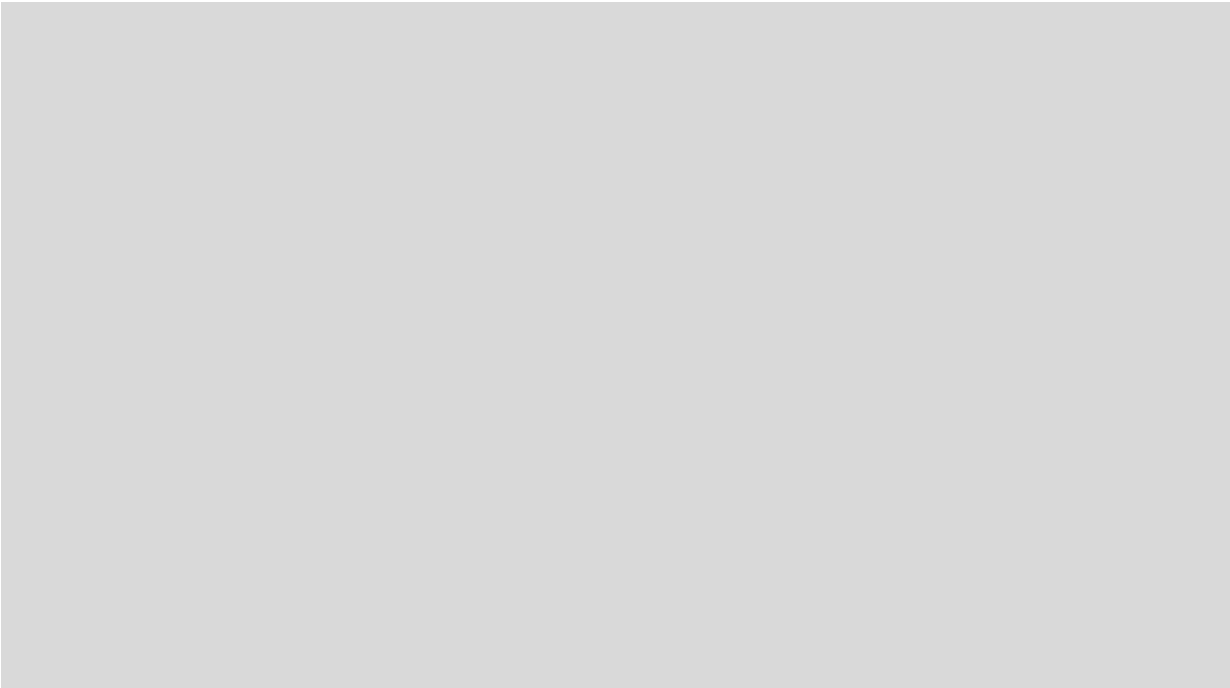


Figure 22. Original Grid of Richmond



The city was quickly rebuilt and enjoyed prosperity under reconstruction, becoming a major railroad hub and center for cigarette manufacture. The city’s population of 81,000 in 1890 was double that of 1860. The arrival of banking interests further spurred development and the

population continued to boom. Broad Street became a retail center for the Southeast, filled with many large department stores.

After World War II, desegregation led to significant changes in Richmond's downtown population, which went into decline. Around the same time, the interstate highway system was blasted through the center of Richmond with the construction of I-64 and I-95. This fueled both suburban expansion and a boom in the office market, which resulted in over 700 new buildings constructed downtown.⁶⁷ The city promoted this expansion, which largely drove housing out of the city center.

By the 1980's Richmond was an established financial and distribution center, but its downtown had lost much of its vitality. In response, the city began plans to revive the downtown with tourism, recreation, retail and housing. In the 1990s, abandoned industrial buildings began to provide the opportunity for significant adaptive reuse schemes that increased the availability of housing near the downtown.

Today Richmond's downtown is on the rise. Residents are returning to re-purposed buildings in the core and retail is reviving along Broad Street. To the west, VCU is expanding and improving the urban environment. The expansion of the Virginia Bio Technology Research Park to the north is bringing new high-tech jobs to the city. However, the core areas still suffer from a lack of retail and commercial uses and an overabundance of surface parking lots that suppress the life of the street.

⁶⁷ Ibid, 1.6.

URBAN ANALYSIS

In order to select intervention sites, a rigorous urban analysis was conducted to understand Richmond and illuminate areas with development potential.

Figure Ground

This drawing shows the gradually increasing building density of the downtown moving southeast. The object buildings of the Richmond Coliseum and the Virginia State Capitol are seen clearly set within the urban fabric. When the grid reaches Interstate 95, a void is formed that breaks the continuity of the downtown.



Figure 24. Figure ground diagram

Streets and Highways

The blue dashed lines indicate the highways that impact the downtown. Because Richmond does not have an inner beltway, through traffic is heavy. The red lines indicate streets of various levels of hierarchy. Broad Street and Main Street are the two primary east/west routes that link the city together.

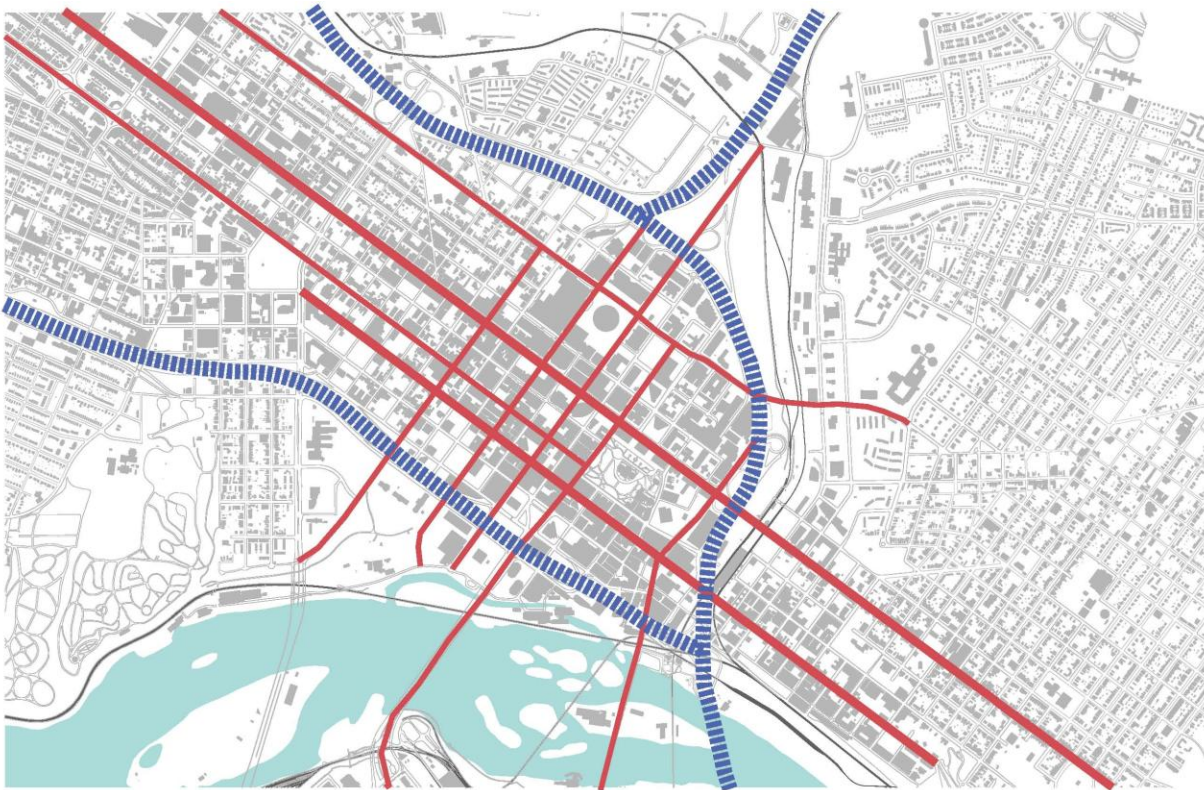


Figure 25. Major Paths

Central Grid

Richmond's grid is very regular with few discontinuities or shifts in the downtown area. The block size of 380' by 330' is a good dimension for pedestrians and development alike.

Pedestrians prefer shorter blocks for a more varied experience. The block size works well for buildings because it allows good frontage on the more important east/west streets and an alley off of the north/south streets. The grid is interrupted significantly by Interstate 95. Other impositions on the grid occur where large civic buildings are located, most visibly the Richmond Convention Center, Coliseum, and State Capitol.

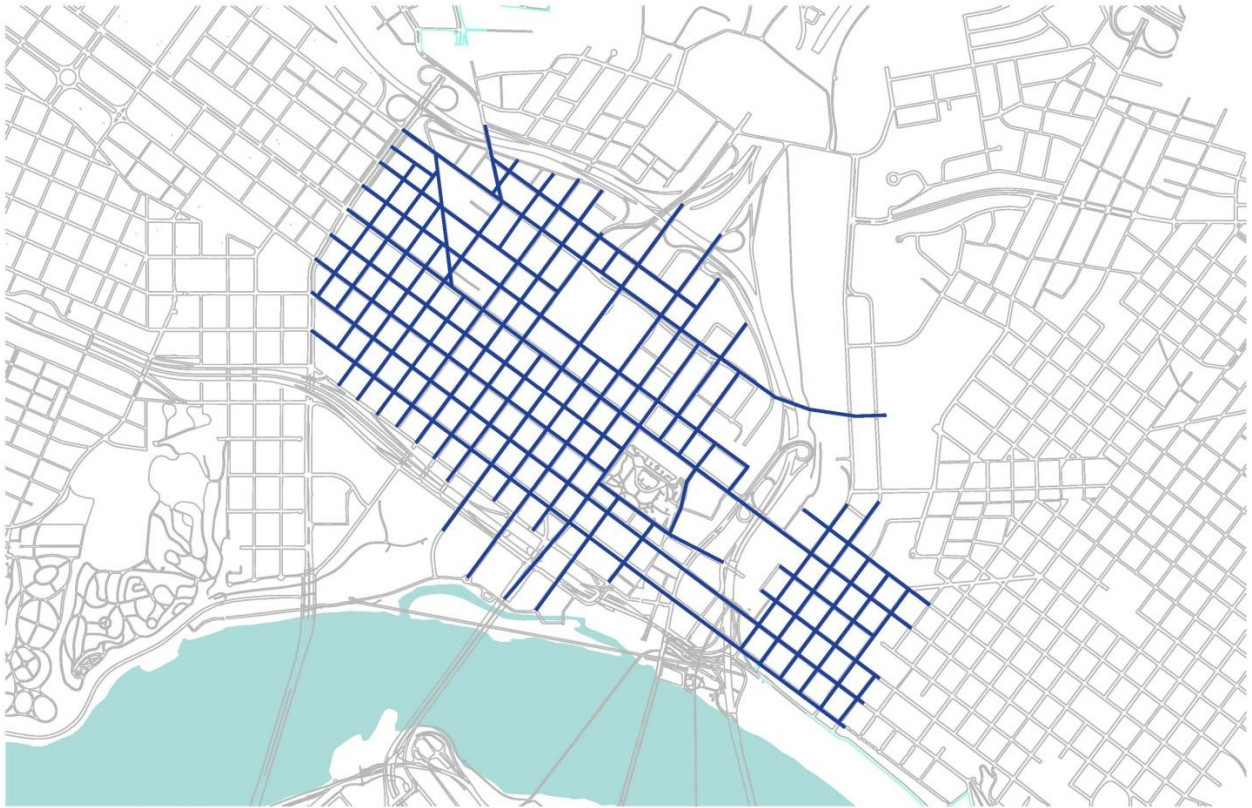


Figure 26. Central Grid

Railroads

Both Amtrak and freight rail lines connect to the downtown from the north along the path of I-95. Main Street Station, indicated in red, is the Amtrak passenger stop serving Downtown. The rail right-of-way is a major barrier between the downtown and the more residential neighborhoods to the east.



Figure 27. Railroads

Public Space

Richmond's public space consists mostly of parks, shown in dark green. The James River is an important recreational amenity to which access is provided through parks. Plazas, indicated in yellow green, are attached to office buildings in the downtown and provide a limited amenity for residents, workers, and tourists. Figure 29 shows a selection of significant public spaces in Richmond. There is a notable lack of a downtown public space that functions as a true urban square. Capital Square functions as a park and is not inherently public in character. To the west, Monument Ave. and Monroe Park are local precedents that have a major impact on their respective districts.



Figure 28. Existing Public Spaces

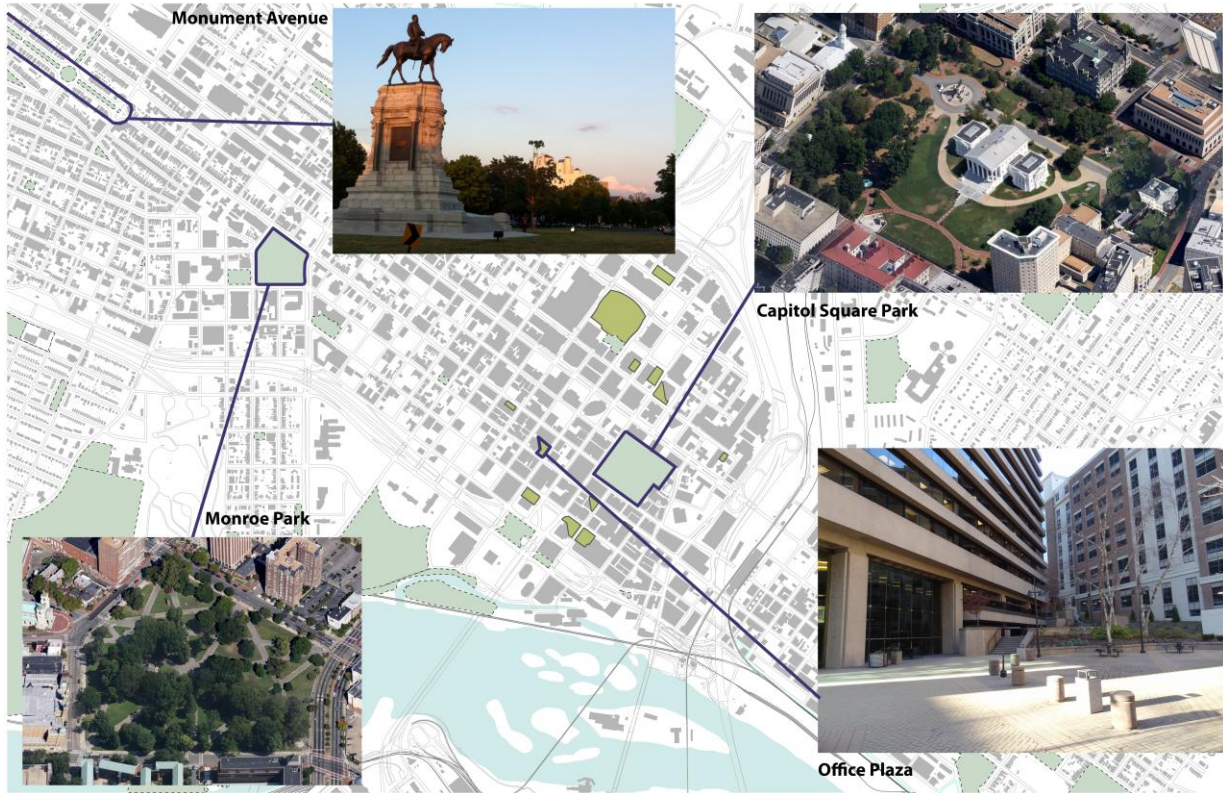


Figure 29. Significant Public Spaces

Existing City Fabric

This diagram shows the city fabric and open space of Richmond, with the major streets emphasized. It shows the downtown's strong east/west directional quality and the lack of strong connections to the James River. Existing plazas and parks demonstrate some semblance of a network of spaces. Particular streets, such as Franklin Street, already link together significant public spaces in Downtown and beyond.



Figure 30. Urban fabric of Richmond

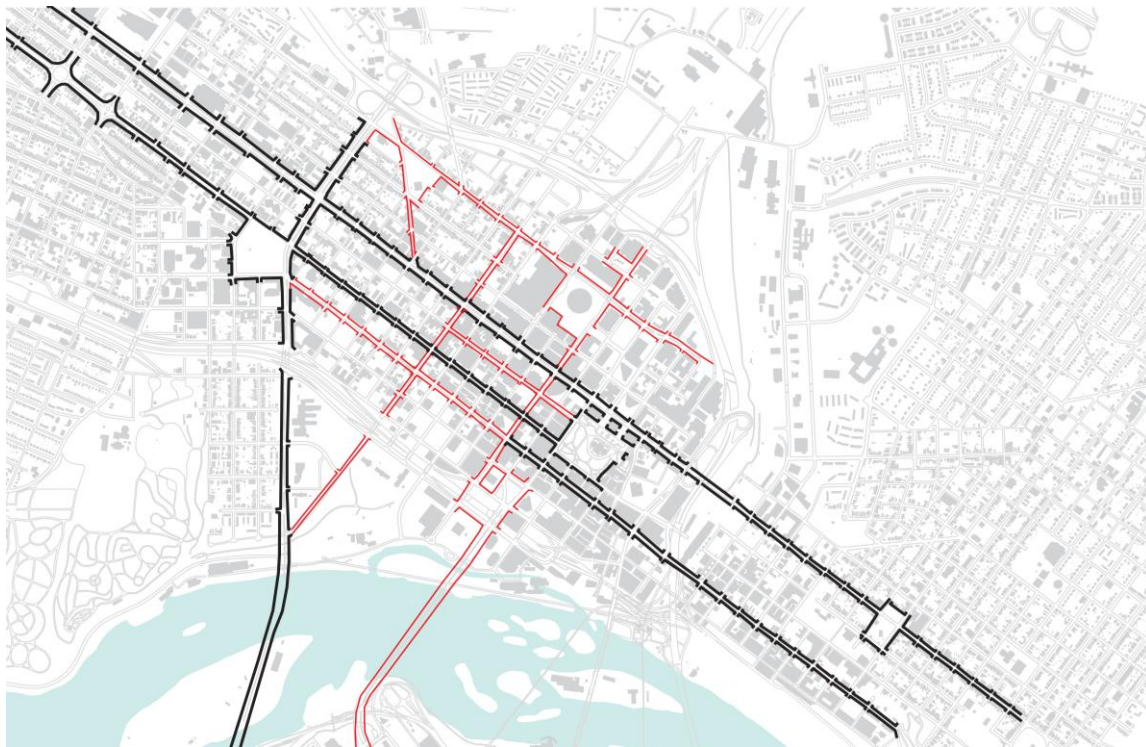


Figure 31. Major paths

Population

Data from the 2010 census shows specifics on downtown residents. The greatest concentration of residents is in the area toward the west, which is near VCU and has an infusion of students. The northeast quadrant in this diagram represents a part of the city that is largely single-use office or institutional, which is why the number of residents there is so low. The southeast quadrant is continuing to grow with the construction and adaptation of new apartment units.

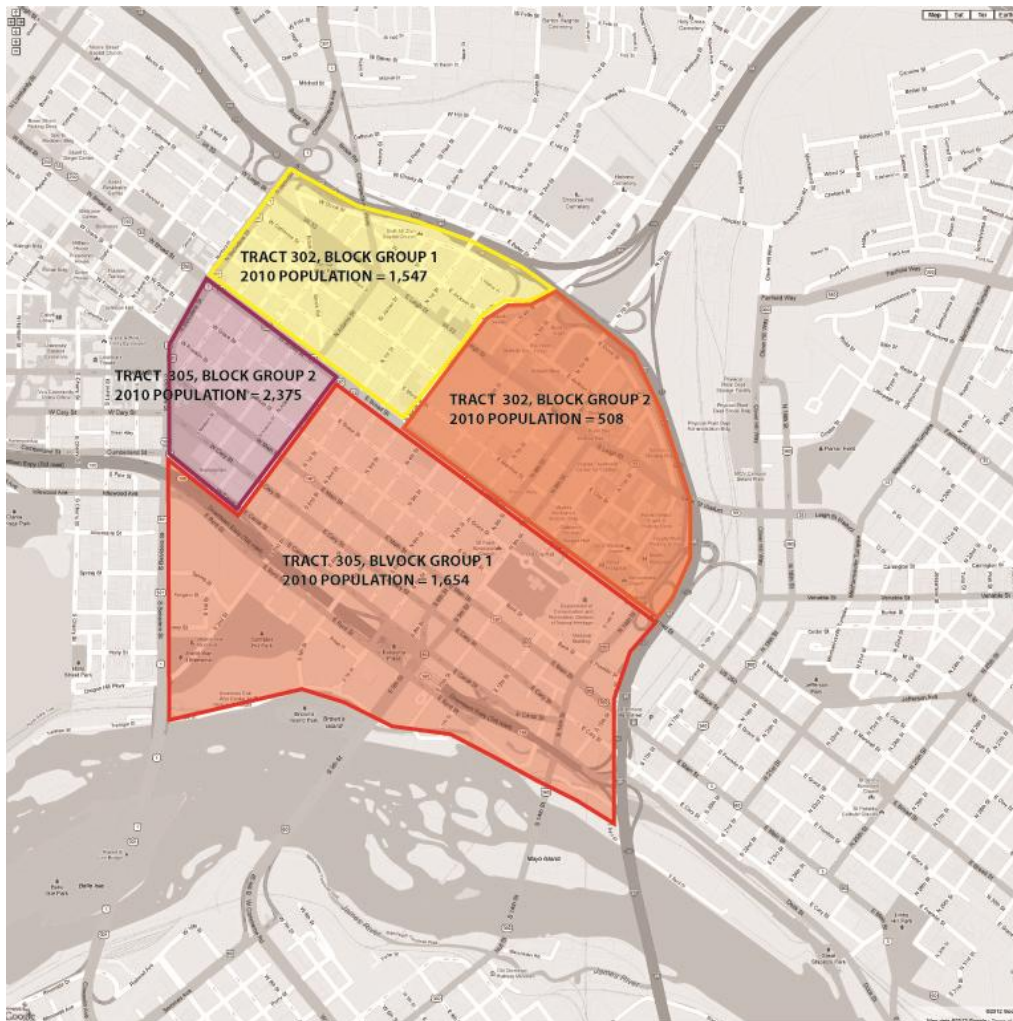


Figure 32. Population figures from 2010 census

NEIGHBORHOODS

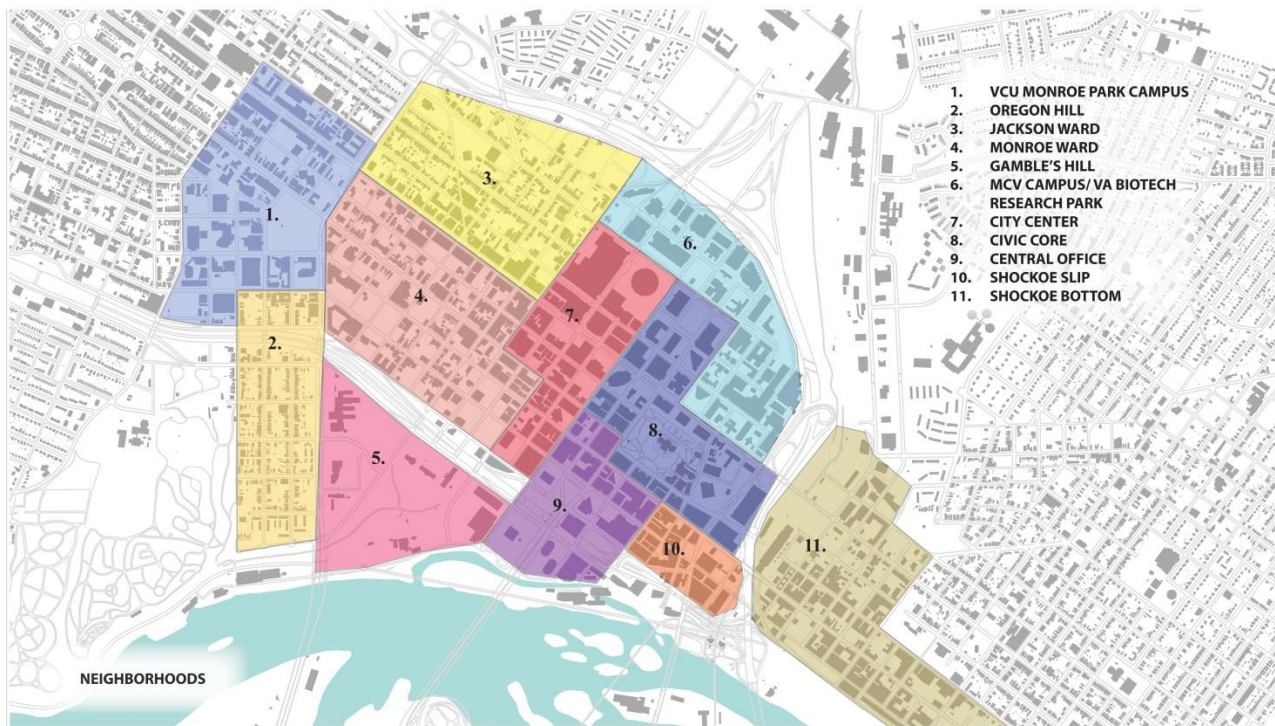


Figure 33. Neighborhood

VCU and Downtown Neighborhoods

Virginia Commonwealth University is the anchor of the western part of Downtown, beginning at the intersection of Broad Street and N. Belvedere Street. The campus is built around Monroe Park, an historic public space dating to the 19th century. The Monroe Park campus is a vibrant area with a mix of institutional, commercial, and residential uses which encourage pedestrian activity. In recent years, VCU's development has significantly improved the Broad Street corridor west of N. Belvedere Street. The area around Monroe Park is also home to two cultural anchors, the historic Landmark Theater and the Cathedral of the Sacred Heart.

Oregon Hill is a largely residential neighborhood of single-family homes. Along the east side of the neighborhood is a linear park linking Monroe Park to the recreational spaces along the James River to the south.

Moving east, Monroe Ward is a truly mixed use neighborhood consisting of various densities. Its western region is strongly influenced by VCU, which is expanding to the east, and a significant student population. Franklin Street, which provides a direct link between Monroe Park and the State Capitol grounds, is given a unique character by its mix of historic residences and civic/institutional buildings. Notable is the landmark Jefferson Hotel, with its unique Renaissance Revival skyline.

Gamble's Hill has a distinctly different character from the neighborhoods to the north and west. It is dominated by individual buildings and sweeping green lawns. Various corporate headquarters, the Virginia War Memorial, and historic Tredegar Iron Works dominate the high ground that gives sweeping views of the James River.

Broad Street

Broad Street is the widest and most historic downtown street. Although it is not the thriving commercial street that it was in the earlier part of the 20th century before the department stores fled to the suburbs, it is still Richmond's grand avenue. As a designated primary image corridor, Broad Street's development is very important for the downtown as a whole. It is the "front door" for state and local government, VCU, and the city's tourism industry.

The street is relatively intact west of 5th street and is developing into an "active pedestrian-scaled, mixed-use environment of low rise buildings."⁶⁸ Broad Street is an important

⁶⁸ Downtown Plan, p. 1.8.

transportation artery for buses, cars, and pedestrians. Recent proposals envision adding a Bus Rapid Transit system and eventually the revival of an electric streetcar system.

Jackson Ward

Perhaps the neighborhood in Richmond with the greatest sense of its history is Jackson Ward. After the Civil War it became a predominantly African-American neighborhood and flourished within its own local economy. The many entertainment venues attracted performers such as Ella Fitzgerald and Duke Ellington, which led to Jackson Ward becoming known as the “Harlem of the South.”⁶⁹

With desegregation, blacks began to move throughout Richmond, which led to Jackson Ward’s decline. Today the neighborhood is being rehabilitated with the restoration of historic buildings including the historic Hippodrome Theater and the addition of new housing. Plans to return 2nd street to its roots as an entertainment district are underway.

City Center

The most densely built areas of downtown Richmond surround the State Capitol. To the north of Broad Street is the VCU Medical Center campus and a recently created Bio Technology Research Park that is bringing high tech jobs to the city center. Around the State Capitol itself are various state office buildings and some important historic landmarks, including the White House of the Confederacy, Old City Hall and Monumental Church by Robert Mills. South and west of the Capitol complex is Richmond’s office district, dominated by high rises and parking decks. Toward Broad Street there are other important buildings including the recent Federal Courthouse, Richmond CenterStage, and the Library of Virginia.

⁶⁹ <http://www.jacksonward.com/>

The central district is characteristic of the typical central office districts in U.S. cities. Until the present, there was little housing availability and limited commercial activity. Recently there have been several projects bringing housing and retail back to the city center, a positive sign for the further revitalization of the area.

James River

The James River waterfront provides extensive recreational opportunities for visitors and residents alike through the system of parks and trails. The river itself boasts a variety of river sports and cruises. The historic Tredegar Iron Works are home to the American Civil War Center, a major tourist attraction. Recent attempts to connect the riverfront to the city have been limited by the Downtown Expressway which is an obstacle to development.

Shockoe Slip

A snapshot of Richmond's past, Shockoe Slip is a small, vibrant district of restored three to five story brick buildings from the 19th and early 20th centuries. Revitalization efforts began in the 1970s, and today the few blocks along Cary Street are a great example of traditional urbanism that could serve as a model for other parts of Richmond. The streets are pedestrian scaled and well treed. Cobblestones signify entry into the neighborhood, slow traffic and give a distinctly European feel. The area is densely packed with restaurants, shops, and a few hotels all within easy walking distance of each other, the James River, and State Capitol Complex.

Shockoe Bottom

Before the construction of Interstate 95, Shockoe was one neighborhood of historic low-rise buildings from the era of Richmond's importance as a river port. The interstate brutally severed this neighborhood into two halves, but today both have rebounded from this insensitive

act. The area is already one of Richmond's top entertainment districts with restaurants and ample nightlife. Since the 1980's, old industrial and warehouse buildings have been converted to lofts, and in recent years there have been new projects to bring high-end apartments to the area.

The neighborhood is home to the historic Main Street Station, opened in 1901. The beautiful Renaissance Revival building was restored and reopened for Amtrak service in 2003. Train service to Main Street Station is currently limited, with several trains stopping only at the suburban station, but there are plans for Amtrak's high speed rail to be extended south to Richmond from Washington, D.C. Current plans to redevelop the train shed will bring new retail and could serve as a catalyst for future development on the underutilized land around the station.

Downtown Master Plan

The plan for Richmond's downtown envisions a revitalized downtown alive with commercial activity and new residents. It makes recommendations for strengthening the character of the urban area by continuing Richmond's rich traditional urban fabric through design which enhances the pedestrian experience. An emphasis is placed on bringing housing and commerce to downtown that caters to mixed incomes. The existing park system is integrated into a plan for additional street trees. Much of the fringes to the central core have lost the definition of the street edge with an influx of surface parking lots and vacant lots. The plan aggressively infills all of these sites, but does not make any provision for new public squares.

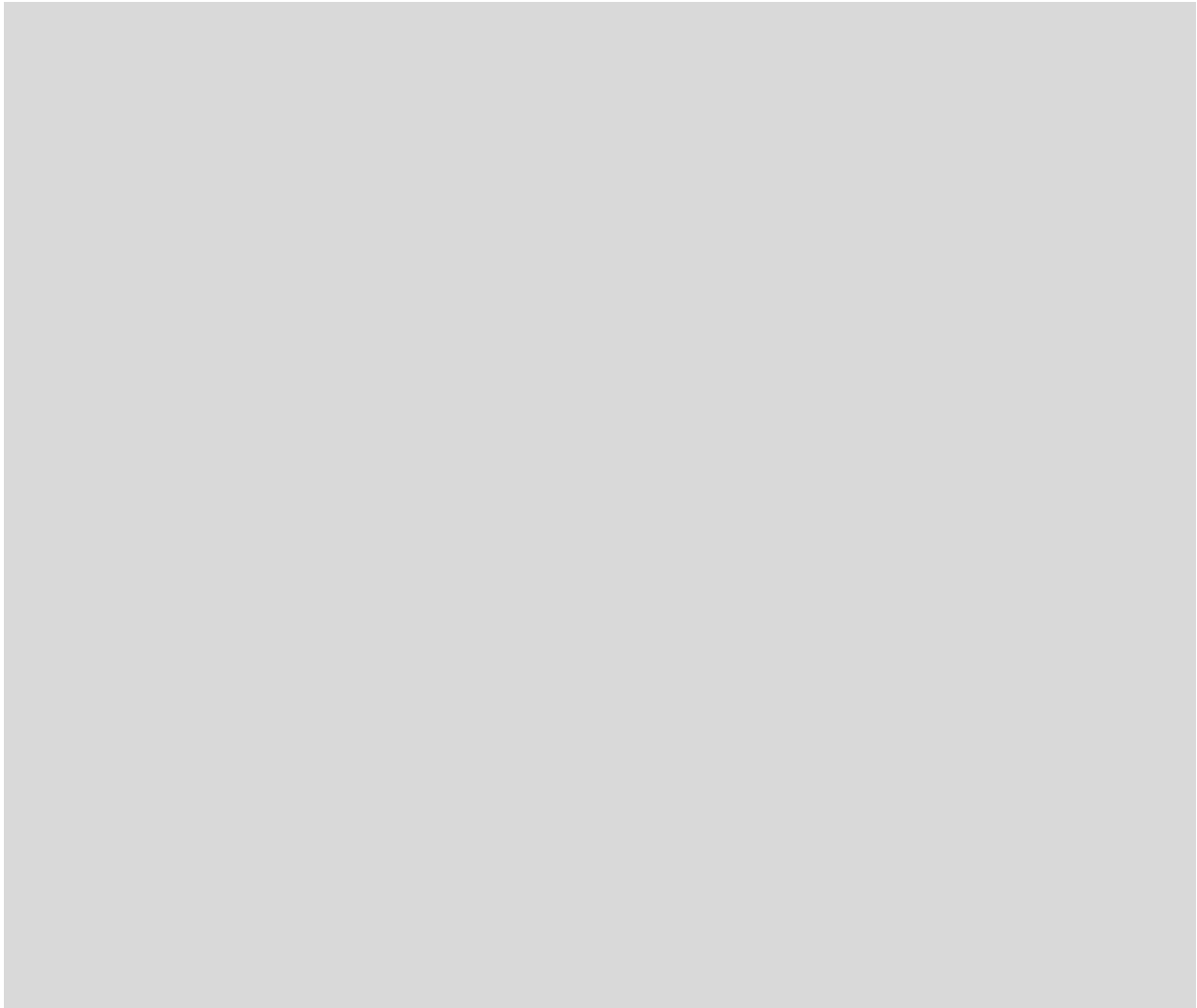


Figure 34. Downtown Plan, 2007

SITE SELECTION

The proposals for public squares in this thesis will serve as an additional layer to the Downtown Plan that is already in place. Location of these interventions is critical. When choosing locations it will be important to consider how a new square will fit into the Downtown Plan. Through the study of theory and precedents, it is clear that the most successful squares are strongly woven into a city's pattern of streets and blocks, allow for walkable connections, and serve as the centers for urban districts.

Network of Paths

The following diagrams, showing major paths in black and minor paths in red, indicates the strength of particular streets as pedestrian and vehicular corridors. It shows that Main Street, beyond the central business district, loses its primacy to Franklin Street and the weakness of the north-south paths. The sites chosen for intervention are between Main Street and Broad Street and take advantage of the pre-existing east-west flow of the city for strong linkages between the three sites. Additionally, the new squares will strengthen some paths, most notably Grace Street and Franklin Street east of the Capitol, where they now link new public squares to each other and existing public spaces.

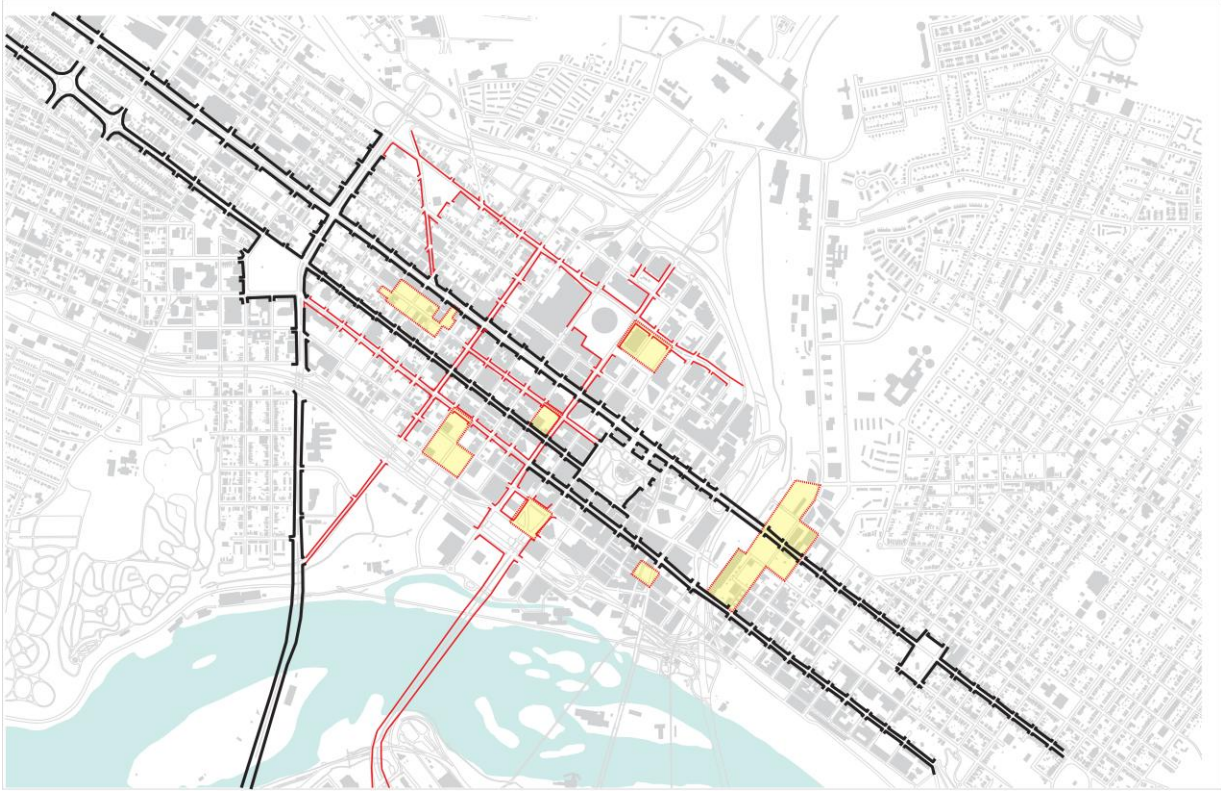


Figure 35. Major paths with potential sites

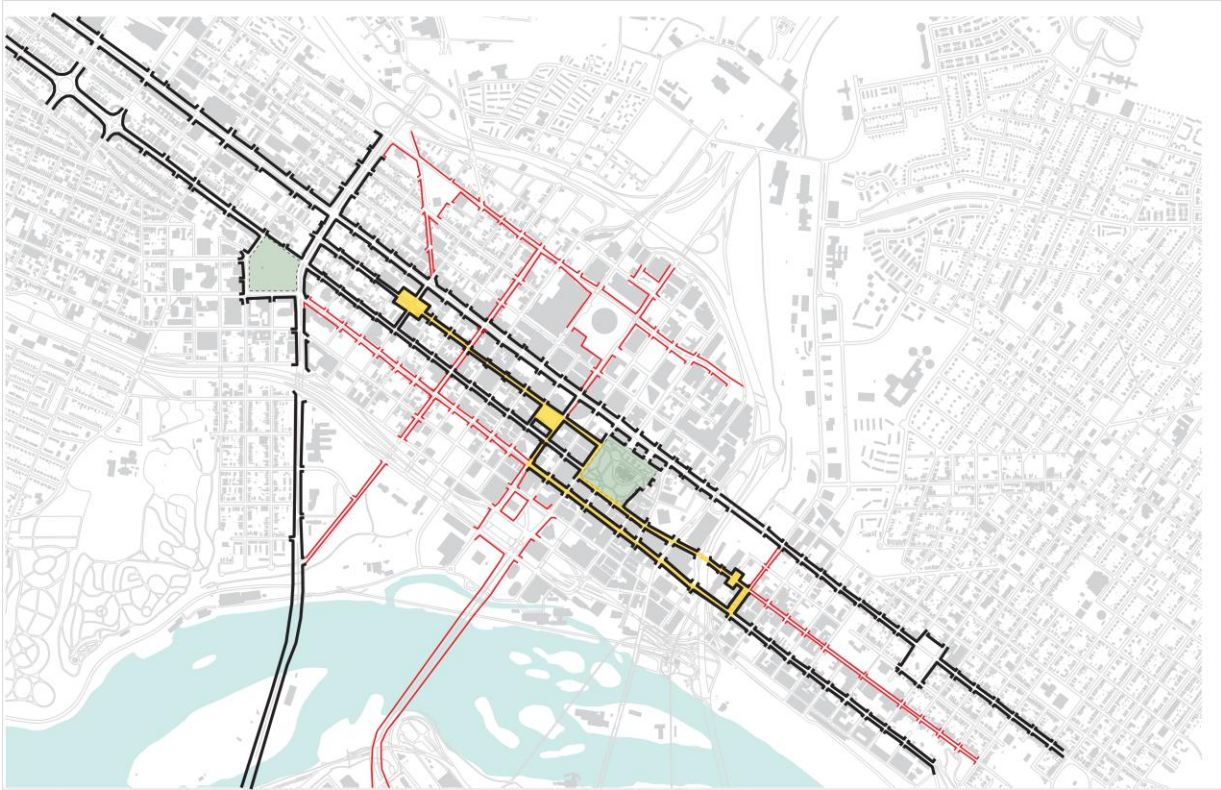


Figure 36. Network of paths with proposed site

Walking Distances

One goal of the proposed network of public squares is to enhance the experience of the pedestrian in the downtown. This is achieved by positioning new public squares strategically across the downtown so that pedestrians could feasibly walk the full width of the city, from Monroe Park in the west to Main Street Station in the east. Locating the new squares within one third of a mile of either a new square or an existing public space promotes this pedestrian promenade by providing a variety of spatial experiences and places to stop and rest along the path.



Figure 37. Walking distances between proposed sites and existing public squares

Districts

Public squares are most effective when there is 24/7 activity. In a city like Richmond which cannot rely on a consistently large flow of tourists, this can only be accomplished with a sizable local population that uses the spaces. Locations for new public squares should be near existing residential communities or in areas with a potential for residential growth. Public squares serve as community gathering places and have the potential to spur new urban housing, so Richmond's existing neighborhoods should be considered. A new square may be able to help enhance the image and identity of an historic neighborhood.



Figure 38. Major districts with proposed sites

INTERVENTION SITES

Broad Street

Moving northwest along the major streets of Downtown, the character of the neighborhoods change from the central core of offices and institutional uses to mid and low-rise single and multi-family residential uses. This site, located one block south of Broad Street and its denser commercial fabric, is currently an open parking lot. The residential, lower-rise character of the neighborhood suggests that the typology of the residential square could be investigated on this site.

The north edge of the parking lot is a service alley for the buildings fronting Broad Street. South of the parking lot, across Grace Street, the street edge is fragmented and there are opportunities for infill to shape the public square. The edges to the east and west are not active frontages, and in fact, there are no fronts facing the current open space except for a few across Grace Street.

The site sits at the juncture of two residential neighborhoods, Jackson Ward to the north and Monroe Ward to the south. The Broad Street commercial zone divides these neighborhoods. Broad Street was once the bustling commercial heart of the city with department stores and great pedestrian activity. As the downtown is on the rebound, Broad Street is re-emerging as an important commercial district. Nearby the site along Broad Street is a collection of restaurants and specialty retail shops. As with other areas of Richmond, historic buildings are being adapted to apartment living, as has occurred in a building north of the site along Broad Street. Other important buildings nearby include the historic Jefferson Hotel and a monumental neo-classical church which straddle N. Adams Street as one moves south from the site. Across Franklin Street from the church is a YMCA which serves the residents of the area.

The nature of Grace Street at this location is important for the potential development of a square. Its character as it passes the center city site is more urban with wider sidewalks and a narrower path for traffic. Once it emerges into the neighborhoods of less density, the street widens and becomes more of a thoroughfare for traffic than a street designed for the pedestrian experience. Looking to the broader street network, however, Grace Street is between two of the city's major thoroughfares, Broad and Main, and so its role as a major vehicular route can be called into question.



Figure 39. Broad Street site plan



Figure 40. Broad Street site: land use



Figure 41. Broad Street site: building frontages



Figure 42. Broad Street site: street hierarchy



Figure 43. View toward the back of the buildings fronting on Broad Street



Figure 44. Aerial view of site looking north

Downtown Core

The site is currently occupied by a city-owned and operated parking lot and parking garage and some small-scale commercial buildings on the southern end of the block. It is a prime location one block south of Broad Street and two blocks west of Capitol Square in the heart of the densest part of the downtown core. Richmond lacks a true civic square that operates as a room in the city fabric, and this site has the opportunity to fill that role as a central gathering place.

The uses surrounding the site are increasingly diverse for an American downtown. The buildings in this part of the city tend to be taller, but there is still a range from the surviving two story commercial buildings up to late 20th century office towers. Uses are predominantly commercial and office, with some amount of ground floor retail and commercial uses. (Figure 46) Although the area around the site still has characteristics of the single-use “central business district” that was responsible for killing downtowns in cities across the U.S., there are signs of revival with the recent opening of mixed-use apartment buildings. Richmond has an extensive stock of historic buildings ripe for adaptive re-use, which is seen in projects very near the site, including the historic John Marshall hotel which has been converted into 238 apartments with 26,000 square feet of ground floor retail and restaurant space. A similar project is being undertaken in the historic building across 7th Street to the southeast of the site, known as 700 Centre, slated for completion in 2014.

North of the site are three important buildings that influence the area in very different ways. Richmond CenterStage is a combined performing arts center which houses various stage and musical groups, including the Richmond Symphony Orchestra.(Figure 49) It was recently expanded and currently occupies the entire block north of Grace Street. The corner of Grace and

8th Street belongs to the historic Carpenter Theater and its distinctly eclectic Moorish-inspired façade. (Figure 50) To the west of CenterStage is the federal district courthouse, recently completed in 2008. Unlike the theater, which is a draw to people, the courthouse takes up an entire block and contributes nothing to the life of the street. On the block northwest of the site is a recently completed Hilton Garden Inn that will bring an influx of visitors to this part of downtown. Overall, the buildings around the site have varying levels of street activation, which is a crucial ingredient for successful public squares. (Figure 47) They provide a strong sense of enclosure, only interrupted in a few places where service alleys impact the north/south streets. (Figure 48)

On the site itself, in addition to the parking lot on the north side, is a row of 2-story commercial buildings on the southeastern corner, an adapted bank built in the 1940s, and on the southwestern corner, a parking garage also built in the 1940s. The bank and parking garage both possess significant architectural character and contribute to the Grace Street historic district. The parking garage, while boasting a beautiful façade from an age when parking structures were designed to contribute to the cityscape, is today obsolete for modern cars and only the lower two levels are in use. It presents a significant design challenge as the site is developed.

The site must respond to the needs of a wide range of user groups, including residents, tourists, downtown office workers, and patrons of the performing arts center. The site has the potential for strong linkages to Broad Street to the north, and it is already a part of Franklin Street, which will eventually link Main Street Station, Capitol Square and Monroe Park to the west, continuing to become Monument Avenue. Grace Street on the north side of the site provides a direct link to the Broad Street site to the west. The proximity to Capitol Square makes the site a logical destination for tourists that disperse from the city's major attraction. Richmond

CentreStage provides a built-in anchoring building and suggests a need for more restaurants to serve the theater patrons.

Challenges of the site include the limited street level activity and the small number of full-time residents in the area, which is currently insufficient to support greatly expanded retail activity. The site has a significant topography change of about 30 feet from the northern to southern corners and sun penetration is limited by the tall buildings to the south of the site. The parking existing on the site would need to be accommodated, likely underground. The realities of the real estate market will need to be observed with regards to the economic feasibility of a new public square. The site may need to provide enough value through the addition of some new buildings in order to justify a large public space.

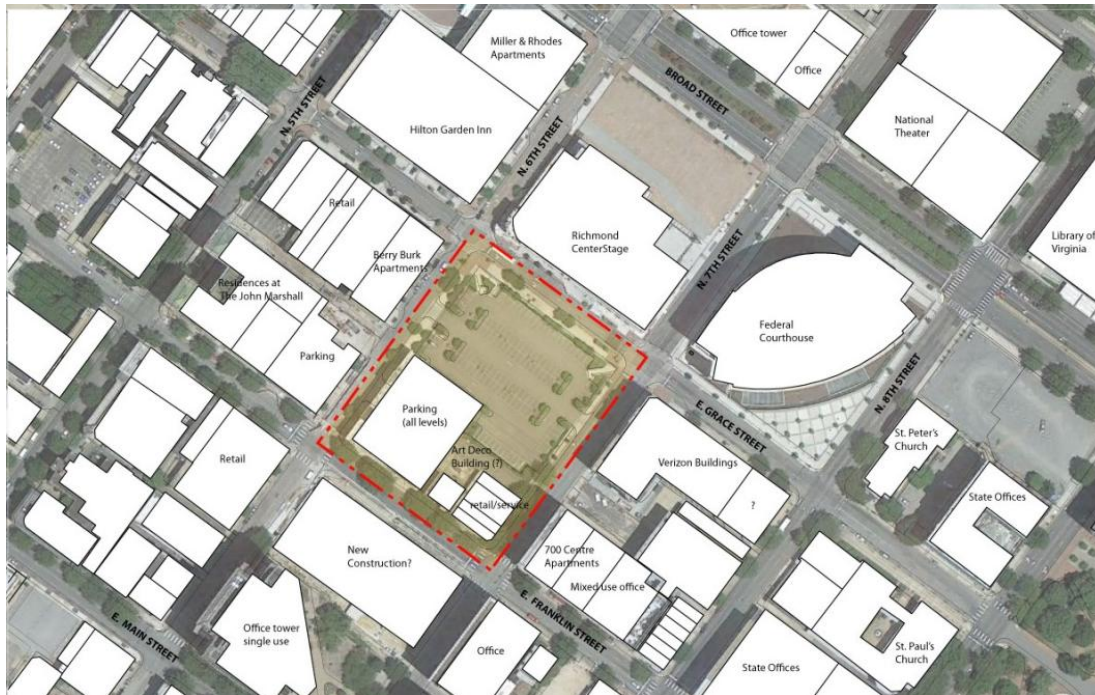


Figure 45. Downtown core site existing conditions plan



Figure 46. Downtown core site: land use

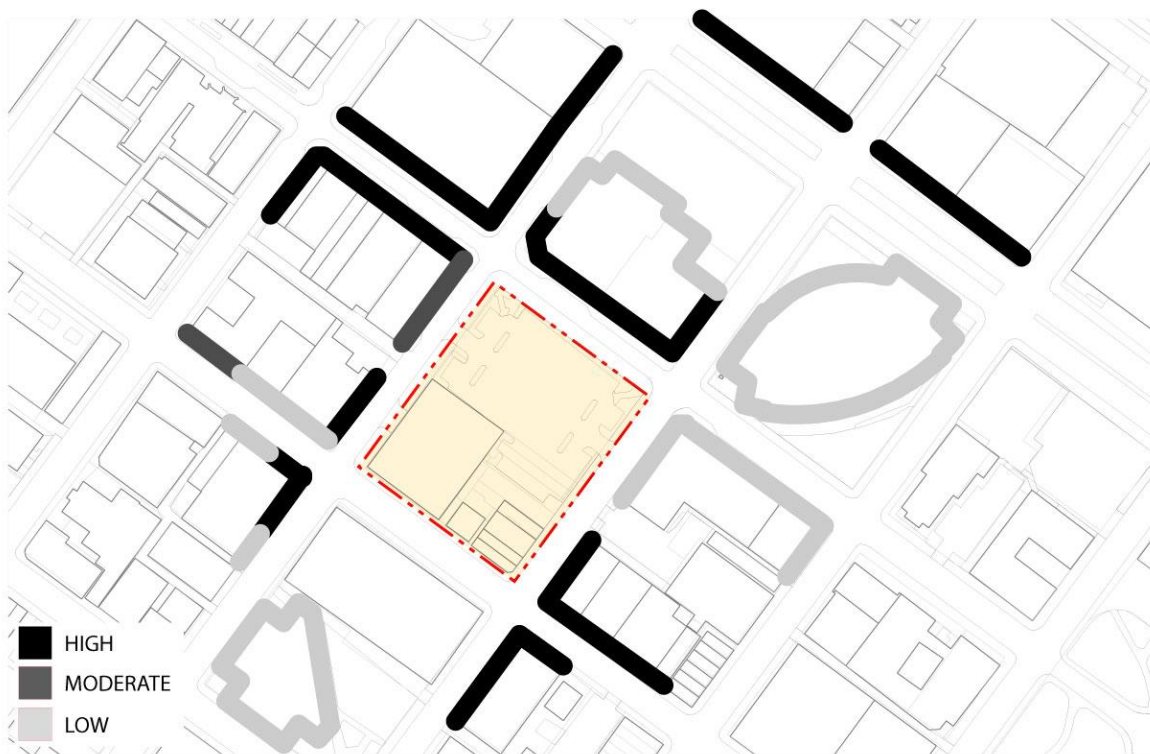


Figure 47. Downtown core site: activity at ground level



Figure 48. Downtown core site: street hierarchy



Figure 49. View northwest towards the new part of Richmond CentreStage



Figure 50. The Carpenter Theater



Figure 51. Panoramic view looking northwest across existing parking lot



Figure 52. View southeast from the north end of the site.



Figure 53. Existing parking garage on southwest corner of site

Main Street Station



Figure 54: Main Street Station viewed from the south across Main Street

The area around Main Street Station is the heart of the Shockoe Bottom neighborhood. There are many shops, restaurants, and bars within an easy walk of the station, focused primarily along Main Street. The area is known as one of Richmond's top nightlife locations and has seen significant increase in the number of housing units available with the adaptive re-use of industrial buildings. Adjacent to the station is the site of the historic 17th Street Farmers Market, which has been constantly occupied by a market since the late 18th century. The present, non-historic market structures are open-air pavilions which allow vendors to park directly inside to display their wares. The market currently operates on weekends.

The space directly east of the station is currently a parking lot and is identified as a prime location for the development of a square. The building to the east of this open space is the old YMCA Hotel, built for railroad workers at the turn of the century. Its Italian Renaissance

detailing mimics that of the station and they complement each other well along the frontage of Main Street. The challenge presented by this building is that it has only one primary façade, with the other three reading distinctly as sides, which do not contribute to the street level. (Figure 58)

Behind the YMCA building (now a high-end bar) is a row of commercial buildings fronting on the market place and a warehouse. They are not strong contributors to the architectural character of the space and present an opportunity for redevelopment. The frontage facing the market on the east side is active and vital, with narrow shop fronts housing mostly bars and restaurants. The low-rise, small scale character and grain of this block could serve as inspiration for the overall design approach. The general character and use of buildings around the 17th Street Market is a traditional commercial typology with nearby buildings that are primarily apartments. (Figure 57)

The primary street past the site is Main Street, which continues west into the downtown as a primary path of vehicular and pedestrian movement. (Figure 59) South of Main Street, the street grid loses some coherence as the combination of elevated interstate and trains stifles development. The next street north, Franklin Street, currently terminates at the concourse of Main Street Station. A redevelopment effort for the concourse has been approved that will include the re-connection of Franklin Street, strengthening the station's connection to Capitol Square. Franklin and Main Streets are connected at the 17th street market by 17th street which splits into two one-way lanes around the market pavilion.

The site around the station and 17th street market presents exciting opportunities for redevelopment as a public square. Its deep history as a market square suggests it to be an ideal place to test programmatic and design ideas based on the market square typological study. The existing buildings will present a challenge in terms of preservation. Certainly the historic YMCA

building must be maintained, and design strategies will grapple with different ways to engage this building that is currently isolated with only one active façade. The station building itself is an important icon that should be taken advantage of, but unfortunately its primary façade faces Main Street looking across to the parking lots under the elevated interstate. Interstate 95 presents huge problems with regard to the lack of street frontages and the site's tenuous connections to the rest of Downtown.



Figure 55: 17th Street Farmers Market

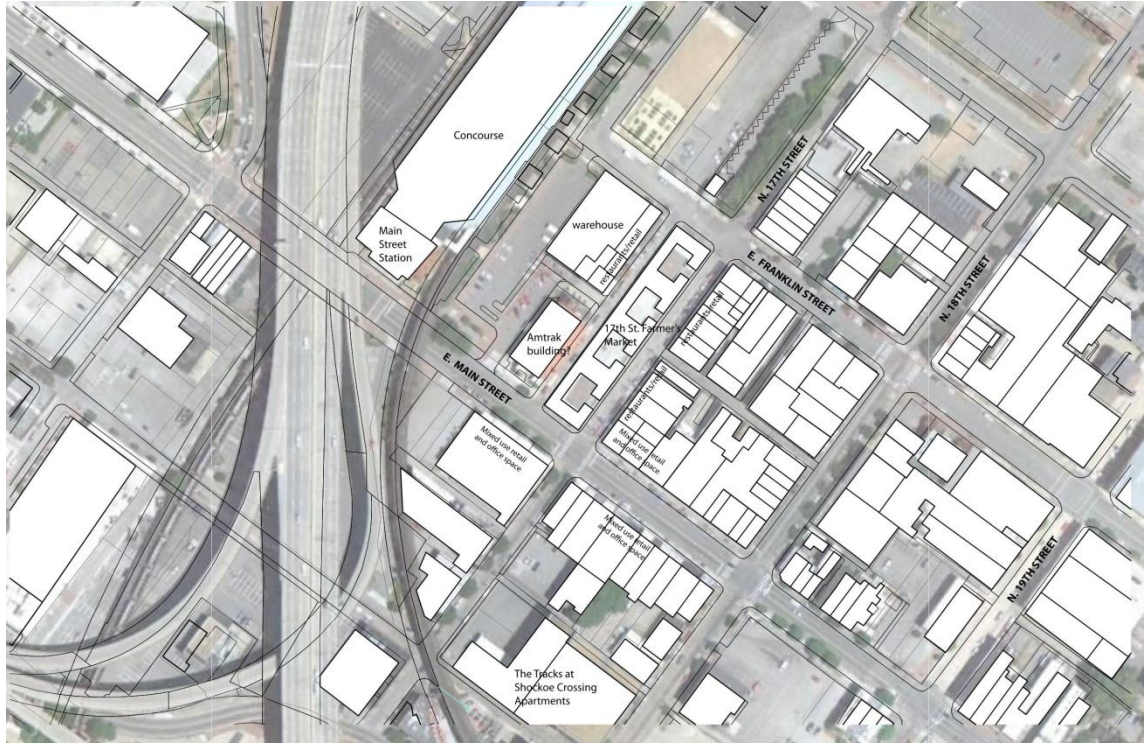


Figure 56: Main Street Station context plan



Figure 57. Station Site: land use diagram

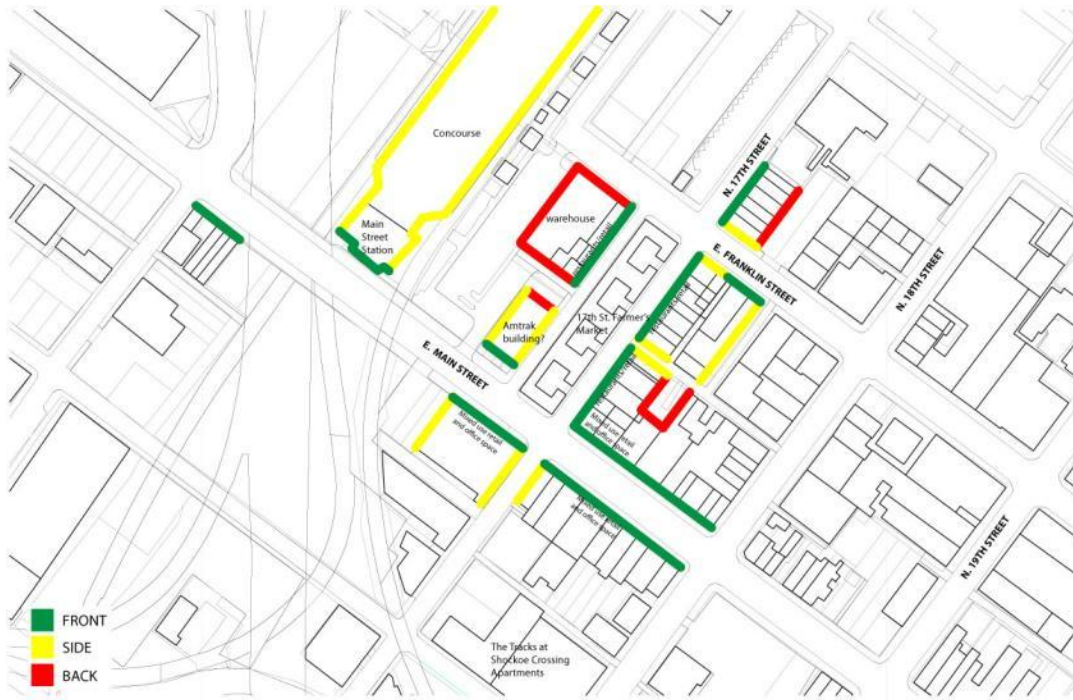


Figure 58. Station site: building frontages



Figure 59. Station site: street hierarchy

5. DESIGN RESPONSE

RESIDENTIAL SQUARE

The proposal for the Broad Street site consists of the residential square, an infill building along Broad Street, and two taller apartment buildings to the east and west of the square. Phase one would develop the square and surrounding residential buildings along with an infill building comprised of a grocery store, parking, and more apartments. The grocery store is an important catalyst for attracting new residents to this part of Downtown. The taller buildings of phase two would continue the success of the initial residential square, bringing a critical mass of people to the area which would have a significant impact on the Broad Street commercial corridor.

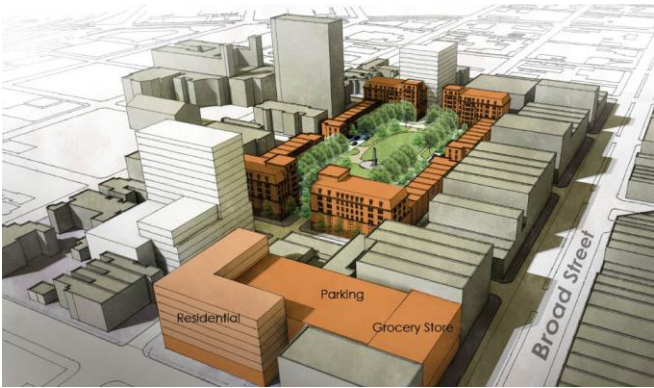


Figure 60. Residential Square: Phase 1



Figure 61. Residential Square: Phase 2

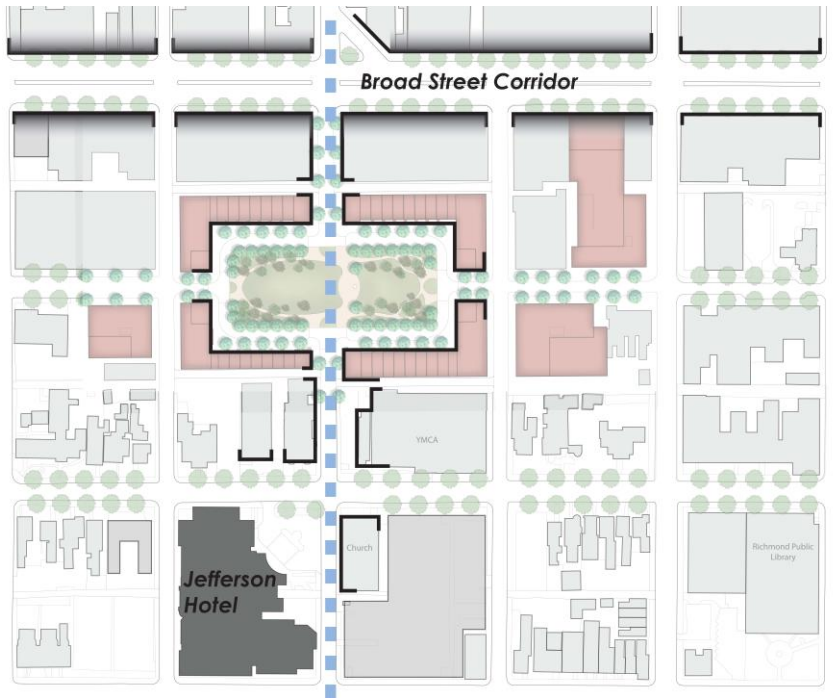


Figure 62. Residential Square: Jefferson Hotel connection

An important consideration for the design is the landmark Jefferson Hotel, located one block south of the site. The pedestrian experience moving north to the Broad Street corridor is enhanced by the park.

The infill strategy for the square uses a liner, which can be seen in the before and after figure ground drawings (Figure 63 and Figure 64). The new buildings defining the square re-orient and focus on Grace Street, which is enhanced as a pedestrian street and diverted one-way around the new square. The buildings on the north and south edges of the square are 3-story townhomes with parking in the back. On the corners of the square, strengthening the sense of enclosure and bookending the space are four 7-story apartment buildings (Figure 66) that frame the east and west entrances to the square.

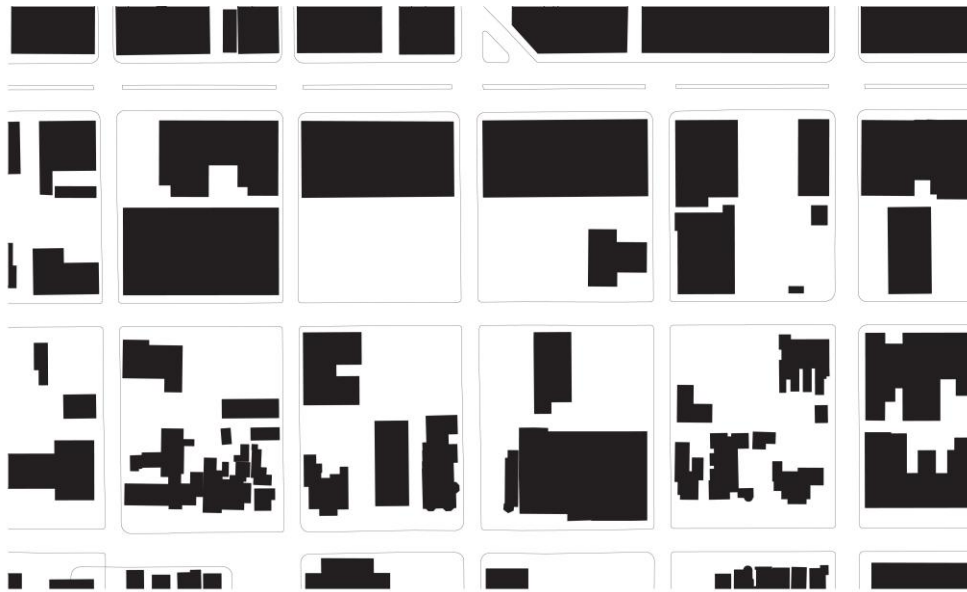


Figure 63. Residential Square: Figure ground existing



Figure 64. Residential Square: Figure ground proposed



Figure 65. Residential Square: Plan



Figure 66. Residential Square: Aerial from the south



Figure 67. Residential Square: Longitudinal section



Figure 68. Residential Square: Townhouse street view

The residential streets fronting the square are designed for the pedestrian. Car traffic is slowed by on-street parking and prominent crosswalk zones enabling the north-south flow across the square towards Broad Street. A buffer zone of stoops and private gardens shields the townhomes which activate the space and provide important “eyes on the street.” (

Figure 68)



Figure 69. Residential Square: Park view

The square is defined with an inner layer of trees, creating a clear boundary and sense of arrival. The park is designed for the everyday use of residents, with paths for walking dogs and exercise and open spaces for informal recreation. (Figure 69) Moveable seating is provided, and the larger lawn to the west is envisioned as a place for community events such as performances or film screenings. The positioning of a monument on the east/west axis emphasizes the importance of Grace Street, in the tradition of Richmond’s Monument Avenue, as a new pedestrian connector through the downtown.

CIVIC SQUARE

The strategy for the site in the downtown core creates an urban room opening to the north on Grace Street. (Figure 70) It has strong connections back to Capitol Square and the equestrian statue of George Washington which terminates Grace Street.

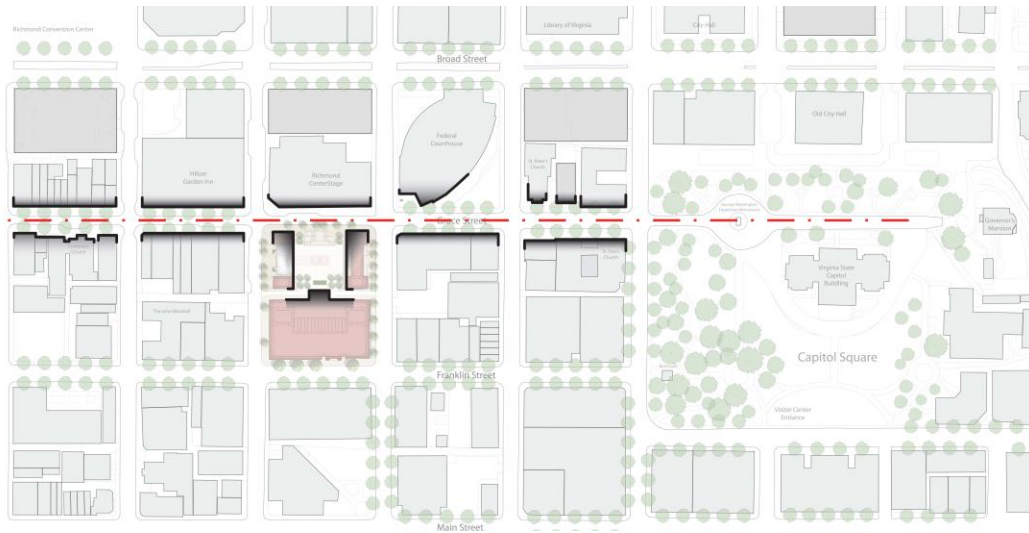


Figure 70. Civic Square: Grace Street civic connections

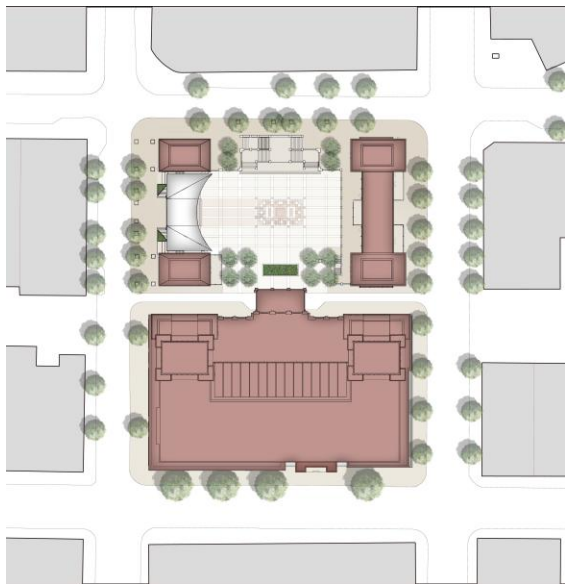
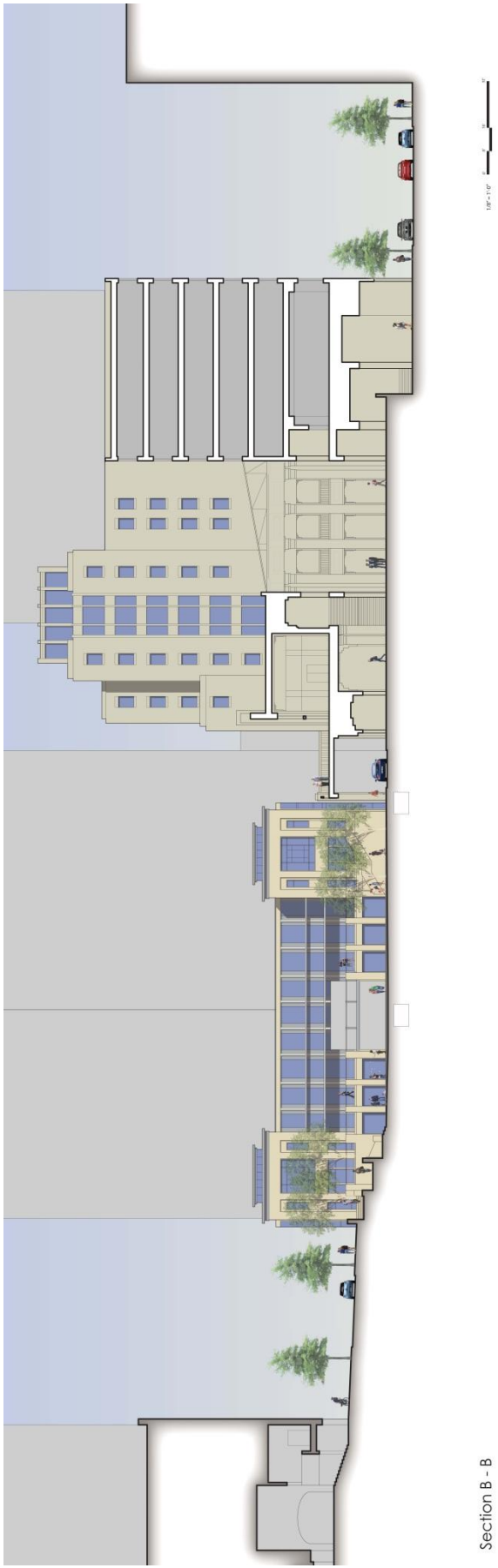


Figure 71. Civic Square: roof plan

The design is heavily influenced by two of the site conditions described previously – the 30’ grade change from the southeast corner to the northwest and the existing historic buildings on the site. The parking garage façade is preserved while a new hotel is constructed behind. The parking garage façade is used as the generator for the façade of the hotel, and its original purpose is retained as it becomes the entry for the new below-grade parking. (Figure 72) The hotel mediates the grade change as its main lobby opens onto the lower level of the public square. (Figure 74) The hotel is an important anchor to the square, bringing large numbers of visitors to the space. The inclusion of this private partner for the development of the city-owned land where the square is located is important for the economic viability of the proposal.



Figure 72. Civic Square: Aerial from the west



Section B - B

Figure 74. Civic Square: Transverse section



Section A - A

Figure 73. Civic Square: Longitudinal section



Figure 75. Civic Square: Entering the square from the southeast

Pedestrians entering the square from the south move into the alley between the hotel and enclosing pavilions. (Figure 75) The alley, which goes under the porte-cochere of the hotel, provides pick-up and drop-off service and is activated with hotel and pavilion street-level frontages. The smaller, more confined space expands dramatically to reveal the main civic room which features an interactive fountain in the summer and an ice rink in the winter. (Figure 76) Viewed in the distance, creating the western edge to the space is the “theater terrace” covered by a seasonal shading structure. The main space is paved for maximum flexibility of use with a pattern that reinforces the directionality and rhythm of the architecture.



Figure 76. Civic Square: View of main square level



Figure 77. Civic Square: View from the theater terrace



Figure 78. Civic Square: View of concert on theater terrace

The theater terrace, a multi-use series of stairs, benches, and landscaping, acts as an informal theater as people sit and relax in the shade, overlooking the everyday activities of the square. (Figure 77) At other times it is a more formal venue for outdoor performances, making this an active hub of the downtown and complimenting the performing arts center across the street. (Figure 78)

The linear pavilion to the east is anchored by two solid corner pavilions with a glass connector. An arcade through the ground level increases the porosity of the edge, allowing better pedestrian connection to the street. The uses in the pavilion include the relocated Richmond Visitor Center, a restaurant on the lower two levels, and on the upper level, an event space overlooking the square. Elevators from the below-grade parking bring visitors to the arcade level, further activating the lower square. In the pavilions flanking the theater terrace there are cafes, coffee shops, or bars that activate the street and square throughout the day and night.

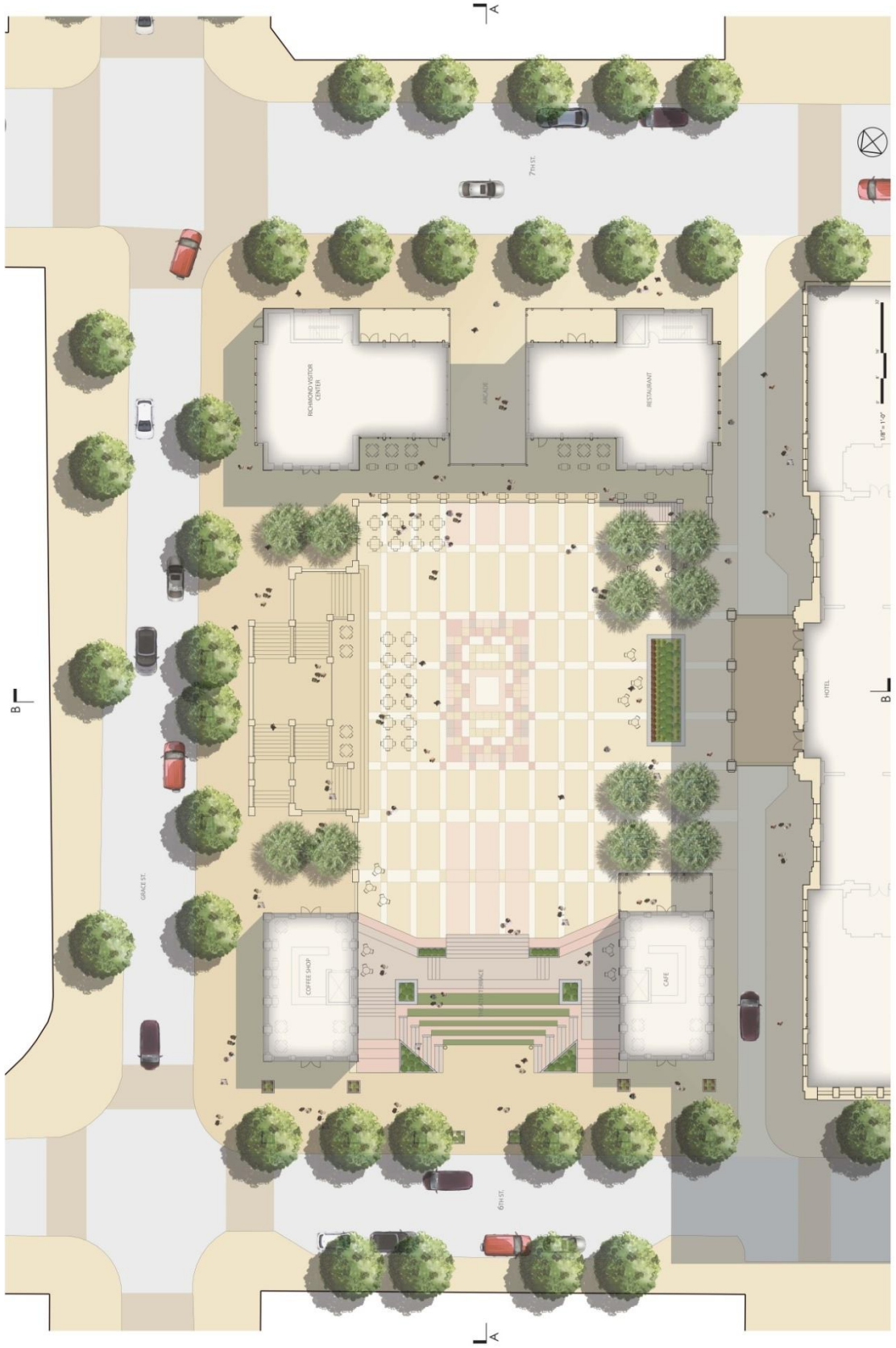


Figure 79. Civic Square: Plan



Figure 80. Civic Square: View of square and hotel from the north

The grade change on the site creates many design opportunities that enhance the experience of the square. The upper level is extended along the eastern pavilion, creating a restaurant seating area that overlooks the activity of the lower square. A graceful grand stair on axis with the hotel entrance facilitates the connection to Grace Street and the performing arts center. A deck from the southernmost pavilion flanking the theater terrace, along with the various terrace levels of the hotel, further activate the upper edges of the space.

This square is designed as the active and lively civic square that Richmond does not currently possess. It is a compliment to Capitol Square a few blocks west, which is the ceremonial space for the entire state of Virginia. This space would become instead, the public space for Richmond itself, acting as one of the most memorable locations in the city.

MARKET SQUARE

The site to the east of Main Street Station is largely undeveloped, consisting mostly of surface parking lots. A broader urban goal for the proposal is to strengthen the connection between Main Street and Broad Street along 17th Street. According to the master plan, Franklin Street will be reconnected underneath the train shed, which is scheduled for redevelopment. The northern end of the proposal consists of mixed-use commercial/residential buildings wrapping structured parking. (Figure 82) 17th Street will have a revitalized retail character as it leads to the market square.

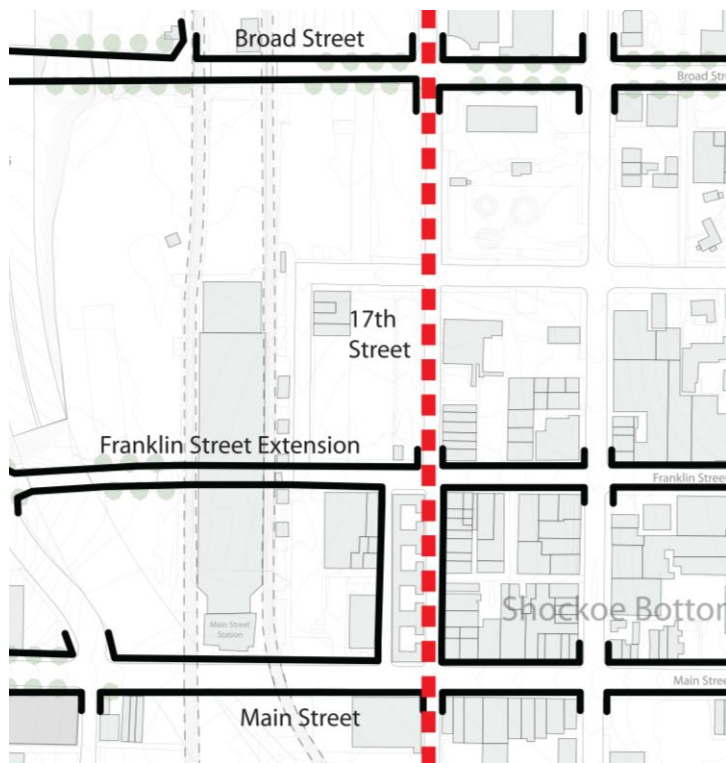


Figure 81. Market Square: Broad St. and Main St. connection

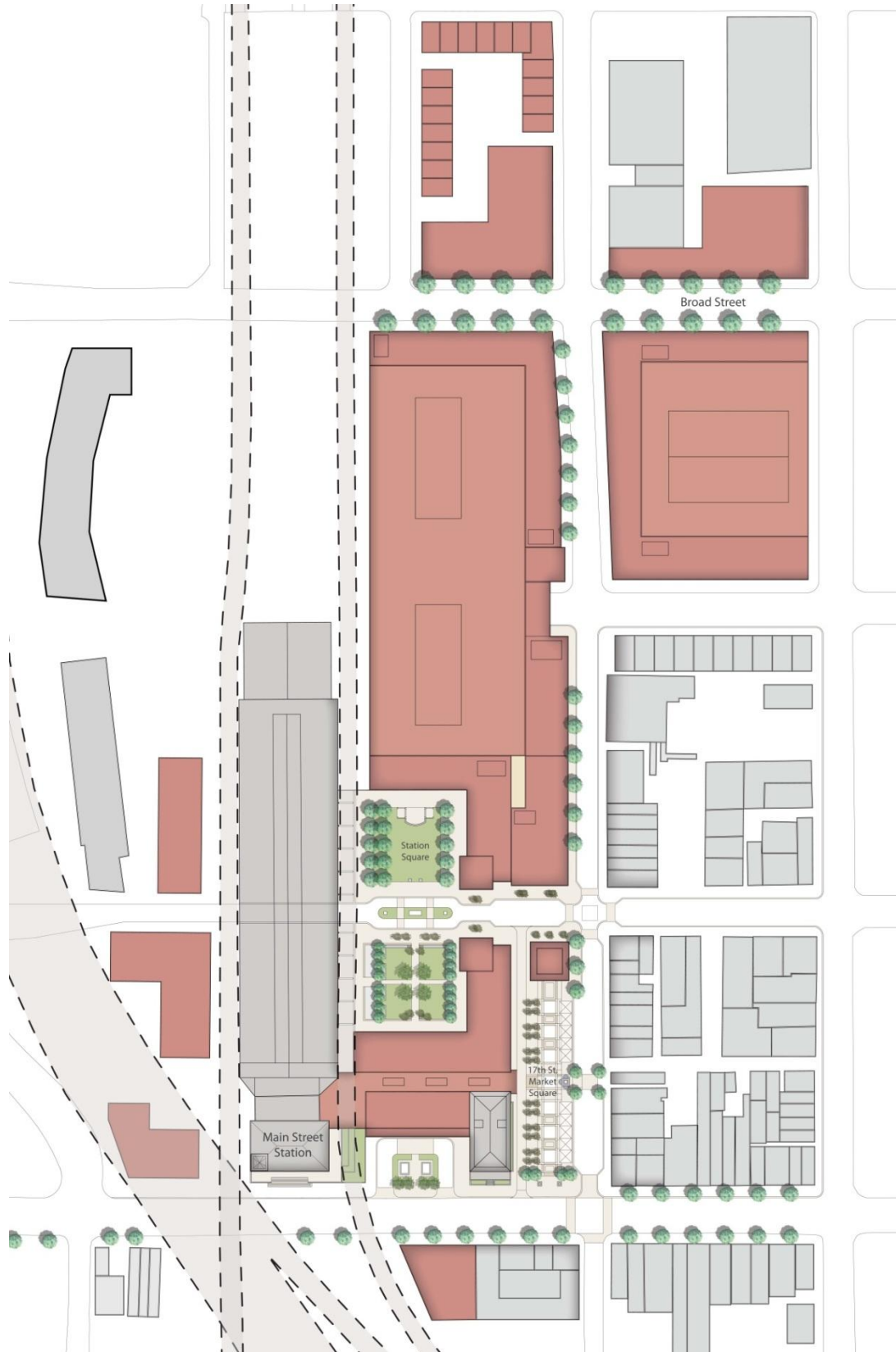
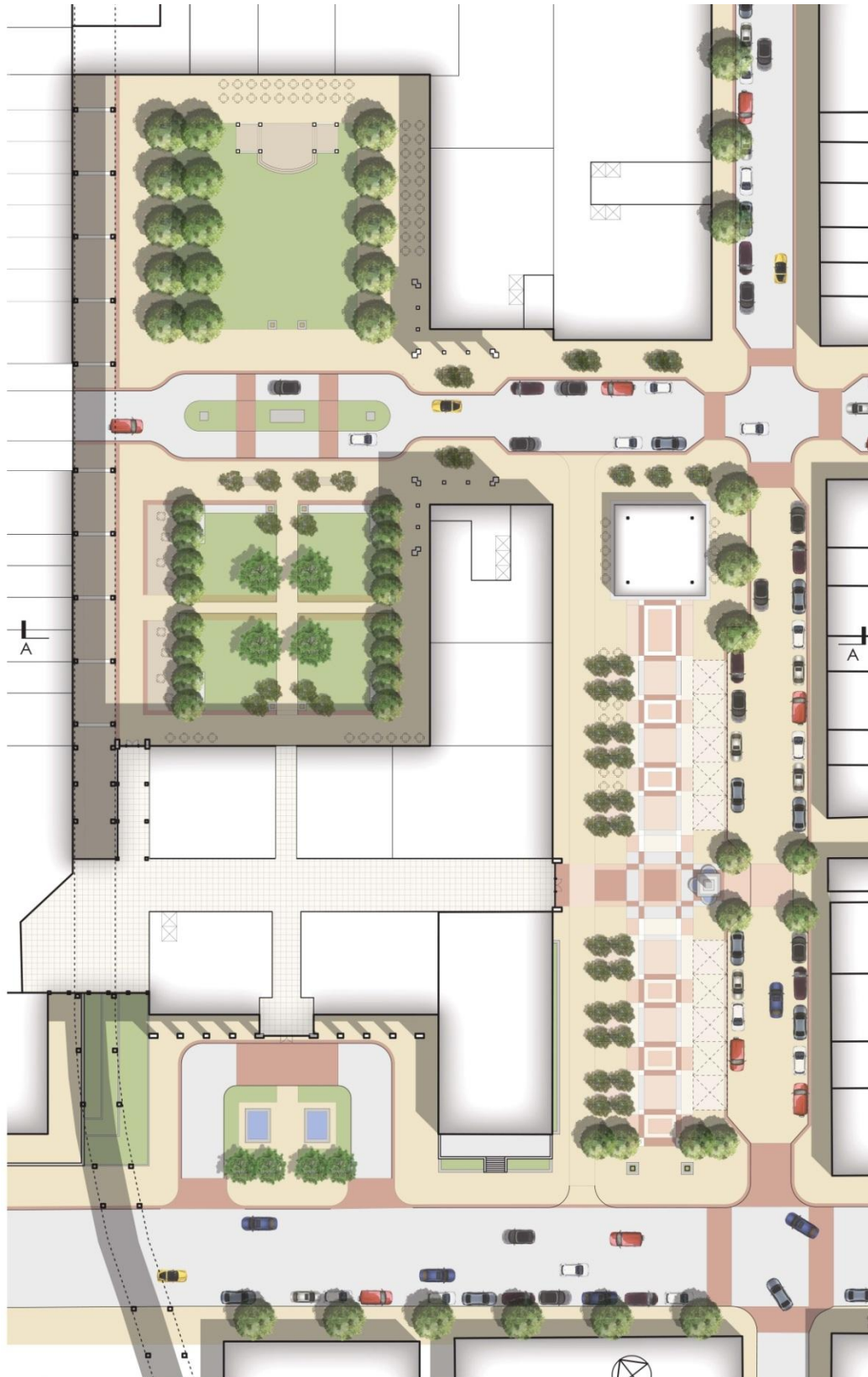


Figure 82. Market Square: Site plan



SITE PLAN - MARKET SQUARE

Figure 83. Market Square: Detailed plan



Figure 84. Market Square: Aerial view from the south

The new construction to the south engages with the historic YMCA building, forming a new composite building that defines urban space on three sides. The building is intended as an expansion for Main Street Station as its volume of rail traffic is expected to increase. To the south end of the building is a drop-off area for the station, moving that function off the street. Visitors to the station would pass into an east/west arcade housing station services, restaurants and retail that would lead west to a new connection to the historic train station, east towards the market square, or north towards a new square flanked by the train shed.



Figure 85. Market Square: Transverse section

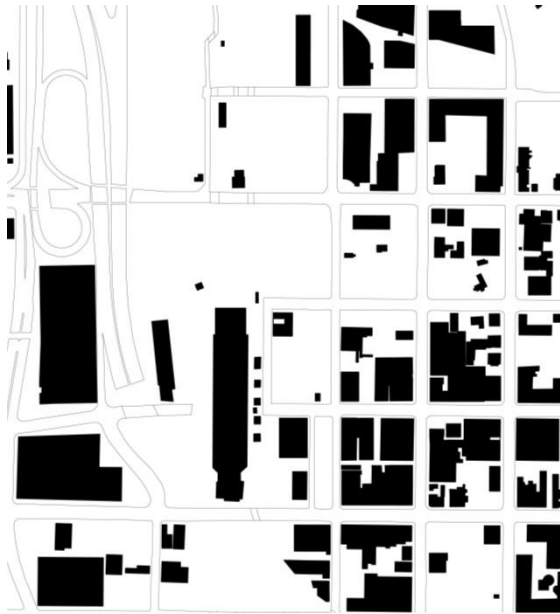


Figure 86. Market Square: Figure ground existing



Figure 87. Market Square: Figure ground proposed

The new square is more heavily landscaped, acting as an amenity for the office and residential uses overlooking. It is closely linked to the primary market square but has its own clear threshold. This proposal suggests that the train shed redevelopment project being undertaken by the city should open the ground level of the shed as a permanent market. These market stalls would open onto the square, under the existing train tracks, further activating the space and becoming a destination for visitors and locals alike. (Figure 88) Maintaining the edge with the existing rail infrastructure is an important connection back to the industrial heritage of the neighborhood.



Figure 88. Market Square: Market view under tracks



Figure 89. Market Square: Market day aerial

The historic market square is cleared of the existing pavilions, freeing the space for more flexible uses. 17th Street is kept open to traffic, slowed by paving and on-street parking. A new glass restaurant pavilion terminates the linear space. It is flanked by a row of trees and planting areas to the west and a line of new market structures to the east. The market structures provide permanent shelter for the larger vendors that arrive for the weekend farmer's market. On market days, smaller vendors set up temporary stalls on the west side, creating an intimate market street. The market square is strengthened as the entertainment, dining and nightlife hub for the city with expanded outdoor dining opportunities and spaces for informal gathering.



Figure 90. Market Square: Ground-level view

CONCLUSION

This thesis has demonstrated an approach by which Richmond, as well as other similar American cities, can revitalize its downtown through the design of new public squares that are carefully woven into the existing urban fabric and network of paths. The typological approach gives each square a unique identity and sense of place within the network as well as a clarity of program that is lacking in many U.S. squares. The three sites also demonstrate a variety of strategies for engaging with historic buildings. The residential square uses a liner to redefine the edge. At the civic square site an historic building is repurposed and integrated into a new building, and the market squares utilize an existing building as an entire edge to a new space.

While this is certainly a long-term proposal for Richmond, there is very real development possibility for each site. To the west of downtown, Virginia Commonwealth University is placing increasing development pressure on Monroe Ward and the residential square site. The civic square site is ripe for development because of its close connection to the performing arts center. And the undeveloped land around Main Street Station has seen unrealized development proposals in recent years.

Many such undeveloped downtown sites exist in mid-size U.S. cities that are just now recovering from their mid-20th century declines. The question is not if these sites will be developed, but when, and what the priorities will be. This thesis proposes that significant emphasis should be placed on an enhanced public realm, but clearly public squares do not provide the economic return of infill construction. In order for this enhanced network of streets and squares to become a reality in American cities, the value of this strong network must be understood and appreciated. Public squares are the hearts of cities, and the personal interactions that they sponsor will always be important because people will always be drawn to interact face-

to-face with other people. Public squares provide this forum for interaction that is one of the great advantages of city living. Social benefits aside, public squares have proven economic benefits as amenities that increase demand for real estate and spur new development.

This thesis has shown that the design of public squares, based on the proven, traditional principles of urban space-making, can create places where people want to be at all times of the day and throughout the year. But designing good urban rooms and strong pedestrian connections is only the first step. For this vision of a stronger, more legible urban network to be realized, public squares must be seen as an investment in the future. It is a future in which, inevitably, there will be more and more people living closer and closer together in dense urban areas. For this growing urban population, the public realm is not just an economic factor for redevelopment, but a factor that impacts the daily experience of their city.

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