RICHMOND DOWNTOWN PLAN

July 2009

RICHMOND DOWNTOWN PLAN

was created by:

2007- 2008

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The public planning process began in July 2007. The Plan was adopted by City Council in October 2008. Additional Amendments were adopted in July 2009.

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Downtown Richmond offers modern conveniences and charming historic neighborhoods along the banks of the James River.
image courtesy of SkyShots Photography

Virginia's Downtown

Downtown Richmond has been shaped by countless forces which have produced the extraordinarily historic, physically stunning city that exists today. The juxtaposition of dramatic topography, rapids and forests along the James River, an intensely developed City Center, and an abundance of well-preserved historic neighborhoods all contribute to Richmond's unique sense of place. In spite of Downtown's assets, much of the region's development activity has been occurring in the outlying counties and suburbs, thus draining economic capital away from the heart of the city. The City of Richmond seeks to continue recent momentum by realizing development potential and channeling it back into its historic center, thus legitimating its title as "Virginia's Downtown."

In order to achieve this goal, the City of Richmond has initiated an update to its Master Plan. During the summer and fall of 2007, City staff and the citizens of Richmond joined the town planning firm of Dover, Kohl & Partners and a team of experts in housing, transportation engineering, parks, and economic development in a public planning process. The resulting Richmond Downtown Plan reflects this wide range of input.

Downtown Richmond is uniquely situated at the fall line of the James River in Central Virginia, 110 miles south of Washington, DC and 85 miles northwest of Hampton Roads area. It is a center of transportation with I-64 and I-95 interchanging in the city, Richmond International Airport located nearby, and Amtrak train service passing through the city.

DOWNTOWN STUDY AREA

For the purposes of this plan, the Downtown study area boundary is defined by Shockoe Bottom to the east, I-95 to the north, Virginia Commonwealth University's (VCU) Monroe Park Campus and Oregon Hill to the west, and crosses the James River to include Manchester and Blackwell to the south. This study area encompasses a variety of neighborhoods and districts, each possessing unique characteristics and particular opportunities. This study area boundary expands upon previous plans and studies for the Downtown and crosses over the James River for the first time.

For planning purposes, the study area was organized into six districts, which were studied as individual neighborhoods contributing to a complete Downtown. They include Broad Street, which encompasses Jackson Ward and Broad Street districts; Virginia Commonwealth University and surrounding neighborhoods, which encompasses VCU, Monroe Ward, Oregon Hill, Gamble's Hill and Belvidere districts; City Center, which encompasses the State Capitol, VCU's MCV Campus, and the Virginia Bio-Technology Research Park, Central Office, and City Center districts; Manchester and Blackwell, which encompasses Manchester, Blackwell and the industrial district; James River, which encompasses the River and Canal Corridor districts; and finally Shockoe, which encompasses the Shockoe Slip and Shockoe Bottom districts. Unique qualities and challenges were identified for each district and were analyzed as part of a unified plan for Downtown.

Broad Street (A)
VCU & Downtown Neighborhoods (B)
City Center (C)
Manchester (D)
James River (E)
Shockoe (F)

The 2007 Downtown Plan identifies six districts within the study area; the black line represents the study area boundary.

First plan of Richmond; platted by Major William Mayo, 1737

William Byrd II, 1737
Richmondthenandnow.com

Pastoral View of Capitol, 1790s
Library of Virginia

Plan of Richmond, 1865

STUDYING THE PAST

As part of the planning process, it was important to understand the history and pattern of development of Downtown Richmond. This helped to reveal the physical, social, economic, and political forces that have shaped Downtown. This understanding of history also helped the team to understand the layered fabric of the city, and ultimately make responsible design decisions that honor Richmond's past.

17th and 18th Centuries

The Powhatan tribe established a village along the James River hundreds of years before the first European explorers arrived in 1607. This Native American population was soon overwhelmed by a new era of Western settlement, beginning in 1644 when the Virginia Colony established Fort Charles at the Falls of the James River. It took nearly 100 years before this English settlement was formally platted as a city. Richmond was not formally platted until the 18th century. This was due to the Virginia House of Burgess' Warehouse Act, which required inspection of all exported tobacco, thus making the falls of the James River a lucrative site for development. William Byrd II commissioned Major William Mayo to plat a formal settlement in 1737, and the city grid was laid out on top of the large plateau east of Shockoe Creek, adjacent to the navigable portion of the James River. This original plat was settled as Church Hill, where in 1775 Patrick Henry gave his "Give me liberty or give me death" speech in St. John's Church. Richmond soon grew from a tobacco trade center to a distribution point for a wide range of goods, including flour, iron and most notoriously, slaves. It is believed that over 300,000 slaves were sent from Shockoe Bottom to work in the Deep South. Shockoe Bottom serves as the burial ground for thousands of slaves.

Development of the area west of Shockoe Creek, above the fall line of the James River, occurred later as Richmond grew. In 1785, George Washington ordered canals to be dug along the James River to create a continuous navigable waterway connecting the western reaches of Virginia to the Chesapeake Bay. Warehouses and mills were built along the canals, extending Richmond westward. During the Revolutionary War, the Virginia General Assembly was moved from Williamsburg to Richmond and was located upon Shockoe Hill, overlooking the James River. Thomas Jefferson is credited with the design of the building, which was modeled after a Roman Temple in Nimes, France, the Maison Carree.

19th Century
As a result of its location at the meeting of the James River and the Kanawha Canal, Richmond became home to some of the largest manufacturing facilities in the country, including iron works and flour mills, the largest facilities of their kind in the South. Canal traffic peaked in the 1860s and slowly gave way to railroads, allowing Richmond to become a major railroad crossroads. Downtown Richmond eventually became the site of the world's first triple railroad crossing.

Due to its strategic position along the canal and railroad lines, as well as its impressive manufacturing capabilities, Richmond was chosen as the Capitol of the Confederate States of America in 1861. The Tredegar Iron Works played a key role in the Confederate cause, supplying armor for the CSS Virginia, the world's first ironclad used in war, as well as much of the Confederates' heavy ordinance machinery. At the end of the Civil War, Richmond was captured and the retreating Confederate soldiers left the city to burn, destroying over twenty-five percent of the city's buildings and Mayo Bridge.

In spite of defeat and the destruction of much of the city by fire, Richmond recovered quickly from the Civil War and enjoyed relative economic prosperity during Reconstruction. In the 1870s and 1880s, cigarette manufacturing and a newly developed electric trolley system created jobs and real estate opportunity in the city. This streetcar system fueled the expansion of Richmond to the north and west, and spurred the development of a number of streetcar suburbs.

During this reconstruction and development period, many African Americans, including ex-slaves, soldiers, and people who had gained their freedom before the war, moved into the neighborhood known as Jackson Ward. Here they developed a thriving "city within a city" where residents enjoyed an interdependent economy of restaurants, shops and services. Here Maggie Walker chartered and ran the first female-operated bank in the United States, and performers such as Ella Fitzgerald, Bill Robinson, and Duke Ellington played on 2nd Street, winning the Ward the title the "Harlem of the South."


Gas Light and Coke Company, 1855


Evacuation of Richmond, 1865
Richmondthenandnow.com


Triple Train Crossing, 1926
Richmondthenandnow.com


Richmond Trolley, 1900s
Richmondthenandnow.com


Tobacco Row, 1900s
VA Department of Historic Resources


Maggie L. Walker, 1900s
Richmondthenandnow.com

20th Century

At the turn of the century, Richmond grew as a center of commerce, government and entertainment, with the Federal Reserve Bank and Philip Morris moving to the city, and the construction of a number of theaters. In 1910, the independent cities of Manchester and Richmond agreed to consolidate as one city in order to allow free movement of goods across the James River. With this consolidation, the James River's role changed from one of a barrier between two cities to that of a centerpiece of an expanded Richmond.

Shopping on Broad Street, 1930s
Image courtesy of Dementi Studio

Downtown Expressway, 1970s

Downtown Richmond, 1980s

Adaptive reuse, Shockoe Bottom, 1990s

Richmond's economy continued to flourish through the 1930s and the Great Depression, due to its central role in the tobacco industry. In World War II the city became the fastest growing industrial center in the United States, producing many of the supplies used in the war. During these years, Richmond served as a center of retailing for the Southeast. Prominent department stores such as Miller & Rhoads, Thalhimer's, and Sears & Roebuck kept Broad Street bustling with shoppers.

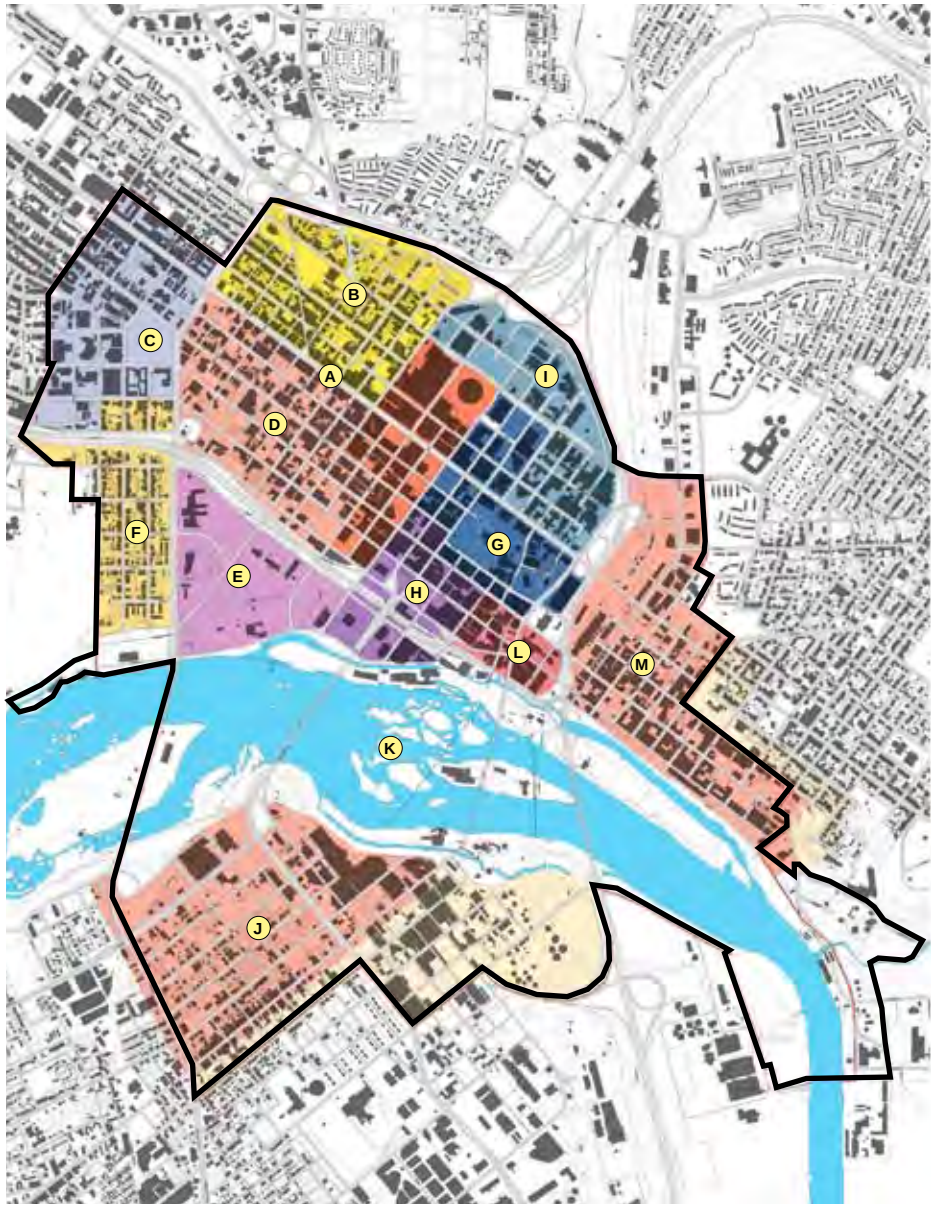
In the 1950s and 1960s, the interstate highway system was constructed, bringing I-64 and I-95 into the heart of Richmond, and fueling suburban expansion. Also at this time, the city experienced a boom in the office market, with over 700 buildings built Downtown. In 1968, Virginia Commonwealth University was created by uniting Richmond Professional Institute and the Medical College of Virginia, soon to become a major player in Downtown's development. In the 1980s, the City of Richmond began efforts to revive its office and government-intensive Downtown with tourism, recreation, retail, and housing. As part of this effort the Greater Richmond Convention Center and the 6th Street Marketplace were constructed. While the Convention Center continues to attract visitors to the area, the 6th Street Marketplace's success was short-lived. One of the many "festival marketplaces" developed by James Rouse of the Rouse Company, the 6th Street Marketplace opened in 1985 as a retail, restaurant, and entertainment complex. When Thalhimer's and Miller & Rhoads closed their Downtown stores in the early 1990s, the economic vitality of the 6th Street Marketplace rapidly declined. By 2003 the majority of the marketplace was demolished and portions of 6th Street were reopened to vehicular traffic.

In the 1990s, the tobacco industry had largely abandoned Richmond, leaving behind a hefty stock of brick warehouses and manufacturing buildings. These magnificent buildings became the focus of an innovative adaptive reuse program; many have been converted into apartments and urban lofts. This wave of historic preservation and infill development has had an effect throughout the city, and all types of buildings from abandoned processing plants to single-family homes are being renovated and restored for a new generation.

DOWNTOWN DISTRICTS

Downtown Richmond is comprised of many unique neighborhoods that have particular assets and challenges. As such, it was essential that the design team understand the diverse characteristics of each neighborhood in order to make appropriate recommendations for those areas. Organizing the Downtown into six districts, the team analyzed and visited each district. The six districts encompass fourteen City identified neighborhoods. Many of the districts overlap and contain a mixture of prominent corridors, historic urban neighborhoods, and lasting cultural institutions. The following descriptions were taken largely from the 2004 Downtown Plan and were used by the team to better understand each neighborhood.

- (A) Broad Street Corridor
- (B) Jackson Ward
- (C) VCU's Monroe Park Campus
- (D) Monroe Ward
- (E) Gamble's Hill
- (F) Oregon Hill
- (G) City Center
- (H) Central Office
- (I) MCV Campus / Virginia BioTechnology Research Park
- (J) Manchester
- (K) James River
- (L) Shockoe Slip
- (M) Shockoe Bottom



The 2004 Downtown Plan identified districts within the study area; these districts were incorporated into the 2007 Master Plan update. The black line represents the study area boundary for the 2007 Plan.


Vacant storefonts and upper floors


Specialty retail and offices


Rehabilitated historic buildings


VCU on Broad Street


Historic Empire Theatre


Revitalized buildings

BROAD STREET

Broad Street

Broad Street is Richmond's grand avenue and was designed as the widest street Downtown. Today it remains its primary image corridor and major spine for transit and pedestrian/vehicular traffic running east-west through the central business district and is remarkably intact west of 5th Street. It serves as the front door of state government, both campuses of Virginia Commonwealth University, City government, and the region's tourism industry. The ten-block stretch of historic commercial buildings between 4th and Belvidere Streets, many with residential uses in upper floors, combined with historic and contemporary commercial, civic, and institutional buildings, reflect both the diversity and vibrancy of Downtown.

The intersection of Belvidere and Broad Streets is a major gateway focal point for Downtown and the entire City. Significant focal points occur at Adams and Broad Streets and 17th and Broad Streets. The eastern section of Broad Street, from 7th Street to Interstate 95, is a corridor of monumental and signature buildings, emphasizing the presence of state government and major institutions. Broad Street is also a primary transportation corridor, linking government and commercial nodes, and serving large numbers of pedestrians, automobiles and buses.

Several positive trends are being set along the Broad Street corridor. For example, west of 3rd Street, Broad Street is evolving as an active pedestrian-scaled, mixed-use environment of low-rise buildings. Various groups such as the Downtown Neighborhood Association, Broad Street Coalition and First Fridays have also contributed to recent improvements.

Further east on Broad Street, recent streetscape and infrastructure improvements have been completed. This was done through the creation in 2001 of the Community Development Authority (CDA), which received its funds through a Special Assessment of participating Broad Street and Grace Street properties and businesses. The funds also paid for the renovation of the Sixth and Franklin historic parking deck and two new surface lots on Grace Street and on Broad Street.

Jackson Ward
Jackson Ward is one of the truly mixed-use urban neighborhoods in Richmond. It is home to nearly 1,400 residents, most of whom live in Italianate style one- and two-family row houses. The neighborhood also contains a number of churches, civic and cultural facilities, businesses, and several light industries. Jackson Ward enjoys close proximity to the City Center, although the adjacent Greater Richmond Convention Center over powers the neighborhood's smaller-scale historic structures.

Jackson Ward has a rich history as the hub of one of the nation's strongest African-American business, entertainment, and residential communities in the first half of the 20th century. Recent efforts have begun to return the district to these days of grandeur. While most rehabilitation activity in the district is focused on one- and two-family residences, the Richmond Dairy building was redeveloped as 113 residential apartments in 2000. Other residential projects include Jackson Commons, a planned development of new single-family homes. In addition, upper-floor residential conversions and new ground floor retail are emerging along Broad Street.

New investment within the district has not been limited strictly to residential uses. Smaller commercial establishments have been developed, including restaurants and neighborhood-scaled service businesses. These efforts have paved the way for larger projects, including plans for a hotel and a renovated Hippodrome Theatre on 2nd Street.


Historic rowhouses in Jackson Ward


Hippodrome Theater


Historic preservation in Jackson Ward


Maggie L. Walker House


Bill "Bojangles" Robinson Statue


Sixth Mount Zion Baptist Church


Historic apartment buildings


Monroe Park


Adaptive reuse

Neighborhood restaurants and retail


Jefferson Hotel


VCU Monroe Park Campus

VCU AND DOWNTOWN NEIGHBORHOODS

Virginia Commonwealth University

The Virginia Commonwealth University (VCU) Monroe Park Campus is located both east and west of Belvidere, generally between Cary and Broad Streets. In addition to the campus, it contains a mix of institutional, commercial, and residential buildings. The campus is characterized by its high density land uses and substantial pedestrian activity. There are several National Register Historic Districts in the area, including Monroe Park and parts of West Franklin Street.

Virginia Commonwealth University has renovated, and occupies as offices, several blocks of former residential structures along Franklin Street. Monroe Park is a major focal point of the campus and consists of seven acres surrounded by midrise and signature buildings. Virginia Commonwealth University continues to build major facilities along Broad and Belvidere Streets, two primary Downtown corridors. Since 1997, Virginia Commonwealth University has increased its physical presence on Broad Street with the completion of a sports arena, an administrative building, a sports medicine building, two academic buildings, a second parking structure, and two student housing buildings. VCU and private development have added vibrancy to this section of Broad Street with new ground floor retail. The campus recently expanded east of Belvidere Street with the construction of a new School of Business building and an additional building for the School of Engineering.

Monroe Ward

Monroe Ward is bounded by Broad Street on the north and the Downtown Expressway on the south. Belvidere Street is its western boundary, with 3rd Street north of Franklin Street and 5th Street south of Franklin Street comprising its eastern edge. The area is a truly mixed-use neighborhood, with a variety of residential densities, several historic buildings, a cluster of civic institutions, and office and commercial uses. Franklin Street has a unique identity and scale created by a high concentration of civic and institutional uses. The neighborhood represents one of the greatest opportunities to expand the housing market and the types of residential building types available Downtown. It also contains numerous sites and buildings that present opportunities for development and adaptive reuse; vacant lots and surface parking lots are prime locations for infill development.

Gamble's Hill
Gamble's Hill is bounded by Belvidere Street on the west, the Downtown Expressway on the north, 7th Street on the east, and Tredegar Street and the canal on the south. The district is an important part of the overall image of Downtown. It is highly visible from the Lee Bridge when crossing the river, and from the base of the hill along the river and canal. Moreover, the district offers some of the most outstanding views of the James River. In contrast to the dense urban fabric of most of Downtown, Gamble's Hill consists of large-scale buildings and green lawns. Its dominant feature is the headquarters complex of NewMarket Corporation.

Oregon Hill
The Oregon Hill neighborhood is located south of Virginia Commonwealth University. It is bounded by Cary Street on the north, Belvidere Street on the east, the bluff above the James River to the south, and Hollywood Cemetery to the west. Oregon Hill is a small, residential neighborhood containing primarily wood frame, single-family detached homes, along with supporting commercial and institutional uses.

Samuel P. Parsons Park and the Oregon Hill Linear Park border the neighborhood on the east, and provide a buffer from Belvidere Street. The location and topography of Oregon Hill enable good views of the river. The combination of parks and enhanced pedestrian connections provide a linkage between Monroe Park and the James River. The entire neighborhood is within a Virginia Landmarks Register and National Register Historic District, however, it is not within a City Old and Historic District.


NewMarket Corporation Headquarters

Tredegar Iron Works


Lee Bridge with footbridge to Belle Isle

Oregon Hill streetscape


Typical Oregon Hill houses


Hollywood Cemetery lies to the west of Oregon Hill


Richmond Coliseum


Greater Richmond Convention Center


Intersection of Grace Street and 5th Street


Signature office buildings


Riverfront Plaza office buildings


Historic office buildings

CITY CENTER

City Center

The City Center District is centered on Broad Street, and incorporates Downtown convention, cultural, and entertainment areas into a cohesive whole. As implied by its name, City Center is the center of Downtown. It is surrounded by a wide range of uses and diverse development character, from single-family dwellings in Jackson Ward to high-rise office towers in the Central Office District. Key elements of the City Center are the concentration of tourism and entertainment venues. Tourist traffic generated by the Greater Richmond Convention Center, Richmond Regional Visitor Center, Coliseum, and Center Stage already makes the northern portion of the City Center District an active, high-profile area. There is a need for higher level retail centers and businesses in the area to facilitate activities when the Convention Center is not in use.

There is a concentration of fine, early twentieth-century architecture with interesting details, particularly along Grace Street, which also possesses a strong, pedestrian-scaled character. Grace Street suffers from a high vacancy rate and a lack of street-level activity, but upper-level residential development and improvements to the surrounding area should increase the desirability of these retail spaces, and on-street parking should be reintroduced.

Central Office

The Central Office District contains the majority of Richmond's high rise office buildings, most of which are over 15 stories tall. The district consists primarily of corporate and professional offices, and has a high level of employment and resulting pedestrian activity at many locations. However, it contains only modest amounts of street level retail and service uses. Residential uses and special events help to diversify the district, but street level activity generally diminishes after 5 p.m.

Some of the newer buildings in the district are located along the river and are isolated and have no relationship to streets. This variation in character is accentuated by the fact that the district straddles the Downtown Expressway. Measures should be taken so that signature buildings are created Downtown to define the Richmond skyline. Pedestrian connections to the Canal Corridor and adjacent James River have been improved with the continued development of the eastern portion of Brown's Island.

MCV Campus / Virginia BioTechnology Research Park
Virginia Commonwealth University's MCV Campus and the Virginia BioTechnology Research Park are located at the northeast corner of the City Center. VCU's MCV Campus contains buildings with a variety of heights, scale and architectural character. An enclosed pedestrian walkway network connects many MCV Campus buildings above street level.

The Virginia BioTechnology Research Park continues to expand and grow. This investment is a welcomed addition to the Downtown and it is important for future building. As the campus evolves, it should include a mix of uses to ensure an active street life for employees. As planned, it has a corporate office park character, with a series of multiple-story office buildings and parking garages that lack ground floor retail or other uses. Virginia BioTechnology Research Park buildings constructed to date do not exhibit a strong relationship to the street given the minimal number of entrances and their single use.

Other uses in the district include several prominent historical tourist attractions collectively identified as Court End including the Valentine Richmond History Center, the John Marshall House and Museum, and other museums. The majority of them are concentrated at the eastern end of Clay Street. On the northern edge of the district is the Downtown campus of J. Sargeant Reynolds Community College, which has instructional links with Virginia Commonwealth University and the Virginia BioTechnology Research Park.

State Capitol
The Capitol District includes the Virginia State Capitol, the Library of Virginia, courts buildings, and numerous other state and City government buildings, all within a five minute walk of one another. The district contains pockets of street-level commercial uses along Broad, Main, 7th and 8th Streets. The district has a high density of employment and a high volume of tourists; however, compared to many other parts of Downtown, there is little diversity of land use in the district.

The State Capitol is an internationally significant historic building. While located on a hilltop, the once prominent views of the stately structure are today blocked by adjacent buildings. There are few good views of the Capitol from surrounding streets, and prominent views from the south are blocked by major buildings south of Bank Street. The district derives much of its character from contemporary office buildings, many of which lack the architectural quality typical of older buildings in the area.


MCV Campus


New BioTech facilities


West Hospital


Old Richmond City Hall


Virginia State Capitol


Virginia State Capitol


Central United Methodist Church


Vacant storefronts on Hull Street


Hull Street


Prominent historic buildings on Hull Street


Industrial buildings


Historic warehouse

MANCHESTER

Manchester and Blackwell lie south of the James River and are located on either side of Hull Street and extend to Cowardin Avenue. The Lee, Manchester, and Mayo Bridges provide the most direct vehicular access between Downtown and these neighborhoods. The Mayo Bridge, which connects 14th and Hull Streets, is also a major commuting route between Downtown and the residential areas south of the river. As such, Downtown image corridors and gateways from the south originate in Manchester and Blackwell. Portions of Hull Street need to be rebuilt to better connect these neighborhoods. Renovation and rehabilitation are beginning to take hold in Blackwell.

The area southwest of Commerce Road is within a conservation and redevelopment area. This area is a mixed-use neighborhood, characterized by historic homes, a number of churches, commercial structures, and corporate offices near the James River. Many of the homes and commercial structures in the area are vacant or in need of significant improvements. There are many vacant lots due to extensive demolition in Manchester.

Northeast of Commerce Road is a primarily industrial and heavy commercial area. Recent residential and office activity within the area suggests that long range opportunities should be explored. The planned courthouse expansion represents a civic devotion to the area and the renovated Plant Zero facility provides an outlet for artists and creative thinkers. The existing development pattern and street network present both opportunities and constraints for redevelopment. Much of the Manchester District, including both the industrial area and residential/commercial area, was listed on the National Register of Historic Places in 2000.

The James River serves as both a linkage and a dividing element between the Manchester District and the rest of Downtown. Pedestrian links such as the Richmond Riverwalk provide a continuous route connecting the Floodwall Walk in the Manchester District to the Canal Walk on the north side of the James River via Belle Isle and Mayo Island. Dramatic views of the Downtown skyline can be experienced from the Manchester District.

JAMES RIVER

The James River is a dominant factor in Richmond's past and key to the future of Downtown. It is the central element of Downtown, and bisects the study area. The James River District encompasses the river, its islands, and land on both sides of the river from the Henrico County line to Hollywood Cemetery. Much of the district is a combination of public open space, either natural or landscaped, concentrated on the islands. There are also significant developed areas, mostly under private ownership and used for commercial purposes. The district includes portions of the Canal Walk and surrounding private land. Much of the district is currently zoned industrial and contains active industrial uses. Railroads and adjacent development patterns limit public access along much of the river. Street access, in particular, is very limited. The James River floodwall is an important feature of the district, providing public use opportunities, but limits riverfront access and views. The four bridges across the James River within Downtown provide public visibility of the river and much of the district, give the river a high profile, and represent Downtown gateway opportunities. The Mayo Bridge provides access to Mayo Island and enables fishing from its sidewalks. The district contains historic structures that convey the diverse history of the riverfront. The Virginia Capital Trail, a partnership of the Virginia Department of Transportation and the Virginia Capital Trail Foundation, is being built along the Kanawha Canal and its continued development will help to provide increased access to the river.

The Canal Walk extends from the Tredegar Iron Works area to 17th Street, linking portions of the James River, Gamble's Hill, Downtown Core, Shockoe Slip and Shockoe Bottom districts. The canal is a linear feature that strongly contributes to the structure and function of Downtown. Enhancing the value of Downtown's greatest asset– the James River– the Canal Walk appeals to residents, workers and tourists alike. The historic nature of the canal system itself has allowed the Canal Walk to become an educational resource as well. The Canal Walk provides a truly unique space Downtown for recreation, leisure and special event activities. Walkways on both sides of much of the canals and several larger open spaces provide a continuous pedestrian environment that is attractive, comfortable, and dynamic. This attractive setting has served as a catalyst for the redevelopment of adjacent properties. In addition to the Canal Walk, the Virginia Capital Trail, a 54-mile trail that will link Williamsburg and Richmond, is currently under construction and will run parallel to the Kanawha Canal, which will extend public access to the full length of the restored canals in Downtown.

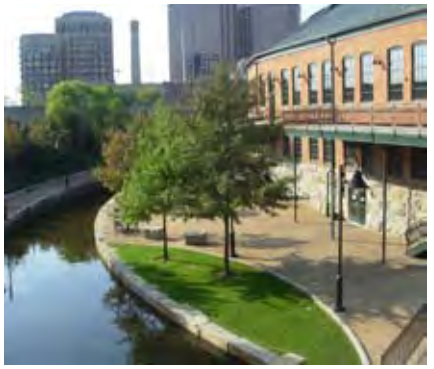

James River aerial


Residents enjoying the rapids


James River rapids with railroad remains


Mayo Bridge


Haxall Canal


Canal Walk


Cary Street


Historic buildings, before restoration


Historic buildings, after restoration


Cast-iron district

The Berkeley Hotel

SHOCKOE

Shockoe Slip

The Shockoe Slip area is bounded by 12th Street on the west, Interstate 95 on the east, Main Street on the north and the floodwall on the south. The area is characterized by three- to five-story brick buildings, most of which were originally constructed for warehouse purposes and have been the subject of adaptive reuse. It contains both National Register and City Old and Historic Districts.

Since revitalization efforts began in the early 1970's, Shockoe Slip has evolved as one of the predominant restaurant, entertainment, office and residential districts in Downtown. The ambiance of Shockoe Slip plays a significant role in attracting tourists and investment. The majority of the area is subject to design controls through designation as a City Old and Historic District. The cobblestone streets, slow-moving traffic, and attractive architectural detail in the district create a pleasant, pedestrian-oriented environment. Much of the Canal Walk functions as an extension of Shockoe Slip, but portions remain physically separated by the Downtown Expressway.

The charm and character of Cary Street that everyone admires is the result of hard work, dedication, and investment in the area by business and property owners. The Historic Shockoe Partnership has worked for many years to enhance this environment with street improvements, historic lighting, street trees, flower baskets and other amenities. While much has been done to improve the area, business and property owners continue to have concerns about the availability of parking. A shared parking strategy should be promoted and a valet parking service reconsidered. Plans are underway for the development of a museum and mixed use building at 14th Street and Cary Street; the site of the original Virginia Capitol.

The successes of Cary Street and the entire Shockoe Slip area should be expanded to other districts. The area is a great model for historic rehabilitation, adaptive reuse, and walkability.

Shockoe Bottom

Shockoe Bottom is situated at the eastern edge of Downtown. It is defined by Interstate 95 on the west, the natural topography and the edge of Church Hill on the northeast, and the James River on the south. On the north, it transitions into the Shockoe Valley industrial area along Oliver Hill Way (17th Street). It extends east to Great Shiplock Park and includes all of the Tobacco Row area. It serves as a transitional area between the intense development west of Interstate 95 and the residential neighborhood of Church Hill. It contains a mixture of land uses, resulting primarily from departure of many industrial uses during the past 20 years, and adaptive reuse of structures for housing, restaurants, retail shops, art galleries, and studios.

The character of Shockoe Bottom is defined primarily by this eclectic mixture of uses in two and three story brick structures with limited setbacks from the streets. In addition, there are large historic warehouses, extending from Tobacco Row to the former Richmond Cold Storage facilities. The area has a distinct urban character, consistent with its history as the oldest part of Richmond. This character has been the driving force behind the growth and investment experienced in "the Bottom" in recent years. Shockoe Bottom is a place of choice for entertainment, housing, and business activities. There is a growing residential population in Shockoe Bottom. Tobacco Row provides extensive opportunities for continued adaptive reuse for residential, office, and commercial purposes.

Land under the interstate is transitioning from undeveloped property into a linkage with Shockoe Slip and the Canal Walk. Much of the Broad Street frontage through Shockoe Bottom is used for surface parking. It is averaged that 100,000 to 150,000 cars travel on Interstate 95 everyday, making it important to improve this image corridor. The current exit off of Interstate 95 into Downtown is not attractive. The exit should be improved, as it serves as a poor first impression of the Downtown, particularly on Oliver Hill Way. The blocks between Interstate 95 and 21st Street present opportunities to establish a front door on Broad Street for Shockoe Bottom and Main Street Station and to provide gateways to Church Hill, the MCV Campus, and Capitol Square.

In 2004, Shockoe Bottom was heavily damaged by flooding as a result of Tropical Storm Gaston. Shockoe Creek was overwhelmed by torrential rain and the City's drainage system was unable to handle the excess water. After the flood, a thick layer of silt and storm debris covered the streets. As a result of flood damage, 19 buildings in Shockoe Bottom were condemned and small business owners struggled to reopen. Since the flood, much of the revitalization of Shockoe Bottom has stalled, as developers are hesitant to invest in a flood-prone area.

Shockoe Bottom

17th Street Farmers' Market

Tobacco Row

Main Street Station






STUDY TOURS

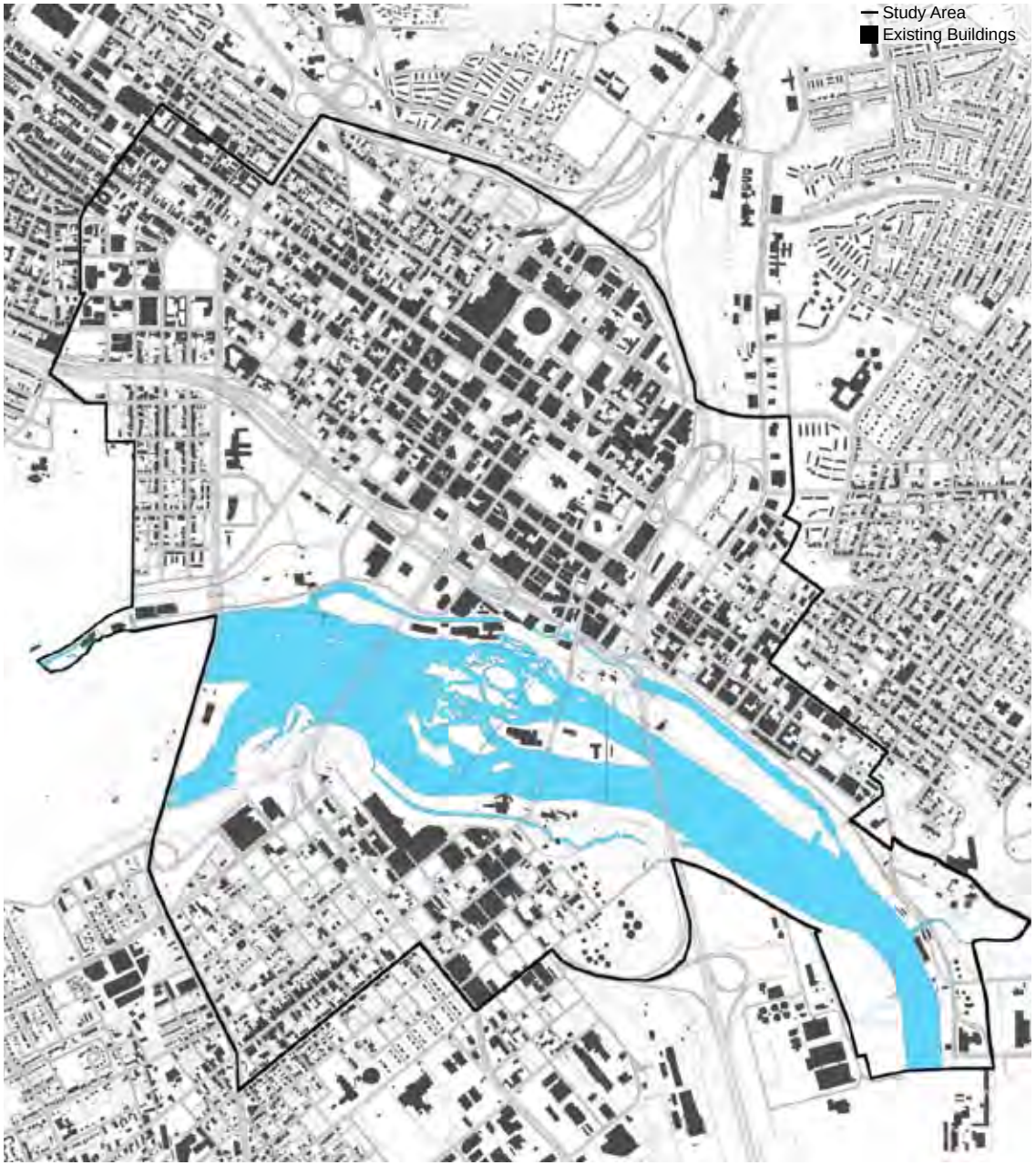
In order to better understand the Downtown Richmond of today the team toured the study area and outlying neighborhoods, such as Church Hill and the Fan. The team performed a detailed analysis of the various neighborhoods, corridors, and districts Downtown. The routes were coordinated both by the team and by city staff, who lead a tour of the study area, highlighting areas of particular concern or interest.

During these tours, team members walked and recorded the existing conditions of each area through photographs, maps, and measurements. The team identified and took pictures of streetscapes, buildings, architectural details, and unique conditions and characteristics that would influence the plan, such as significant views to the James River and notable historic buildings Downtown. The planners and designers also used base maps on their tour, examining the existing urban fabric and analyzing the network of streets, blocks and lots, building types, and building forms, and documenting potential areas for infill development and redevelopment. Particular characteristics such as vacant buildings and storefronts, development activity, maintenance and street activity were noted for each area.

ANALYSIS MAPS

In addition to photographing and touring the study area, the team reviewed past studies of Downtown, neighborhood reports, the City's Zoning Ordinance, recent development proposals, and the City's Geographic Information Systems (GIS). The team used this GIS data to create a series of analysis maps* that reveal the dynamics of the study area. These maps were used to isolate the land use, transportation, and physical characteristics of the study area. By examining these specific characteristics of the study area, the team was able to better understand the existing form of Downtown. The following analysis maps ultimately guided the public participation and design process, serving as a clear reference for design decisions.

**The analysis maps are based on March 2006 and August 2006 GIS information provided by the City of Richmond. Any inconsistencies with this data should be brought to the attention of the City's GIS coordinator.*

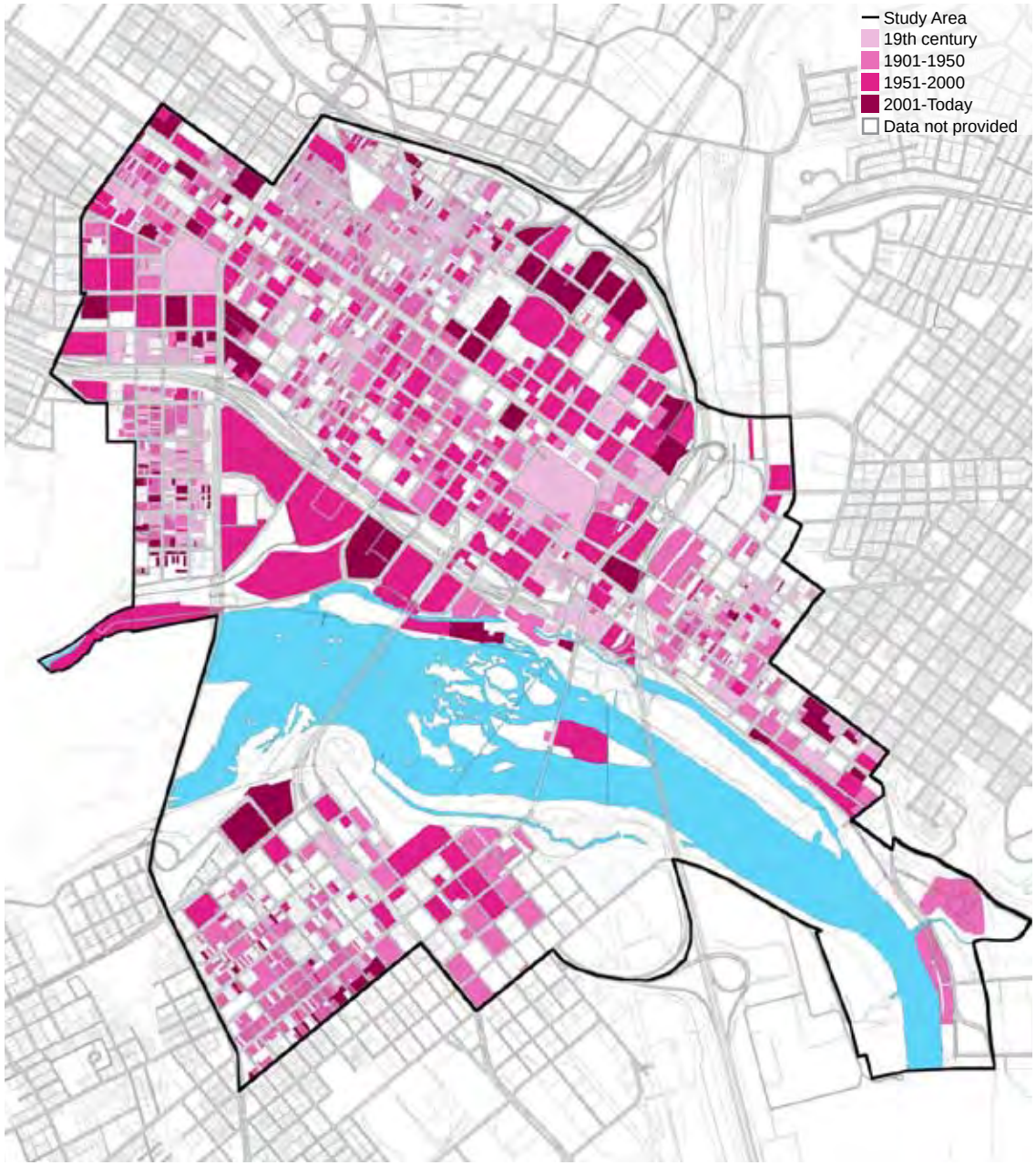


BUILDING COVERAGE

Building footprints are shown in black. Note the large building footprints in the eastern portion of the study area, in the City Center, around Broad Street, as well as in close proximity to I-95 and the Downtown Expressway. Outlying buildings are smaller office and "Main Street" commercial buildings that create a finer grain in the city. Large building footprints in Manchester consist primarily of one to three story industrial buildings and warehouses. The smallest building footprints are single family residences with outbuildings and garages. There is a variety of building types throughout Downtown, from the largest office building to the single-family home.

TOPOGRAPHY

Much of the Downtown is built upon a significant ridge above the James River, safe from flooding. Significant ridges occur at Oregon Hill and Church Hill, two of the earliest developed parts of Richmond. The State Capitol was similarly built upon a prominent hill over looking the river, lending importance to the Commonwealth by its very siting. The land slopes down steeply to the river into the Shockoe district. The area surrounding Shockoe Creek has experienced significant flooding, particularly in 2004 during Tropical Storm Gaston. Other low-lying areas include the islands in the James River and the eastern portion of Manchester, traditionally the industrial district of the city.

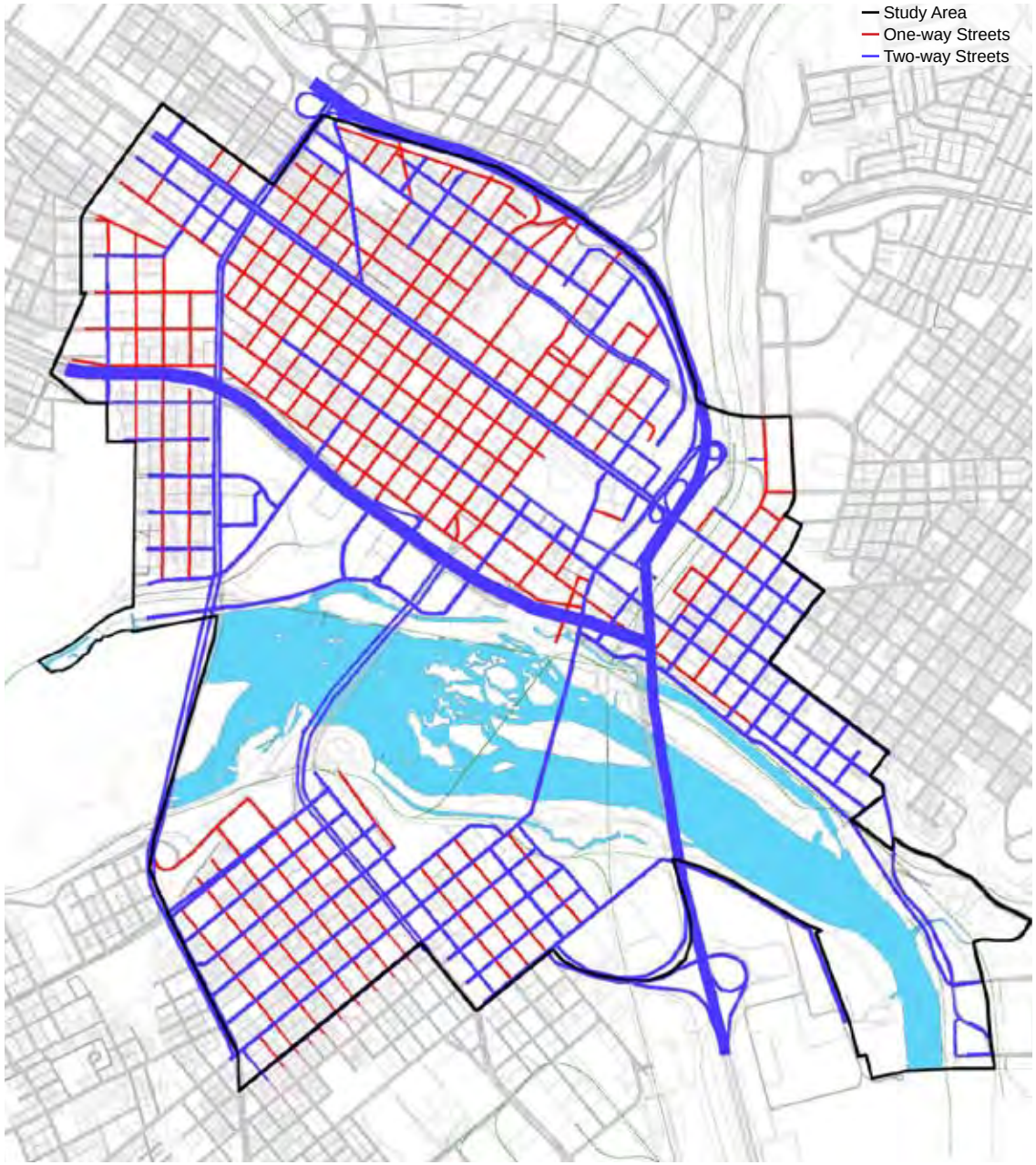


AGE OF BUILDINGS

This diagram demonstrates the patterns of construction in Downtown over time, with the lightest shade designating the first buildings to have been built in Richmond, and the darkest indicating the most recent construction Downtown. As is evident, the earliest development in the city was along the bluffs and plateaus above the James River, most significantly in Church Hill, Jackson Ward, and Oregon Hill. A substantial settlement in Manchester was also established. Recent development is concentrated along the James River and in Institutional campuses, such as VCU's Monroe Park and MCV Campuses and the Virginia BioTechnology Research Park.

STREET NETWORK

Downtown Richmond has an excellent street network with a hierarchy of street types: boulevards, avenues, urban streets, and alleys. The pattern of streets defines walkable blocks that are generally about 250' long and 330' wide; this equates to 2 1/2 acres for each block, typical of the traditional grid. Due to topography and breaks in the urban fabric, the street network is disrupted around the Coliseum and Convention Center, State Capitol, and the riverfront south of the Downtown Expressway, as well as along the Expressway. This creates key challenges such as providing strong connections between Shockoe Bottom and Downtown; connecting Downtown to the James River; and maintaining east-west connections in the urban street grid. The interstate interrupts many streets in the grid and where streets are continuous, the presence of the interstate itself discourages passage.

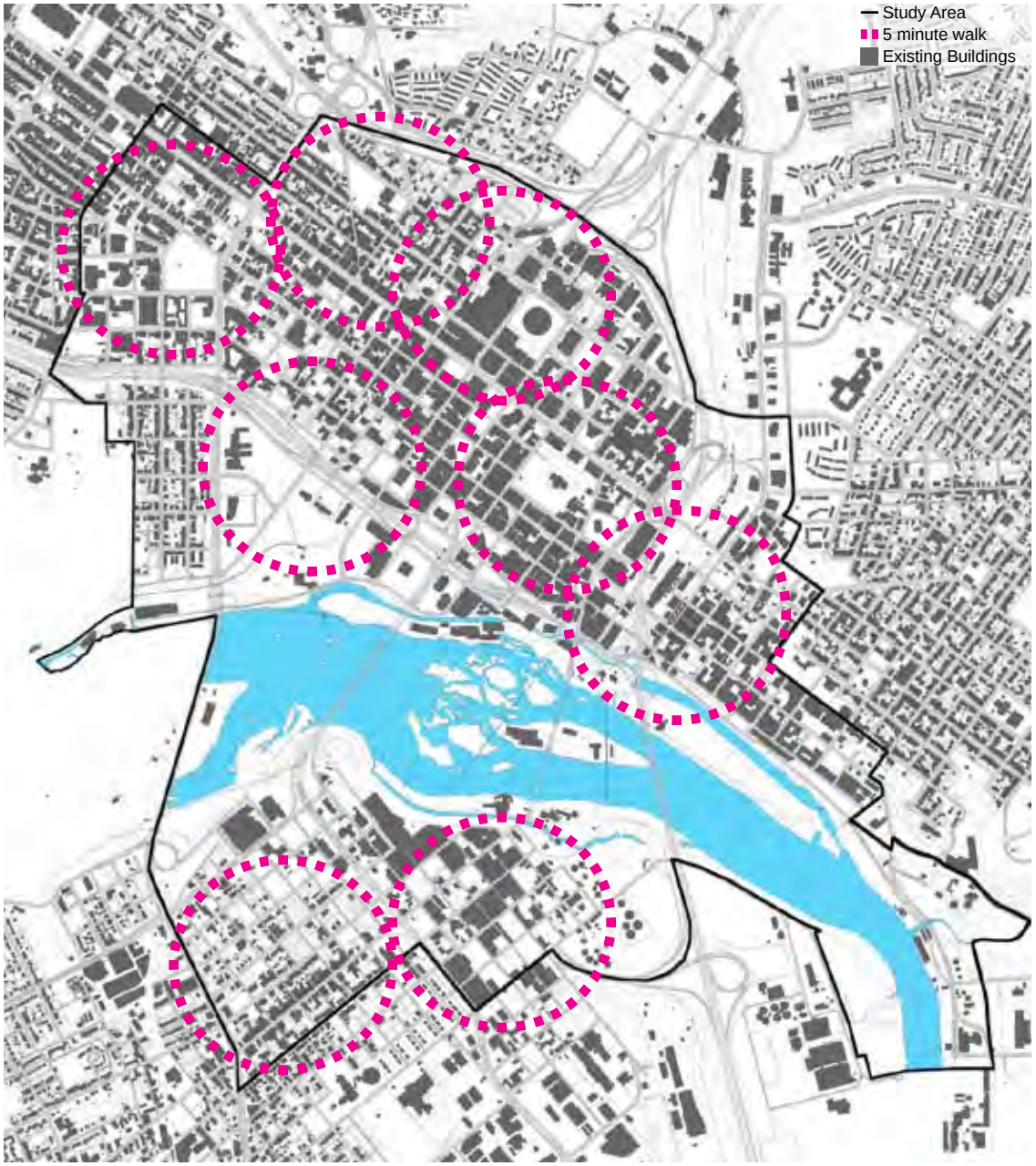


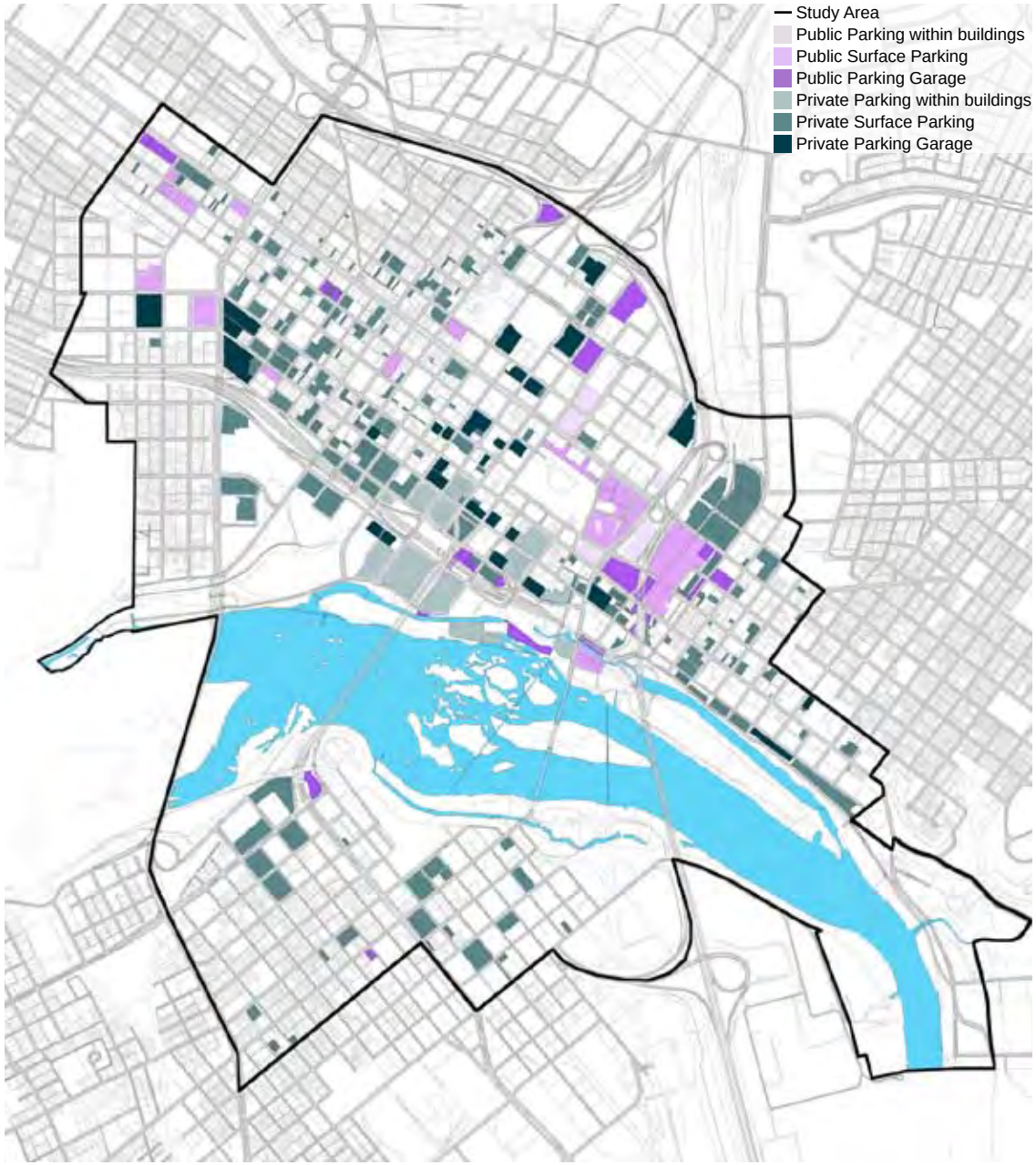
ONE-WAY STREETS

One-way streets are a defining characteristic of Downtown's transportation network. These streets were designated one-way in the 1950s in an effort to increase traffic capacity and speed through the Downtown, prior to the construction of I-95 and I-64. This policy has had a negative effect on retail and commercial development, has compromised pedestrian safety and comfort due to increased traffic speed, and ultimately has impeded access to the Downtown itself by complicating routes and requiring "back-tracking" to arrive at a particular destination. There are over 60 one-way streets in Downtown today.

FIVE-MINUTE WALK

If streets are walkable, most people will walk a distance of approximately ¼-mile (1320 feet) or 5 minutes before turning back or opting to drive or ride a bike rather than walk. This dimension is a constant in the way people have settled for centuries. This distance relates to the manner in which people define the edges of their own neighborhoods. Of course, neighborhoods are not necessarily circular in design, nor is that desirable. The ¼-mile radius is a benchmark for creating a neighborhood unit that is manageable in size and feel and is inherently walkable. Neighborhoods of many shapes and sizes can satisfy the ¼-mile radius test. Downtown Richmond demonstrates the ¼-mile radius principle with several distinct neighborhoods or quarters that combine to form the whole.



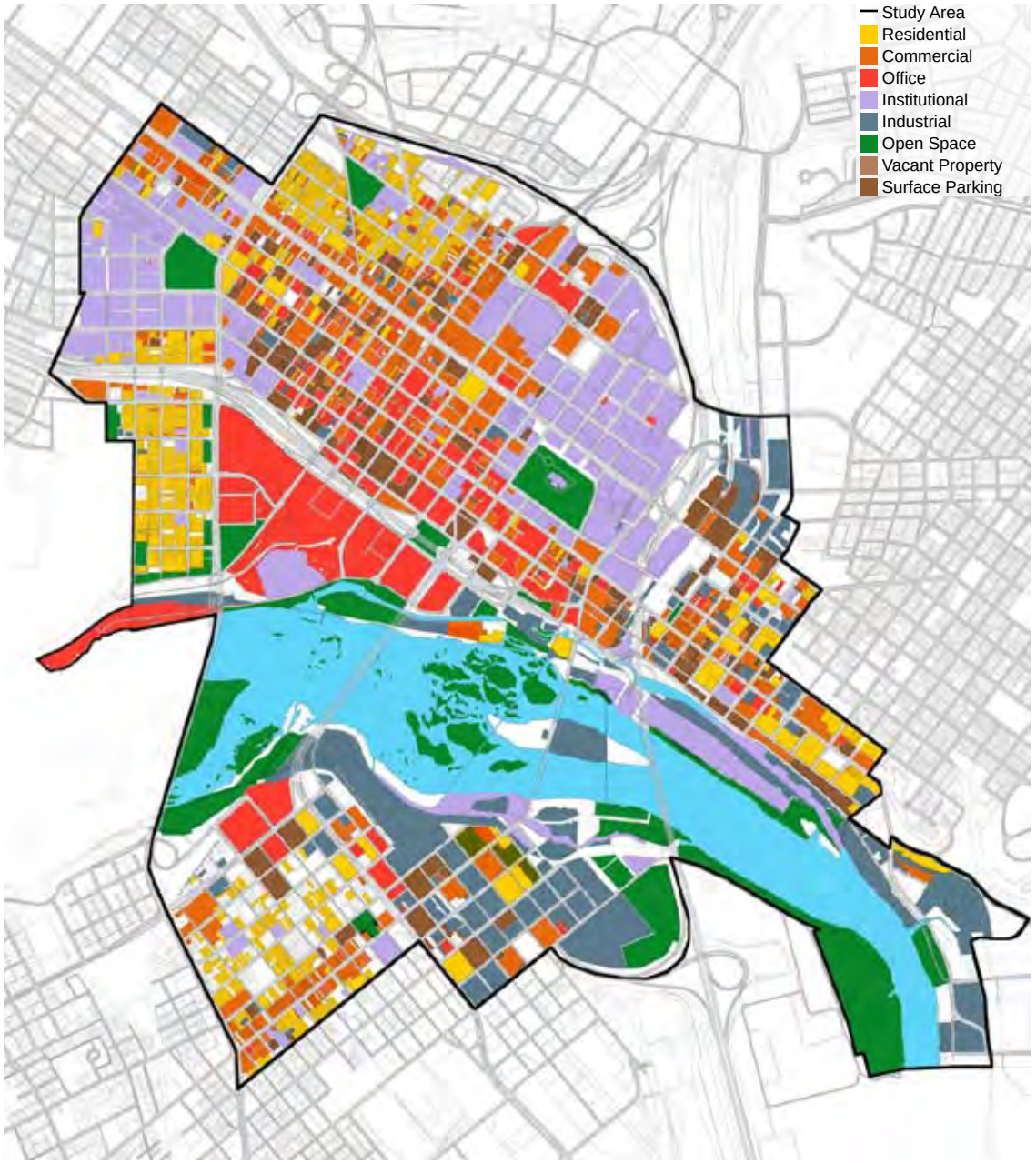


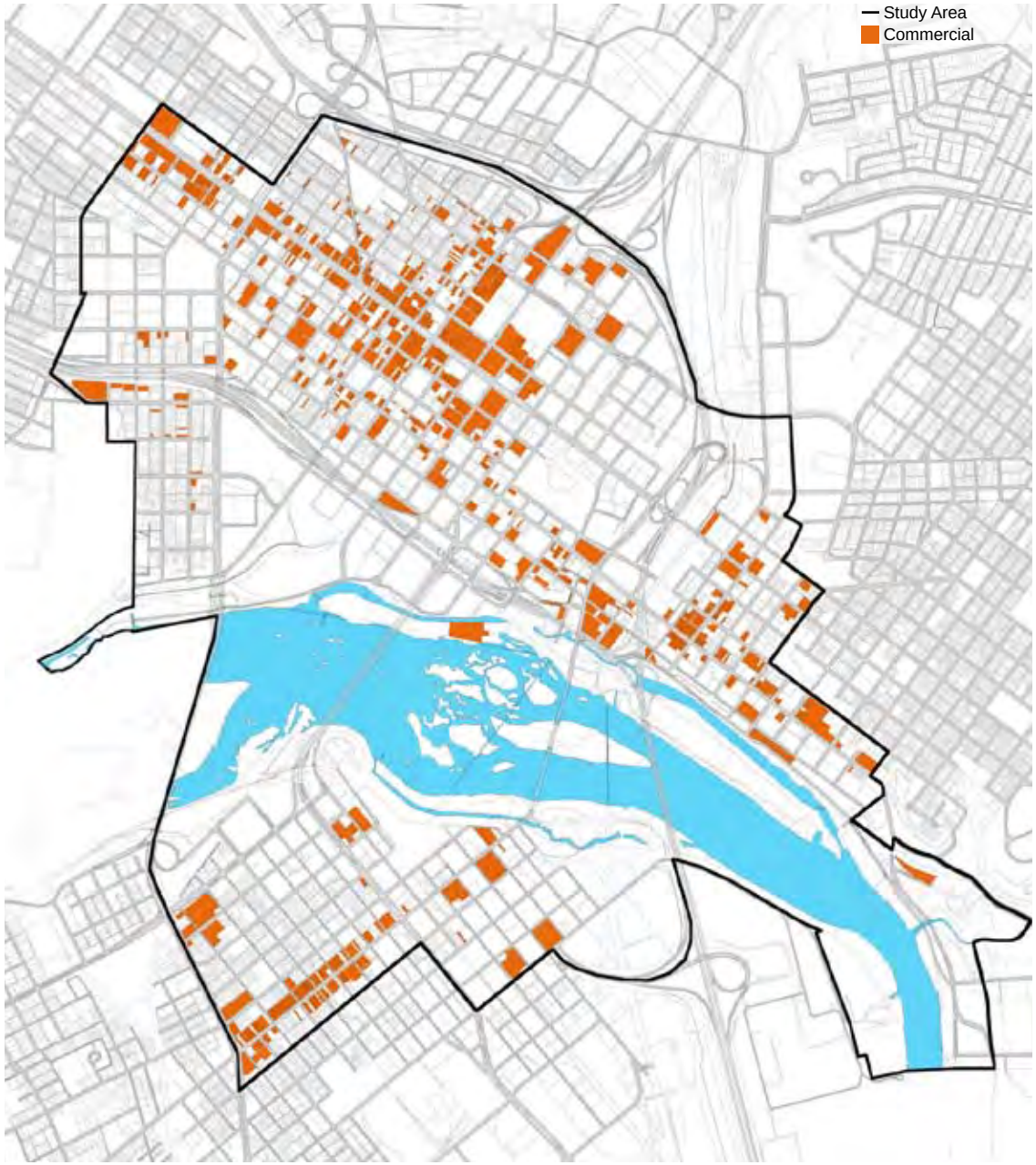
OFF STREET PARKING

As seen in this diagram, off-street parking is spread throughout Downtown. According to the City's 2002 Strategic Parking Plan, the Downtown has a surplus of off-street parking, although it has a shortage of publicly available parking, particularly around the Convention Center and in the City Center. As seen in this diagram, the majority of the off-street parking in Downtown is privately managed, and a significant proportion of this private parking is surface parking lots located in the urban center, many of which span an entire city block.

DOWNTOWN LAND USES

Downtown is comprised of a variety of land uses. Conventional zoning has resulted in many of these uses to be separated into pods of single-use development. The following diagrams demonstrate the range and location of uses found within the Downtown.



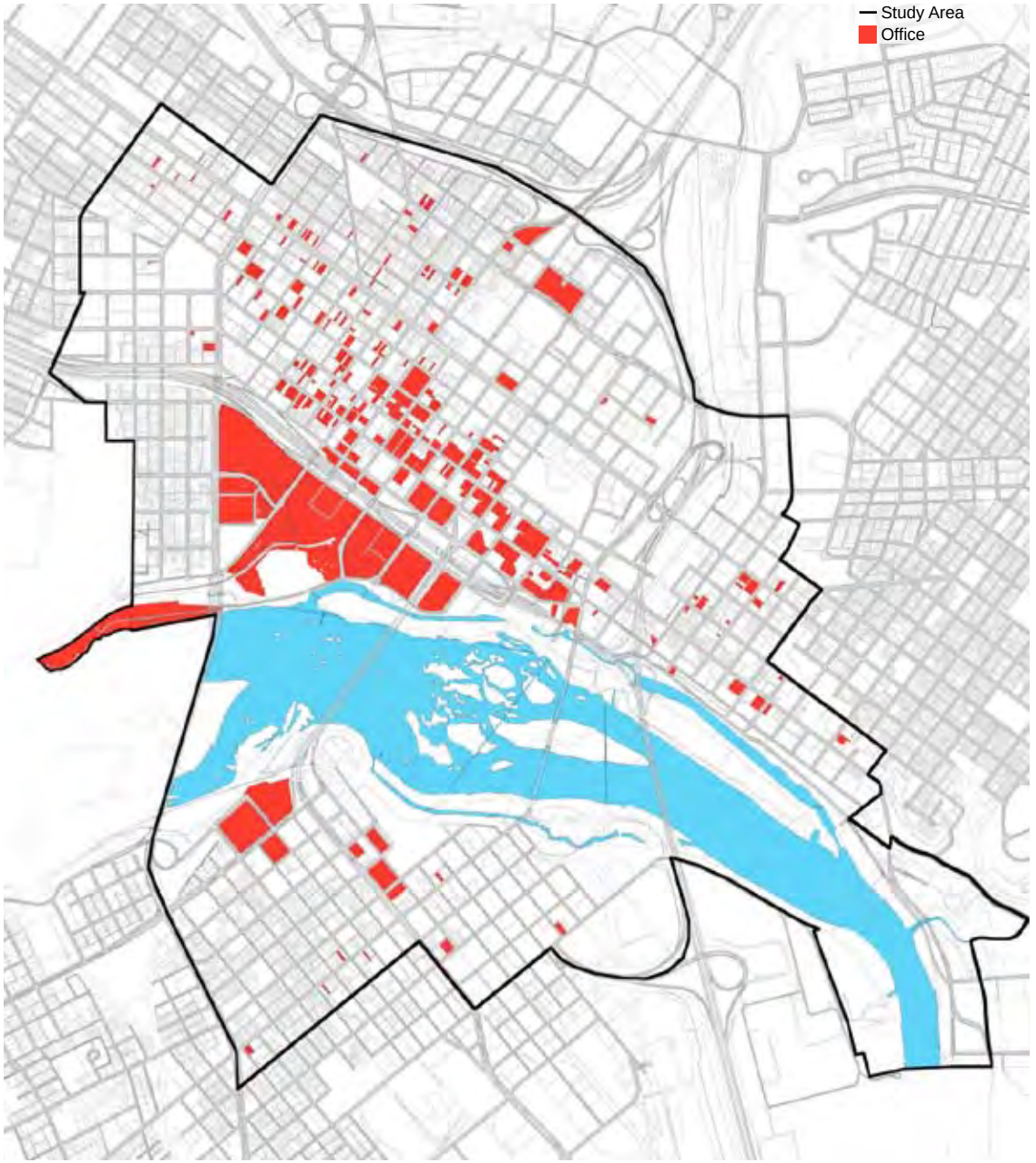


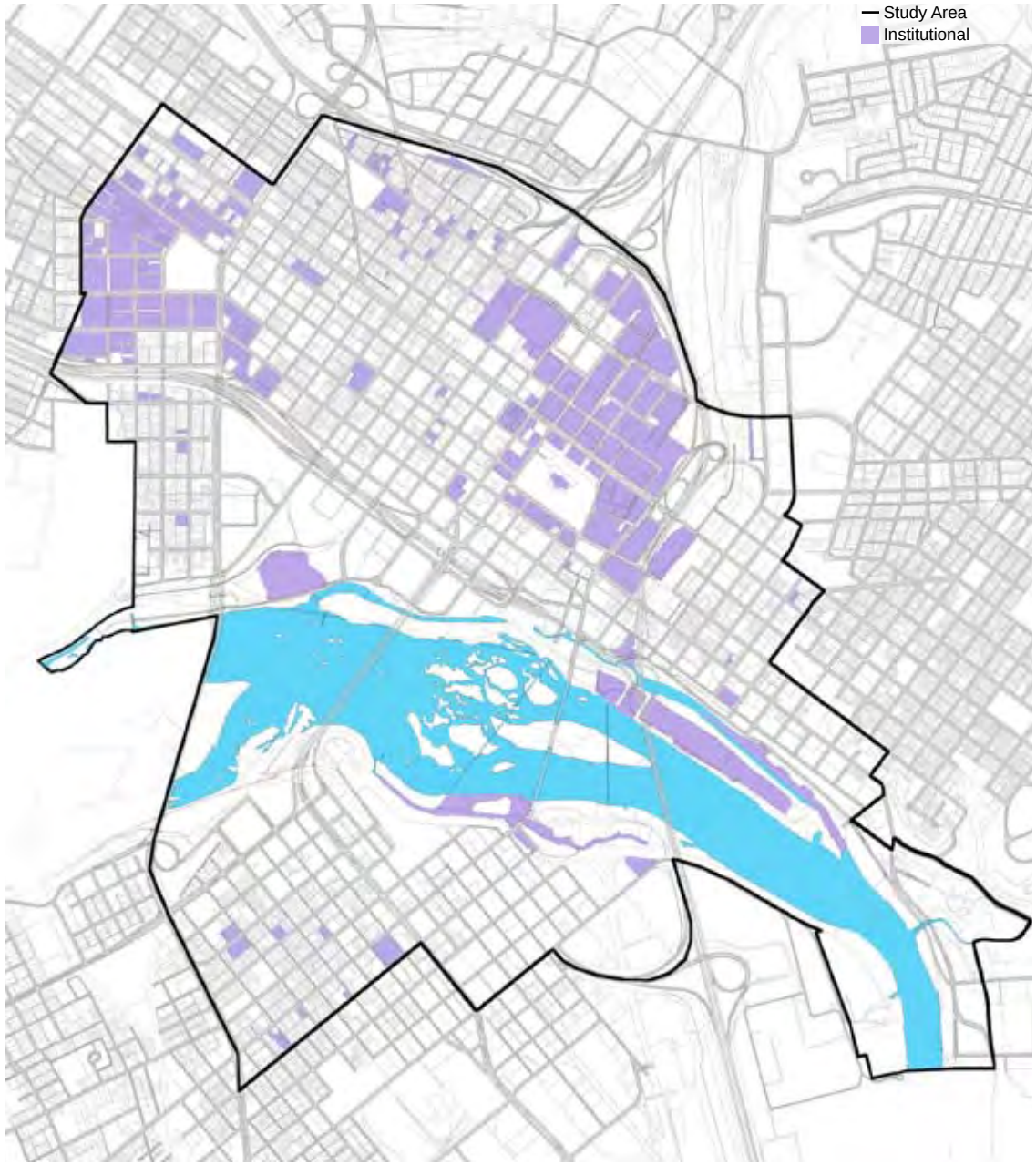
COMMERCIAL USES

Commercial uses include all retail, entertainment, and mixed-use properties in Downtown. These uses are concentrated in particular along Broad Street, Hull Street, in Shockoe, and around the Coliseum. Much of these uses reflect historic patterns of commerce in Richmond, for instance along the main streets of Broad Street and Hull Street.

OFFICE USES

Many of the office properties in Downtown are concentrated in the center of the city between Canal and Broad Streets. This is historically the business district of the city, and is characterized by a traditional street grid with a mix of commercial and office uses, resulting in a high level of connectivity. The larger orange patches on the map signify office complexes that have been developed within the past 50 years. These are home to large corporate "campuses" that have limited connectivity to the surrounding areas. They are accessed by car, and are strategically located near highways. The super-block pattern of this area creates a challenge to connectivity through the Downtown.



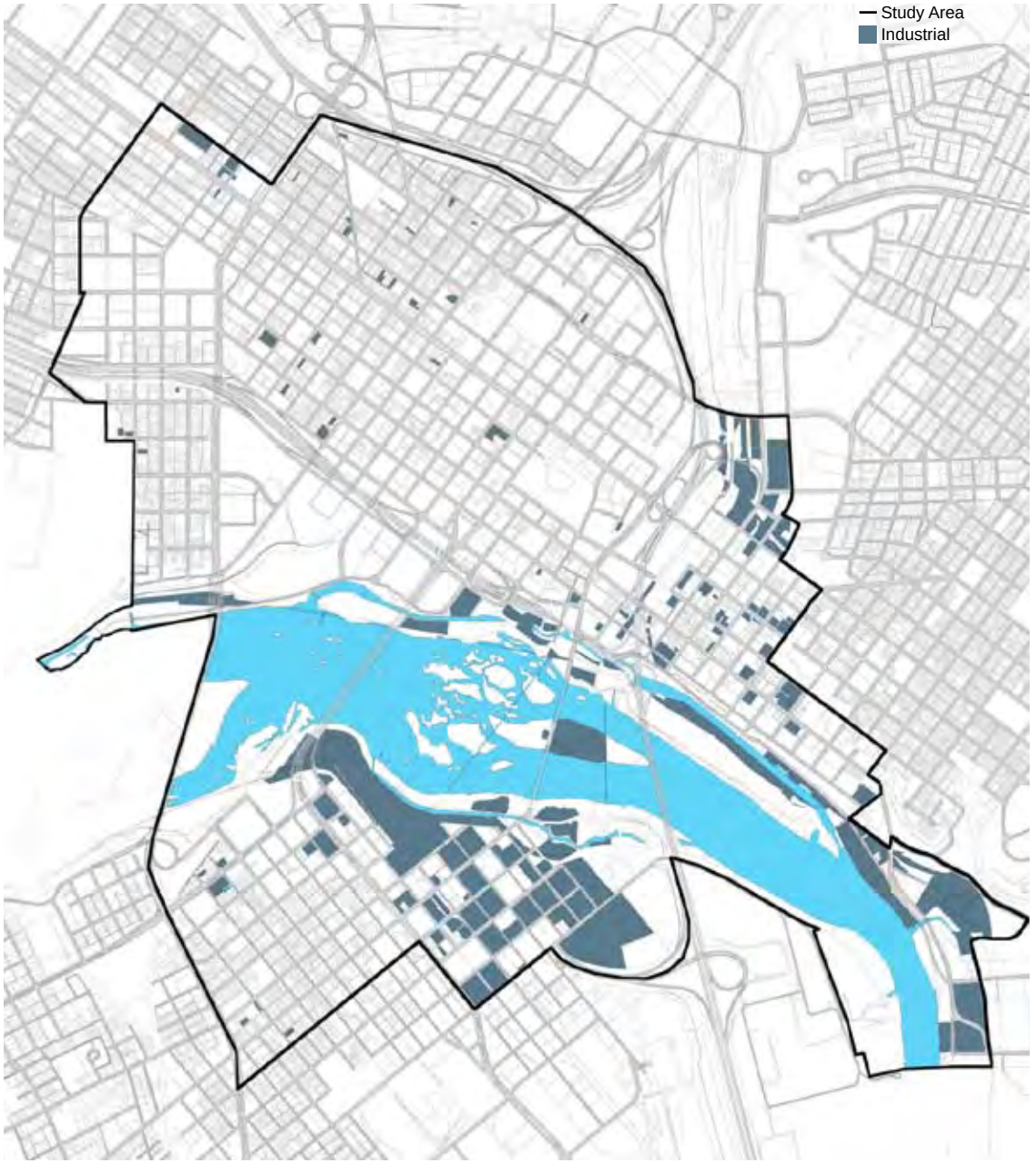


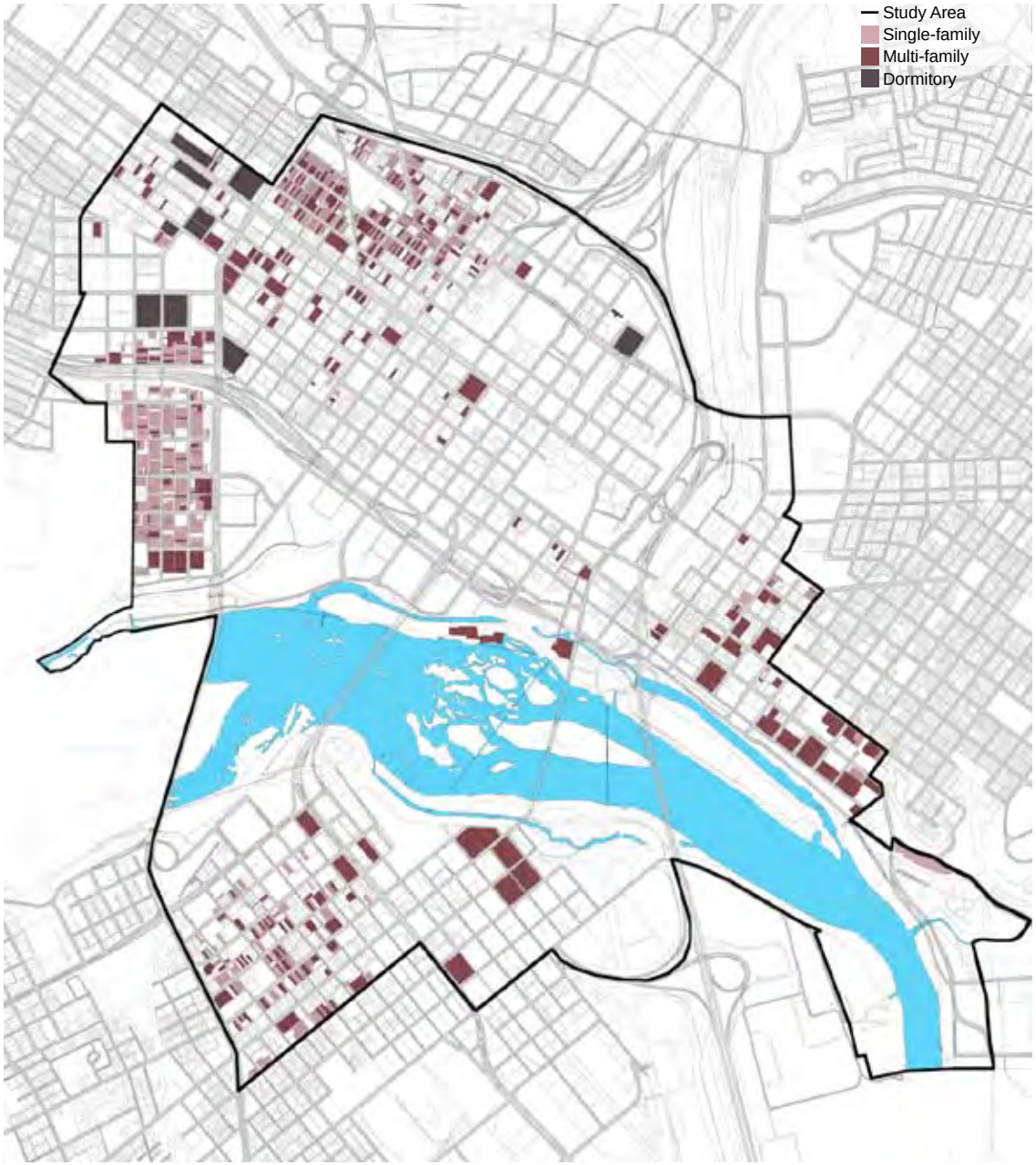
INSTITUTIONAL USES

Due to Richmond's position as capitol of the Commonwealth of Virginia, Downtown Richmond has a significant number of institutional properties, most notably the State Capitol grounds and complex, courthouses, museums, VCU's MCV Campus, and the VCU Monroe Park Campus, in addition to city-owned properties, churches and schools.

INDUSTRIAL USES

Industrial uses continue to exist in their traditional location along the riverfront, and in the case of Manchester, in established industrial districts. The industrial district of Manchester is a healthy industrial area that serves the needs of local businesses and residents with minimal impact. This district has evolved into a dynamic neighborhood of industrial uses co-existing with art galleries and artist housing, as well as small craft workshops.



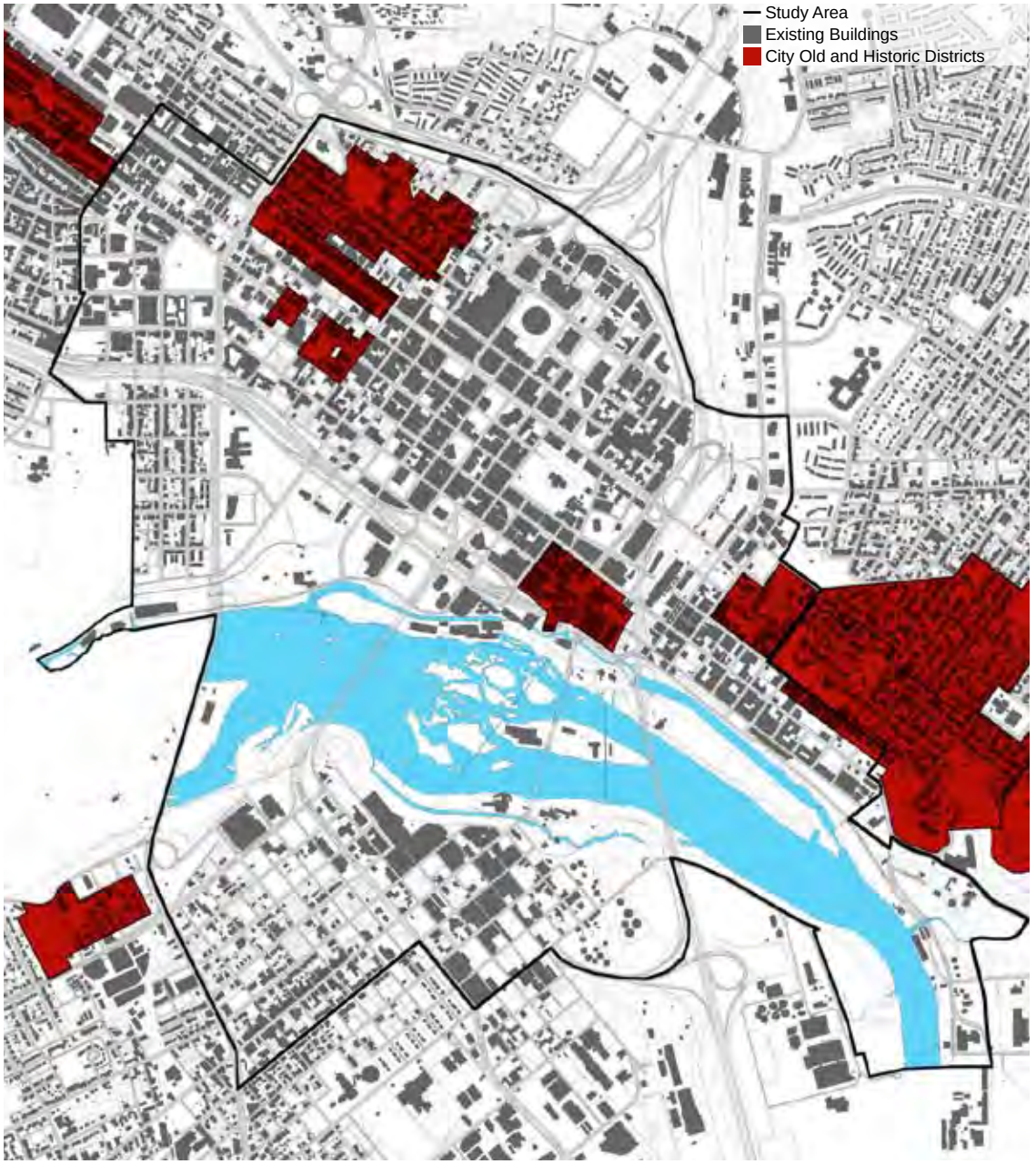


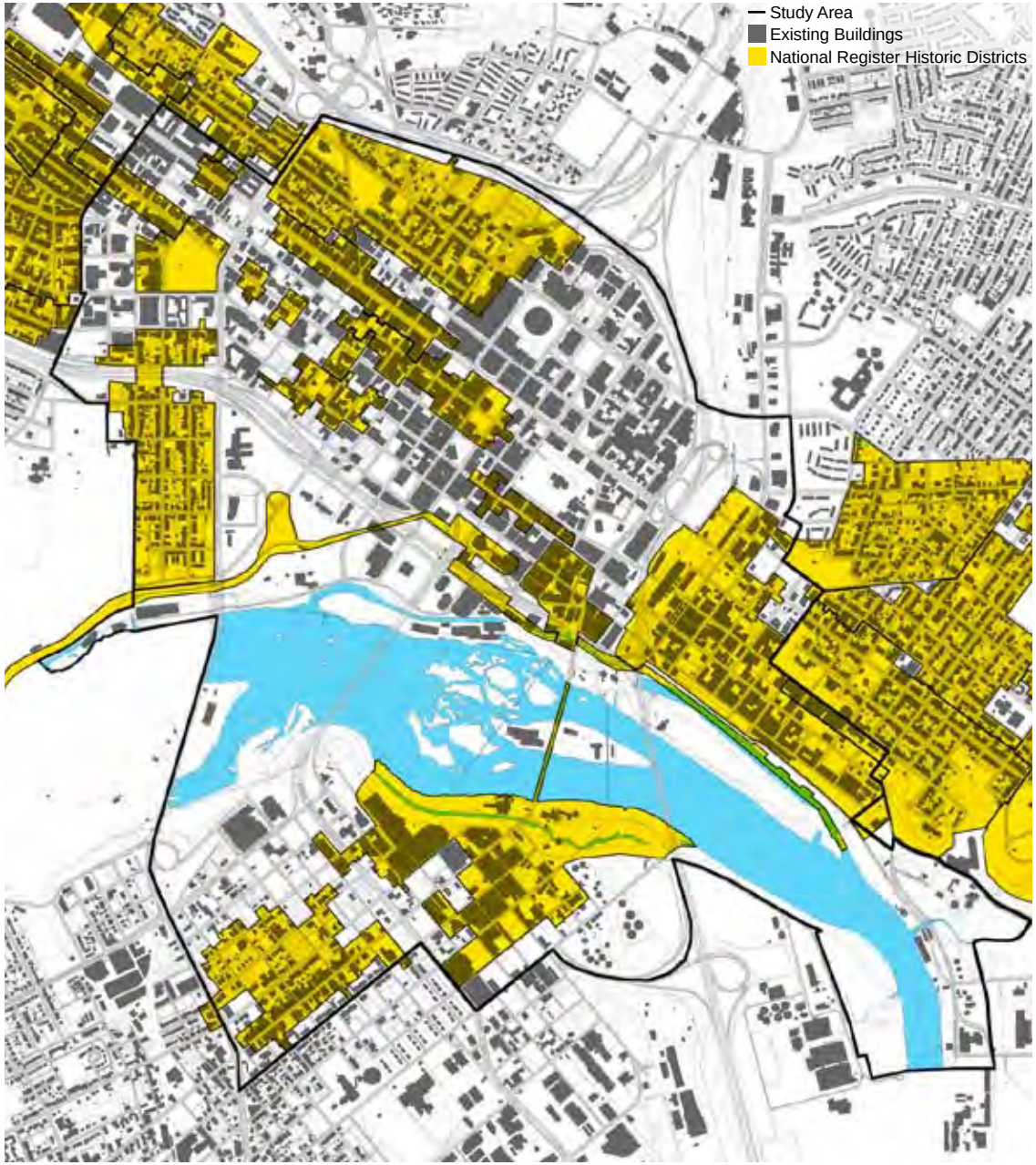
RESIDENTIAL USES

Residential property in the Downtown is concentrated at the western end, in Jackson Ward, Monroe Ward, and Oregon Hill, and south of the river in Manchester. These neighborhoods reflect the historic patterns of settlement based on topography and trade. The City Center is generally devoid of housing, and much of the riverfront and areas of Shockoe Bottom and Manchester have historically been rejected as housing sites due to periodic flooding. Richmond has a unique housing stock in that much of the existing Downtown housing is historic, urban single-family homes, as seen on the map in light pink. In addition to single family homes, many urban apartment buildings are located Downtown. In recent years, vacant warehouses have been restored as loft apartment buildings, increasing the multi-family housing options in Downtown Richmond.

CITY OLD & HISTORIC DISTRICTS

City Old and Historic Districts are locally designated and protected areas of the city that hold a particular cultural, architectural and/or historical significance. The Richmond Commission of Architectural Review (CAR) reviews all proposed new development and any alteration to existing structures within these districts in order to maintain the unique character of the neighborhood. This has served as an effective tool in spurring the preservation and revitalization of Downtown neighborhoods.





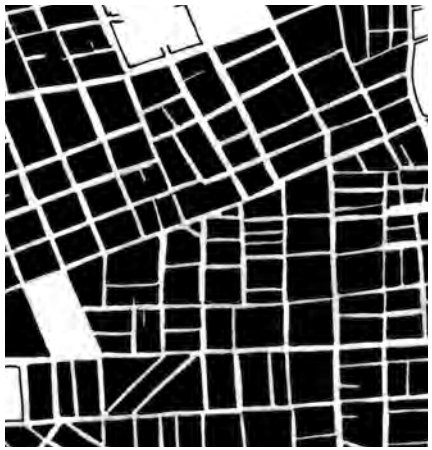
NATIONAL REGISTER OF HISTORIC PLACES
National Register Historic Districts comprise much of Downtown Richmond's urban fabric. This designation entitles property owners who restore their buildings to tax benefits, however it does not protect buildings from demolition. There are also a number of properties in Downtown that are listed individually on the National Register for Historic Places, such as the State Capitol building.

SCALE COMPARISONS

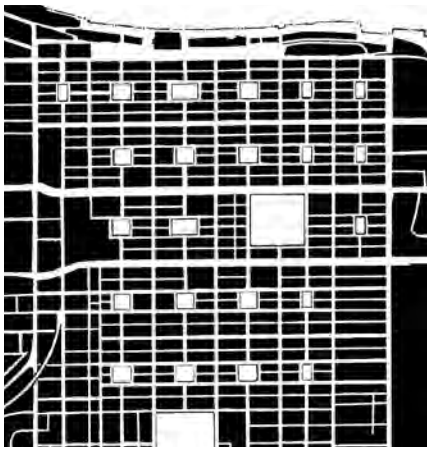
Scale comparisons helped the planners and community participants to relate the scale of Downtown Richmond to other memorable downtowns and great places. All downtowns are shown at the same scale, highlighting the particular block size and street pattern of each city. Public spaces are shown in white, highlighting the shared realm of streets, parks and plazas of the city, while private space is depicted in black, representing the built environment.

Richmond, VA

Norfolk, VA

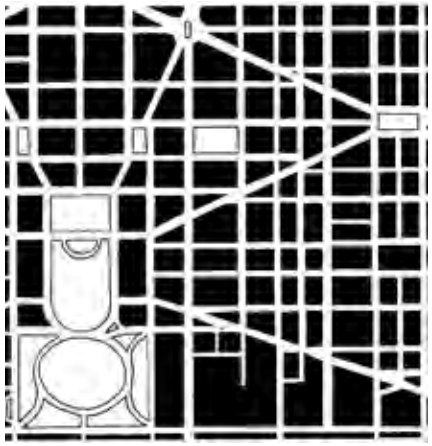


Charleston, SC



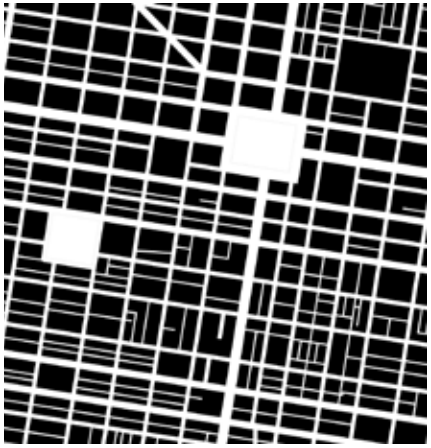
Savannah, GA

Savannah, GA
Savannah's celebrated squares were an integral part of the original plan for the city, at a time when their scale and abundance may have seemed excessive. Over time, however, ambitious planning has proven practical– these elegant public parks provide natural relief, making it possible for Savannah to develop densely while maintaining a high quality of life. As Downtown Richmond grows, it will be important to plan for appropriate parks and open space; not only for their aesthetic qualities but their economic benefit they provide to private property.



Washington, DC

Chattanooga, TN



Philadelphia, PA

Philadelphia, PA
William Penn's plan for Philadelphia uses the street layout itself to celebrate City Hall, arranging the two primary axis of the city to terminate on the building. Richmond has a similar network of streets terminating on the historically significant Capitol building; however these streets should be manipulated to provide clearer views to the Capitol, such as turning one-way streets into two-way, and developing landscaping and street furniture that enhances the view to the Capitol.

designing in public 2

"Make certain that we don't dream it forever, but do it today."

– Mayor L. Douglas Wilder
July 26, 2007, at the Work-in-Progress Presentation

Direct community input shaped the ideas and recommendations found in the Downtown Plan. In July 2007, the Dover-Kohl team conducted an open planning process called a charrette, which combines hands-on community brainstorming with "designing in public." Over the course of seven days, more than 800 interested residents and stakeholders participated in the planning process, including property owners, neighbors, merchants, developers, and community leaders. Responsible growth requires teamwork; the high level of civic involvement displayed during the Downtown Plan planning process will ultimately guide growth and ensure quality development for future generations of residents.

What is a Charrette?
Charrette is a French word that translates as "little cart." At the leading architecture school of the 19th century, the École des Beaux-Arts in Paris, students would be assigned a tough design problem to work out under pressure of time. They would continue sketching as fast as they could, even as little carts, *charrettes*, carried their drawing boards away to be judged and graded. Today, "charrette" has come to describe a rapid, intensive and creative work session in which a design team focuses in a particular design problem and arrives at a collaborative solution. Charrettes are product-oriented. The public charrette is fast becoming a preferred way to face the planning challenges confronting American communities.

CHARRETTE PREPARATION

Planning for the public process began in April 2007. Members of the team conducted a preliminary site visit to Richmond in June 2007 where they met with City Council members, Planning Commissioners, Community Development Department staff, representatives from Venture Richmond, neighborhood groups, business owners, representatives from VCU, and others in preparation for the charrette. The meetings and interviews helped the team to shape the objectives of the Plan and understand the leadership's vision and ideas for the future of Downtown.

Community input was essential in creating the Downtown Plan. Prior to the charrette, the City of Richmond and Venture Richmond spread the word about the planning process by sending emails to property owners, distributing printed brochures to local restaurants and coffee shops, posting public notices, and advertising on the City website. The community itself also played an important role in getting the word out. Neighborhood associations spread the word to residents, and enthusiastic bloggers informed the community via the internet. Large signs identified the Open Design Studio and encouraged residents and passersby to stop in and offer continual input. The media campaign continued after the charrette, encouraging public comment through the City website, and advertising on-going follow-up meetings for continued participation.

The Kick-off Presentation marked the start of the charrette.



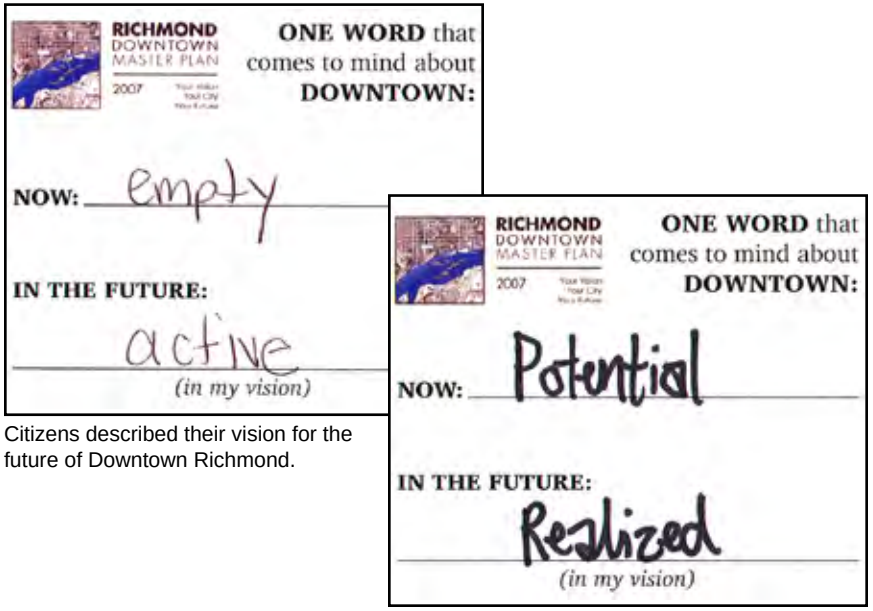
Over 300 people participated in the event.


Residents asked questions following the presentation.


Community members offered suggestions to the design team.

KICK-OFF PRESENTATION

On Friday, July 20, 2007, approximately 300 Richmond residents, business owners, and City officials gathered for a Kick-off Presentation at Plant Zero in Manchester. City of Richmond Community Development Director Rachel O'Dwyer Flynn welcomed the crowd and introduced Victor Dover, principal of Dover, Kohl & Partners, and the design team. Victor explained the community's role in the charrette, emphasizing that the Plan was their own, and stressed the importance of continuous public involvement throughout the planning effort. He explained that such civic contribution would ensure the creation of a plan representative of community ideals. He then provided a "food for thought" presentation which included background information on traditional town building, infill development, and the preservation of community character. At the conclusion of the presentation, attendees were encouraged to stand up and voice concerns and questions about the future of Downtown. Further input was gathered with "one word cards"; attendees were given small cards and asked to list one word describing their Downtown today and one word describing their vision for the future. These cards were collected at the end of the evening's presentation and reviewed by the team.



Citizens described their vision for the future of Downtown Richmond.

HANDS-ON DESIGN SESSION

On Saturday, July 21, 2007, the Richmond community returned to Plant Zero for the second day of the week's events–the Hands-on Design Session. The intent of the Hands-on Design Session was to create an initial consensus and develop a long-range community vision for the future of Downtown. More than 200 people participated in the Saturday session, some of whom had attended the Kick-off Presentation. Victor Dover gave a short introduction and briefing, explaining the goals of the public design session, setting ground rules for the group planning process, and orienting people to the Downtown base maps. After the briefing, participants were organized into groups of about ten people. Each group joined a planning facilitator from the team at a small round table, where they were encouraged to write and draw on the base maps.

The group planning process began with identifying signature locations (the State Capitol, Monroe Park, and others) on the base maps. This helped to orient participants to the maps and started active conversations. Participants were then given red and green dots and asked to place them on the map in areas that had positive and negative characteristics. After identifying these key areas of concern, participants were asked to brainstorm their vision for Downtown, and illustrate this vision on the base maps. A wide range of visions were identified and discussed, including new land uses, more green and open spaces, better building design, increased pedestrian and cyclist safety, more sensitive street design, reformed parking, and improved neighborhood services.

During the second part of the workshop participants focused on specific areas of Downtown. Each table worked on one or two area maps, which highlighted Manchester, Shockoe, City Center, the James River, Broad Street and Jackson Ward, and Virginia Commonwealth University (VCU) and the surrounding neighborhoods. At the end of the workshop a spokesperson from each table reported the findings and major points of his or her group to the entire assembly. These presentations revealed shared visions for Downtown; this allowed the community and the planning team to develop a set of common priorities for Downtown Richmond.

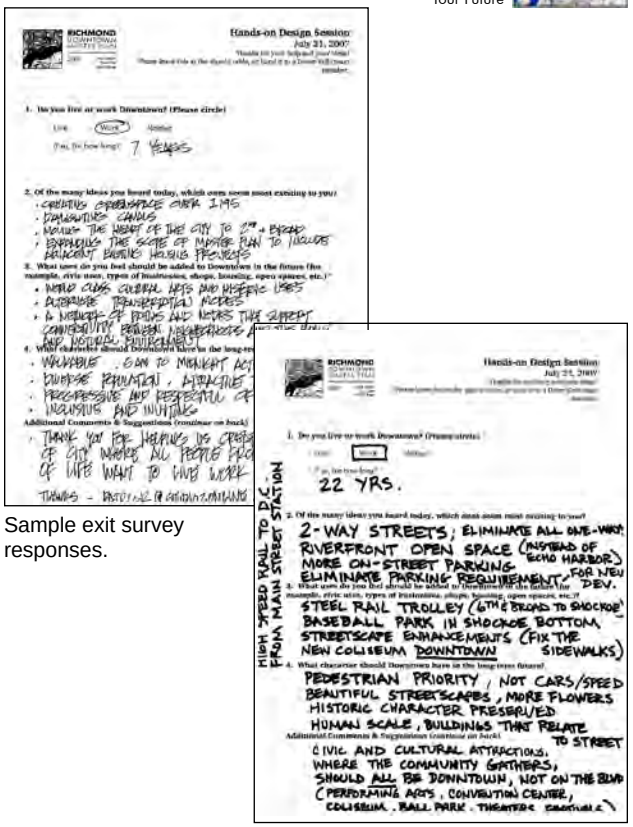
Of the many ideas heard, some of the most widely shared included:

- Provide greater public access along the James River and Mayo Island
- Convert one-way streets back to two-way operation
- Incorporate a light rail/trolley system Downtown
- Make varied and diversified housing options available to all
- Create more public open spaces in the Downtown area
- Revitalize Hull Street and bring back Manchester

In addition to the group presentations, each participant filled out an exit survey at the end of the session, allowing the design team to gain more thorough insight into the ideas of the many individuals that participated.



Participants worked together, sharing ideas for the future of Downtown Richmond.



Sample exit survey responses.

One representative from each table presented their table's work to the entire group.

Sample drawing produced during the Hands-on Session.

OPEN DESIGN STUDIO

From Sunday, July 22 through Thursday, July 26, 2007, the design team continued to work with the community at an open design studio adjacent to Plant Zero at 220 Hull Street. Residents and local leaders were encouraged to stop by the studio throughout the week to check on the status of the plan, provide additional input, and to ensure that the design team was on the right track. Over 150 people visited the studio throughout the week to check on the team's progress. The studio was open day and night, offering community members the flexibility to stop by when they were available. Table plans and drawings from the Hands-on Design Session were placed around the room for new community members to review as they joined the planning process.

In addition to the open design studio, members of the design team met with key stakeholders and experts in scheduled technical meetings. The scheduled technical meetings included sessions with City staff, historic preservation organizations, arts and culture groups, representatives from Virginia Commonwealth University, neighborhood leaders, environmental groups, local developers and architects, and property owners. These technical meetings served to shape the detailed elements of the plan and ensured that the ideas being processed were shared by many parties.

As citizens and technical experts frequented the studio, they helped the design team and City staff to develop the initial concepts for the plan. Working in town allowed the design team ready access to the study area during all hours and days of the week. The team observed day-to-day traffic patterns, visited local businesses, and experienced other details of everyday life Downtown. The team then synthesized the many ideas heard from the community throughout the week into a single cohesive plan. The planning team also created a series of computer visualizations, diagrams, drawings, and plans that clearly illustrated the initial concepts of the Downtown Plan for the community.

The team worked in an open design studio in Manchester.

The inter-disciplinary team synthesized plans drawn by community members.

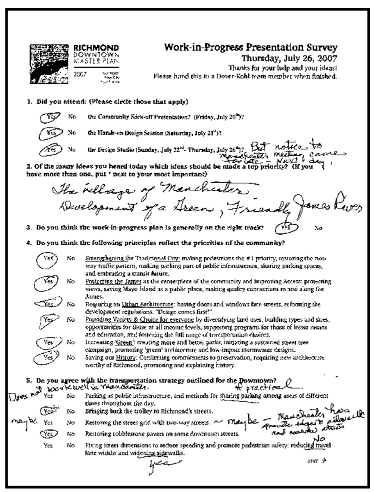
The design team held daily pin-ups in the studio.

WORK-IN-PROGRESS PRESENTATION

On Thursday, July 26, 2007, community members returned to Plant Zero for the conclusion of the charrette, the Work-in-Progress Presentation. A crowd of over 450 people attended the event, eager to see the draft results of the process. A number of City representatives were in attendance, including Mayor L. Douglas Wilder, City Council members, and Planning Commissioners.

Mayor L. Douglas Wilder welcomed the crowd of eager citizens to the Work-in-Progress meeting. He applauded the planning process, stressing the importance of continued citizen involvement in the refinement of the plan. Victor Dover then began the evening's presentation with a summary of the charrette events. He presented the draft of the Plan, illustrating the possibilities for preservation, conservation, and redevelopment in Downtown Richmond. The computer visualizations showing "before and after" illustrations helped attendees to envision the potential of Downtown. The planning team's transportation expert, Rick Hall of Hall Planning and Engineering, spoke on transportation and street improvements, and explained how to make Downtown more pedestrian-friendly. Landscape architect Elliot Rhodeside of Rhodeside and Harwell then presented the draft plan for the riverfront. He explained that with increased public access to the riverfront and the conversion of Mayo Island into a public park, the James River could evolve into Richmond's "great, wet Central Park."

Victor Dover concluded the Work-in-Progress Presentation by reminding attendees that the work presented was a draft, and that community members must continue to offer input on the plan. After the presentation, residents were encouraged to review and offer further suggestions or input on the draft plans, which were displayed throughout the room. An exit survey was also distributed to gauge the community's opinion on the ideas presented. Of the 143 surveys received, 90% (128 surveys) responded that the plan was on the right track; 1% (2 surveys) did not think the plan was on the right track and 9% (13 surveys) did not respond.


RICHMOND DOWNTOWN MASTER PLAN 2007

Work-in-Progress Presentation Survey
Thursday, July 26, 2007
Thanks for your help and your ideas!
Please hand this to a Dover-Kohl team member when finished.

1. Did you attend: (Please circle those that apply)
   - Yes No the Community Kick-off Presentation? (Friday, July 20th)?
   - Yes No the Hands-on Design Session (Saturday, July 21st)?
   - Yes No the Design Studio (Sunday, July 22nd - Thursday, July 26th)?
2. Of the many ideas you heard today which ideas should be made a top priority? (If you have more than one, put * next to your most important)
3. Do you think the work-in-progress plan is generally on the right track? Yes No
4. Do you think the following principles reflect the priorities of the community?
   - Yes No Strengthening the Traditional City: making pedestrians the #1 priority, restoring the two-way traffic pattern, making parking part of public infrastructure, sharing parking spaces, and embracing a transit future.
   - Yes No Protecting the James as the centerpiece of the community and improving Access: protecting views, saving Mayo Island as a public place, making quality connections to and along the James.
   - Yes No Requiring an Urban Architecture: having doors and windows face streets, reforming the development regulations. "Design comes first!"
   - Yes No Providing Variety & Choice for everyone by diversifying land uses, building types and sizes, opportunities for those at all income levels, supporting programs for those of lesser means and education, and fostering the full range of transportation choices.
   - Yes No Increasing 'Green': creating more and better parks, initiating a sustained street tree campaign, promoting 'green' architecture and low-impact stormwater designs.
   - Yes No Saving our History: Confirming commitments to preservation, requiring new architecture worthy of Richmond, promoting and explaining history.
5. Do you agree with the transportation strategy outlined for the Downtown?
   - Yes No Parking as public infrastructure, and methods for sharing parking among users of different times throughout the day.
   - Yes No Bringing back the trolley to Richmond's streets.
   - Yes No Restoring the street grid with two-way streets.
   - Yes No Restoring cobblestone pavers on some downtown streets.
   - Yes No Fixing street dimensions to reduce speeding and promote pedestrian safety: reducing travel lane widths and widening sidewalks.

over →

Sample Work-in-Progress exit survey

Victor Dover presented sketches and computer visualizations, illustrating the possibilities of preservation and redevelopment.



Participants studied the illustrations, reviewed draft plans, and provided more input.

City of Richmond Community Development Director Rachel O'Dwyer Flynn welcomed the crowd at the September meeting.

Community members asked questions and offered comments.

AFTER THE CHARRETTE

In the months following the charrette the illustrative plan was refined and this report was created. Richmond residents were asked to continue to provide input on the draft plan; the plan and corresponding images were made available for review at the Community Development Department and on the City of Richmond website.

On September 27, 2007, the team returned to Richmond and facilitated a Town Hall meeting. The meeting of over 400 interested citizens and city leaders included an overview presentation of the plan and discussion of new findings with regards to the Downtown market. Participants were offered the opportunity to ask the team questions about the details of the plan and an active conversation was continued with the Richmond community. As a result of the input from the September meeting, the team revisited the Foundations of the Plan established during the charrette and added a seventh Foundation focused on maintaining a mix of incomes Downtown.

On December 3, 2007 and January 15, 2008, the City Planning Commission held public hearings on the Downtown Plan. One hundred people addressed the Planning Commission on the draft during the two public hearings.


RICHMOND
DOWNTOWN
MASTER PLAN
2007
Your Vision
Your City
Your Future
Downtown Master Plan Workshop
Thursday, September 27, 2007
6:30 pm

In addition to updates on the City's website and announcements placed in the local newspapers, the City mailed postcards to residents and property owners to announce the return presentation.

DISTRICT MEETINGS

Following the public hearings on the draft plan, the City Planning Commission held meetings in each of the six districts outlined in the plan to allow for additional public input. The meetings were held between January 31 and February 20, 2008 with over 300 total people in attendance. Planning Commissioners hosted the meetings, encouraging attendees to provide feedback on the specific recommendations for their district, as well as their thoughts on the priorities for Downtown as a whole. The Planning Commission utilized this valuable input to create a priority list of items for the plan's implementation chapter.

FORM-BASED CODE SEMINAR

In order to provide the public with more information on Form-Based Coding, a recommendation in the plan, the City Planning Commission hosted a seminar on March 12, 2008. A Form-Based Code is a type of zoning that regulates patterns of development by focusing on the relationship of buildings to each other and the street. The Planning Commission invited in professionals working in the field to present an overview of the practical and legal aspects of this type of zoning. The presenters answered questions from Planning Commissioners and some of the nearly 100 interested members of the public in attendance.

foundations of the plan 3

The Illustrative Plan synthesizes community ideas and depicts the idealized build-out for Downtown. This map is for illustrative purposes and is not a regulating document. The Illustrative Plan identifies key opportunity parcels for infill development and preservation of open space.

A SHARED VISION

The plan for the future of Downtown Richmond is both a physical plan to guide appropriate growth and development and a policy document to serve as a blueprint for action for City leaders, residents, and Downtown investors. The physical design details of the plan will likely evolve over time, but the "Foundations of the Plan" are intended to remain constant throughout implementation. The Foundations embody both the citizenry's vision for the future of their Downtown and the basics of planning for highly livable cities. They summarize the results of the public planning process and promote historic preservation, infill development, redevelopment, and conservation of open space and natural resources. The Foundations are to be used by City leaders, City staff, the business community, and residents to ensure that the continued preservation and development of Downtown remains true to the community's vision.

This chapter presents the fundamental themes and action steps needed to revitalize Downtown; specific design components of each foundation, as applied to the various Downtown districts, are further described and illustrated in Chapter 4. General guidance on implementing each foundation is included; more detailed implementation strategies can be found in Chapter 7.

SEVEN FOUNDATIONS

1. VARIETY AND CHOICE
Promote Richmond's competitive advantage by further diversifying land uses, building types and sizes, and providing a full range of transportation options. Urban environments are complex and adaptable. Cities are naturally mixed-use, mixed-income, and multi-modal.

2. TRADITIONAL CITY
Pedestrians and transit riders thrive in traditional cities. Downtown Richmond has the street network and much of the historic architecture in place to support a rebirth of traditional modes of transportation. Encourage these alternative modes of transportation by restoring the two-way traffic pattern, re-introducing a trolley system, and reconsidering parking requirements for urban buildings.

3. GREEN
Great parks and sustainable design make cities livable. Attract new residents and visitors to Downtown with an integrated system of urban parks. Celebrate Richmond's existing park system, and increase public access to parks. Initiate an ambitious street tree campaign. Incorporate sustainable design into all new buildings and infrastructure projects in order to create a fully "green" city. For example, streets should be designed to lower stormwater impact by incorporating street trees and planting strips, where appropriate.

4. RIVER
The James River is Richmond's "great, wet Central Park." Allow residents and visitors to fully enjoy this unique natural feature by creating a series of clear connections to the riverfront. Develop a comprehensive system of natural open space along the river and create green connections between city parks and the riverfront. Expand existing recreational activity along the river, such as waterfront festivals, kayaking and rowing. Preserve views to the river by limiting building heights and protecting important view sheds.

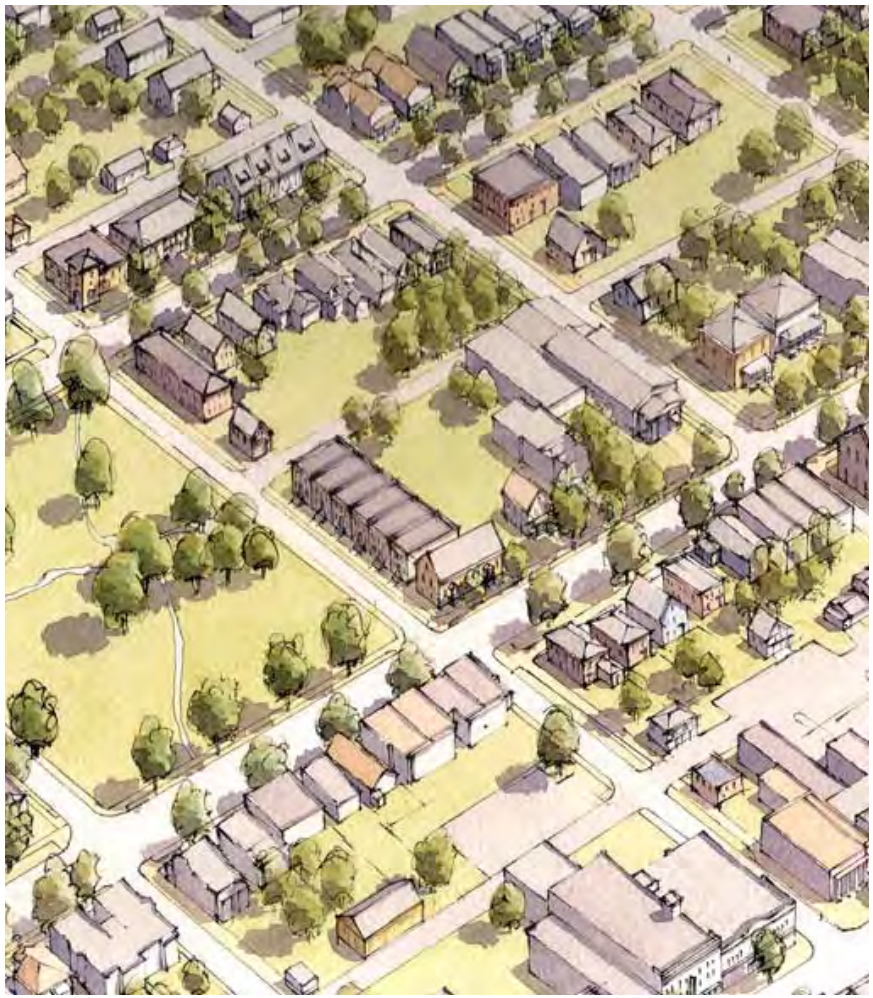
5. URBAN ARCHITECTURE
We can learn many lessons from Richmond's historic urban architecture. Require all new construction within the Downtown to respect and reinforce its urban location, relating to the scale and character of the adjacent buildings and fronting the street with windows and primary entrances. Promote ground-floor, street facing retail, residential, and office uses, and ensure that parking garages are lined with street-front buildings.

6. HISTORY
Richmond's past is one of its most valuable assets for the future. Celebrate and promote Richmond's history with an aggressive historic preservation program and a coordinated system of history trails, museums, and interpretive sites. Focus not only on "historic" events but also reveal the day-to-day story of the city, for example by exposing the cobblestones beneath Downtown's asphalt streets.

7. MIXED-INCOME
Healthy cities cater to economic diversity. In order for Richmond to achieve vibrancy Downtown, it must encourage economic diversity. Attainable housing for current Downtown residents and newcomers is important to ensuring economic diversity as more investment occurs and new housing is provided. Mixed commerce should be encouraged, so that residents at all income levels can fulfill their daily needs within reasonable proximity of their home.

The district, and indeed as many of its internal parts as possible, must serve more than one primary function; preferably more than two. These must insure the presence of people who go outdoors on different schedules and are in the place for different purposes, but who are able to use many facilities in common.

Jane Jacobs, "The need for mixed primary uses,"
The Death and Life of Great American Cities



A mix of uses within a walkable neighborhood provides convenience & choice for residents.

VARIETY AND CHOICE

Promote Richmond's competitive advantage by further diversifying land uses, building types and sizes, and providing a full range of transportation options.

In recent years, Downtown Richmond has been unable to meet its development potential due to competition from rapidly-growing outlying suburbs. Part of the problem, however, is the belief that Downtown must compete by offering popular suburban amenities. These amenities include abundant parking, convenient and quick automobile access, and large-scale "mega-projects," all of which are in opposition to the very nature of Richmond's traditional urban fabric. Parking, automobile access, and larger-scale development can all be accommodated Downtown, but should be developed in a manner respectful of the urban context. Downtown must accentuate its inherent competitive advantage: variety and choice.

Downtown Richmond has many unique, vibrant districts whose distinct character is a result of a diversity of land uses, building types, and residents. Jackson Ward, Monroe Ward, Oregon Hill, Shockoe Slip, and Manchester are just a few examples of Downtown neighborhoods that provide a mix of uses and a variety of housing options for residents. Not coincidentally, these neighborhoods are considered key contributors to the character of Downtown, and they play an important role in attracting new residents, businesses and visitors to the city.

Whenever possible, Richmond should look to its vibrant and well-loved districts to guide future growth. Zoning laws should be reformed to remove unnecessary requirements that tend to prohibit mixed-use environments, such as high parking requirements, and suburban landscaping requirements. Additional efforts should be put forth to encourage people to live Downtown. Increasing the residential population in the vicinity of local businesses and civic uses will help to stimulate social and economic activity Downtown. Encouraging a balance of people living and working Downtown has several other benefits. With more people living close to work, there will be fewer daily trips that rely on the regional road network.

Urban environments are complex and adaptable.

In the same way that healthy ecosystems require the complex, varied

habitats that support "biodiversity," human societies and economies require intricately mixed environments that reflect and adapt to the widely varying, ever-changing scales of our households, industries, and institutions. Urban environments are complex and adaptable because they have a high population density that is incorporated into an inclusive network of streets and blocks. This concentration of many people within an understandable urban pattern allows for a high level of diversity – of people, incomes, buildings, businesses, and ways of getting around. Jane Jacobs, a great champion of urban living, pointed out the relationship between population density and diversity in her book The Death and Life of Great American Cities. In the book she explains, "City populations are large enough to support wide ranges of variety and choice…the diversity, of whatever kind, that is generated by cities rests on the fact that in cities so many people are so close together and among them contain so many different tastes, skills, needs, and supplies." The natural density of the traditional city allows for a wide variety of experiences and opportunities within close proximity to each other, and gives inhabitants and visitors a freedom of choice that is not available in suburban and rural environments.

Cities are naturally mixed-use, mixed-income, and multi-modal. Many post-World War II cities and suburbs divide housing, retail and office uses into separate districts, creating mono-functional enclaves that can typically only be reached by one means of transportation – the car. While this idea of single-use, spread-out cities once seemed attractive to many Americans, long commutes and lack of unique character have inspired a longing for density, variety and choice. Those seeking variety and choice have discovered that the traditional city offers a tried-and-true formula for this mixed-use, mixed-income and multi-modal environment.

Traditional cities, by their very nature, have relatively small blocks and a highly connected street network. This urban pattern allows for greater population density within a compact area, which creates a market for a wider variety of goods and services. The development of cities over time has resulted in a wide range of building types and sizes, from one-story, single family homes situated on a small lot, to highrise towers that take up an entire block. The settlement pattern of traditional cities is inherently mixed-use at all levels, beginning with the city itself. A city includes many different districts with distinct roles. The district is then broken down into many neighborhoods, which serve the needs of their inhabitants with a variety of shops, offices, and housing. The neighborhood is comprised of blocks, which contain many uses. Finally, the block is made up of individual buildings , which can contain ground-floor retail, office and housing within the same footprint.

Such a wide variety of neighborhoods and building types within the traditional city ultimately provides opportunities for people of all ages, backgrounds, cultures and income levels to live and work. In contrast to suburban development, which generally offers only one housing type- the single-family detached home- traditional cities offer a range of housing options, including single-family homes, rowhouses, garden apartments, and loft conversions that are transforming many industrial districts. Each of these housing types is located within mixed-use blocks and districts, allowing for residents to meet their daily needs and conveniences in a dynamic urban neighborhood.

As the centers of commerce and trade, cities provide an incredible variety of employment opportunities; capitol cities such as Richmond have the added opportunity of government employment. With a city's commercial and residential life follows cultural facilities and retail establishments. Young professionals, CEOs, students, doctors, government officials, shopkeepers, retirees, and families alike can all find their place in the city, due to the incredible diversity of jobs, housing types, cultural amenities, and means of transportation.

This incredible variety of land uses, housing types, employment opportunities, and incomes levels within a traditional urban fabric provides the freedom of choice, a privilege not afforded to residents of mono-functional suburbs. This freedom is particularly felt in the realm of transportation. Traditional cities have a high level of connectivity, and are therefore the ideal environment for pedestrians, bicyclists, and transit riders, while balancing the needs of motorists. This range of transportation options allows inhabitants to select the travel mode that works best for them. The benefits of multi-modal transportation networks are discussed in more detail under the plan foundation, "Traditional City."

"Most blocks must be short, that is, streets and opportunities to turn corners must be frequent…frequent streets and short blocks are valuable because of the fabric of intricate cross-use that they permit among the users of a city neighborhood."

– Jane Jacobs, "The need for small blocks,"
The Death and Life of Great American Cities

Hull Street has great potential to become a multi-modal street.

TRADITIONAL CITY

Pedestrians and transit riders thrive in traditional cities.
In contrast to the automobile-centered streets that became ubiquitous in a nationwide experiment fifty years ago, traditional city streets were designed as an integral part of the city's public space. They were designed to serve a balance of needs, including movement, building access, and ultimately, civic pride. They were detailed to accommodate a range of transportation options that have evolved over time, from horse-drawn carts to bicycles, from streetcars to automobiles. Throughout time, they have accommodated many different users, allowing pedestrians, bicyclists, transit, and automobiles to have equal standing in the roadway. Because of their versatile design, traditional streets are walkable, accessible to all, interesting, comfortable, safe, and memorable. Traditional streets can take a variety of forms: monumental boulevards that showcase high quality buildings, mixed-use avenues that provide great addresses for sustainable commerce, and residential streets that define livable neighborhoods. While each of these street types is distinct, they all support a thriving pedestrian and transit system by virtue of their versatile design. These alternative modes of transportation are becoming increasingly critical as alternatives to automobile use.

Downtown Richmond has the street network and much of the historic architecture in place to support a rebirth of traditional modes of transportation.
Downtown Richmond is perfectly suited to support a rebirth of traditional modes of transportation, thanks in part to Major William Mayo, who laid out the original city grid 1737. His basic layout of small blocks and street grid that was established in the eighteenth century continues to offer benefits for a new generation of Richmond residents, traders, and visitors. This small block pattern allows for a high level of connectivity throughout the Downtown and gives users a range of choices of routes through the city. This is ideal for pedestrians, who must reach their destination as efficiently as possible, and often cannot afford to walk an extra half-mile beyond their destination and backtrack, as suburban street networks often require. It is important to keep the existing grid of streets; streets that have been closed due to privatization should be reopened and kept as public amenities.

Richmond offers not only an ideal street network for pedestrians, but also the mix of uses and the historic urban architecture that makes walking along Downtown streets comfortable and engaging. Pedestrians have the opportunity to do convenience shopping in ground-floor shops on their way to work, and are drawn to the human-scale detailing of Richmond's urban architecture, such as doorways and windows, cornices, eaves, awnings and pedestrian-scaled signage. This fine-grain street network and an engaging pedestrian realm support not only pedestrian movement, but also a vibrant transit system. An active pedestrian population is essential to the success of transit. A streetcar or train system that runs through an unfeasible pedestrian environment will ultimately fail due to lack of riders.

Encourage these alternative modes of transportation by restoring the two-way traffic pattern, re-introducing a trolley system, and reconsidering parking requirements for urban buildings.

While Richmond has much of the infrastructure in place for a return of pedestrians and transit riders, it is not yet fully prepared for a rebirth of traditional modes of transportation. Over time, Richmond's walkable streets have been disturbed by the trend of giving automobiles preferential treatment over other forms of transportation. Streets that were traditionally two-way in the Downtown were transformed into one-way thoroughfares designed for automobile speed and movement. These one-way streets have negatively impacted Richmond's connectivity in two ways: they have reduced access to businesses and residences in the Downtown by forcing users to backtrack, and they have inadvertently promoted speeding through the Downtown, creating a safety hazard for pedestrians and diminishing the livability of the public spaces.

Reversion to two-way traffic is crucial for a vibrant pedestrian and transit community. Historically, two-way streets have slower traffic speeds than one-way streets; slower speeds make roadways safer for pedestrians and further enhance walkability Downtown. Two-way streets perform far better for storefront businesses by allowing users to pass by in two directions. During the charrette, transportation planners Hall Planning and Engineering reviewed all existing one-way streets to determine the

Broad Street has historically served as a multi-modal center of Downtown.

On-street parallel parking serves an important function in Downtown.

A streetcar operated on Hull Street at the turn of the 20th century.

THE BENEFITS OF SHARED PARKING

"In many instances, efforts to accommodate parking for motor vehicles have overextended actual need. An important case in point is the approach used by many cities to establish vehicular parking requirements— typically a generic formula based on satisfying maximum demand for free parking… In practical terms, this practice increases the cost of development and creates disincentives with respect to infill and brownfield redevelopment. In addition, generic parking requirements create excess parking spaces that consume land and resources, encourage automobile use and associated pollution, and degrade water quality. "…By allowing for and encouraging shared parking, planners can decrease the total number of spaces required for mixed-use developments or single-use developments in mixed-use areas. Developers benefit… from the "captive markets" stemming from mixed-use development. For example, office employees are a captive market for business lunches at restaurants in mixed-use developments."

U.S. Environmental Protection Agency, Parking Alternatives: Making Way for Urban Infill and Brownfield Redevelopment (EPA 231-K-99-001, December 1999).

feasibility of one-way operation reverting to two-way operation. It was determined that a phased reversion to two-way traffic on Downtown streets was an important step toward improving Downtown's vibrancy. (Additional information on one-way streets can be found in Chapter 5: Transportation Analysis.)

Richmond had a vibrant streetcar system from 1888 until 1949 when it was replaced by buses. More than thirty lines ran throughout the city, and ultimately fueled the building of many of Richmond's finest first-ring neighborhoods. These streetcars allowed workers, residents, and visitors to move through the city quickly and conveniently, with minimal disturbance to the traditional street design. Richmond has long considered bringing a streetcar line back to its Downtown streets. An east-west connection through Downtown would reduce dependence on automobile trips, both for convenience trips during the day and for daily access into the city center. Coordinating this trolley system with regional transportation centers such as Main Street Station would open alternative means for commuting to Richmond. This streetcar could be integrated into the existing streetscape, and balanced with many other needs, such as automobile lanes, on-street parking, and wide sidewalks for pedestrians.

The Downtown parking system should be reformed. While the existing system is quite progressive, allowing for parking reductions and waivers in mixed-use, walkable districts, the calculation standards must be reformed and Downtown's existing parking supply must be better maintained. Underground parking is recommended in the core. Minimum parking requirements for buildings should be abolished. Shared parking systems should be encouraged, in which different businesses with different peak hours of use can share parking spaces. These parking spaces can be created and maintained by a centralized parking authority. The location, rates, and quantity of these shared parking spaces will be determined by market forces.

Maintenance of basic infrastructure system is the "first impression" of Downtown.
While Downtown Richmond boasts a strong interconnected grid street network and a walkable series of urban blocks, portions of its basic

infrastructure system are failing. In some areas of Downtown, curbs and sidewalks are in disrepair, trees and tree wells are poorly maintained, and street lighting is inadequate. These failures are clearly evident to all who frequent Downtown. Mayor L. Douglas Wilder's City of the Future initiative is focused on improving basic service provisions in the City, including addressing long-deferred maintenance of streets and sidewalks. A clean, well-kept infrastructure system instills confidence in investors that their investment will be supported by the City and creates a safer, more inviting environment for residents, workers, and visitors. This "first impression" is a critical component in conveying a positive image of Downtown Richmond.

An exemplary arts environment enriches cities.
It's well established that a vigorous arts scene is good for a region's economic development. It has proven to be an important inducement for businesses seeking a rich, diverse, and sophisticated lifestyle for its employees and their families. It is a critical economic engine that fuels universities and colleges, hotels and restaurants, retailers and entrepreneurial enterprises. But for great cities, an exemplary arts environment is more than an amenity or attraction. Great cities of the world inspire, uplift, instruct and heal with their particular brand of great art. They attract and nourish a subset of citizens who produce both energy and art for consumption by the community.

For Richmond, a city on the brink of an exciting downtown renaissance, and a region that supports our urban core, public art must be continually woven into the fabric of the City's growth, development, and education. The art and invention of the future requires guidance, oversight and vision. Great cities with great art require strong public arts commissions to guide, protect and advance them, with the support and backing that represents what the community aspires to become.

Cobble streets and sidewalks reinforce the unique character of Downtown.

The "Thin Blue Line" on the side of the Richmond Police Headquarters building and the pedestrian bridge to Brown's Island are inspiring works of public art in Downtown.

Central Park in New York City provides recreation opportunities and access to nature.

Street trees provide shade for pedestrians and create a unified streetscape.

URBAN HEAT ISLANDS

The "urban heat island" phenomenon describes the rise in temperature that occurs in many urbanized areas. In these areas, sunlight is reflected off of dark rooftops and exposed pavement, creating unnatural elevations in temperature and wasting energy. The urban heat island is tamed with street trees and roof gardens, which absorb sunlight and provide shade. Urban trees are thus essential for not only controlling glare and improving air quality, but also for conserving energy.

The U.S. Environmental Protection Agency

Sustainable stormwater management can be raised to the level of civic art among parks and streetscapes.

GREEN

Great parks and sustainable design make cities livable.
Residents of densely populated cities typically do not have a substantial private yard. As such, they depend upon public parks and trails for their connection to nature and for their recreation needs. A great park system can provide relief from an intensely urban environment, thus making a city more livable. This is evident in New York City, where Central Park makes the extreme urban conditions of Manhattan livable and pleasant. Environmentally-friendly design is equally important to the well-being of city residents and visitors. Strategies such as roof gardens, urban forestry, sustainable stormwater management, and green architecture all serve to reduce the carbon footprint of a city and improve the lives of residents.

Attract new residents and visitors to Downtown with an integrated system of urban parks.
During the charrette process, community members expressed the desire for a "greener" Downtown that had more street trees and park spaces. As a result, the Downtown Plan places importance on balancing infill development and redevelopment with restoring and protecting open space. Although Downtown has a number of urban parks, and the James River waterfront provides hundreds of acres of natural open space; residents agreed the park system needs improvement. First, many of Downtown's existing parks are difficult to access, preventing residents and visitors from using them to their full potential. A system of trails and pedestrian-oriented, tree-lined streets that connect the parks should be developed, and wayfinding elements such as lighting and signage should be provided. Second, many neighborhoods do not currently have their own park space nearby. In these locations, small, urban parks should be introduced. Such parks should be distributed throughout Downtown neighborhoods so that green spaces are more accessible. Finally, integrating and promoting the riverfront park as the frontyard to Downtown will attract more residents and visitors, therefore more economic value.

Celebrate Richmond's existing park system, and increase public access to parks.
Downtown has a truly unique stock of urban parks, each of which provides a different experience. From hillside lookouts to elegant 18th-century park grounds, from the highly constructed Canal Walk to the

startlingly wild James River rapids, each park tells a different part of the history of Richmond. The inherent character of these parks is attractive and engaging for both residents and visitors, however many of the parks are not sufficiently maintained to provide a positive experience for users. Reliable maintenance of these existing parks will open many new opportunities for outdoor recreation in Downtown. Efforts to restore and maintain Richmond's parks have begun with Monroe Park, adjacent to Virginia Commonwealth University. This culturally rich, nearly 200-year old park is receiving a facelift with rehabilitated public facilities, new shade trees, improved lighting, and wireless Internet access. These improvements will allow Monroe Park to become a vibrant public space for VCU students and surrounding Downtown residents.

Initiate an ambitious street tree campaign.
During the charrette, citizens voiced serious concerns regarding the maintenance of existing street trees and the need to plant new street trees. Street trees play an essential role in the urban forestry of a city, helping to reduce the emission of carbon dioxide and other greenhouse gases. Above all, street trees create a comfortable pedestrian environment by enclosing the sidewalk and providing shade. Downtown Richmond's street trees are inconsistently planted and insufficiently maintained. In order to reap the ecological benefits of a full urban tree canopy, Richmond must begin a street tree campaign. The City Arborist indicated that 1,200 trees are removed annually in the city; approximately 450 are replanted annually. The City should plan for regularly-planted trees on most Downtown streets and set aside funds for their proper maintenance. Sufficient space must be allocated for the tree planters so that the root systems will thrive in an otherwise harsh environment. Finally, an appropriate native tree species must be chosen that will be hearty enough to survive an urban environment, provide adequate shade, be of an appropriate height that will not obstruct the sidewalk or travel lanes, and will not drop fruit or seeds on the sidewalk.

Incorporate sustainable design into all new buildings and infrastructure projects in order to create a fully "green" city.
Parks improvements and street tree plantings are two important steps towards a sustainable urbanism. Additional steps will reduce Downtown's environmental footprint. Construction of roof gardens and "green roofs", in place of heat-absorbing conventional rooftops, provide cooler surfaces. Green roofs help to reduce the urban heat island effect, lower cooling costs, and provide additional green space for residents and animals while slowing the rate of urban stormwater runoff. On-site stormwater management for urban buildings is another component of a sustainable design strategy. Options include cisterns, green roofs, rain tanks, storage cells underneath city streets, or street tree planters. Implementing a city wide systemic approach to managing urban stormwater will reduce the strain on the city's combined sewer system. Finally, new regulations can be set for sustainable construction and building design. These rules would encourage sustainable construction practices, and energy-efficient building design, utilizing cross breezes and solar energy for the benefit of inhabitants. Such practices would ultimately reduce the carbon footprint of the entire Downtown.

The City of Richmond has already taken steps toward achieving a more sustainable environment by endorsing the Climate Protection Agreement and the 2030 Challenge through the U.S. Conference of Mayors. These endorsements embody the City's commitment toward reducing global warming and fossil fuel consumption through more energy efficient City operations and City buildings, but also through land use policies that create compact, walkable communities.

Transportation accounts for one-third of all carbon dioxide emissions and the Department of Energy reports that vehicle miles traveled in the U.S. will increase by forty-eight percent between 2005 and 2030, more than doubling the expected increase in population over the same period.[1] Focus on reducing fossil fuel consumption in Richmond should continue. Specific implementation measures should be considered, such as reviewing zoning regulations or creating a Director of Sustainability position, and resource requirements should be evaluated on a regular basis in order to meet the defined goals in these agreements.

1 "Walk this Way: American cities test strategies to promote alternative transportation." On Common Ground, a publication of the National Association of Realtors. Summer 2008.

WHAT IS SUSTAINABLE DESIGN?

The linked domains of sustainability are environmental (natural patterns and flows), economic (financial patterns and equity), and social (human, cultural, and spiritual). Sustainable design is a collaborative process that involves thinking ecologically—studying systems, relationships, and interactions—in order to design in ways that remove rather than contribute stress from systems. The sustainable design process holistically and creatively connects land use and design at the regional level and addresses community design and mobility; site ecology and water use; place-based energy generation, performance, and security; materials and construction; light and air; bioclimatic design; and issues of long life and loose fit. True sustainable design is beautiful, humane, socially appropriate, and restorative.

TEN MEASURES OF SUSTAINABLE DESIGN

Sustainable Design Intent & Innovation
Sustainable design is rooted in a mind-set that understands humans as an integral part of nature and responsible for stewardship of natural systems. Sustainable design begins with a connection to personal values and embraces the ecological, economic, and social circumstances of a project. Architectural expression itself comes from this intent, responding to the specifics region, watershed, community, neighborhood, and site.

Regional/Community Design & Connectivity
Sustainable design recognizes the unique cultural and natural character of place, promotes regional and community identity, contributes to public space and community interaction, and seeks to reduce auto travel and parking requirements and promote alternative transit strategies.

Land Use & Site Ecology
Sustainable design reveals how natural systems can thrive in the presence of human development, relates to ecosystems at different scales, and creates, re-creates, or preserves open space, permeable groundscape, and/or on-site ecosystems.

Bioclimatic Design
Sustainable design conserves resources and optimizes human comfort through connections with the flows of bioclimatic region, using place-based design to benefit from free energies—sun, wind, and water. In footprint, section, orientation, and massing, sustainable design responds to site, sun path, breezes, and seasonal and daily cycles.

Light & Air
Sustainable design creates a comfortable and healthy interior environment while providing abundant daylight and fresh air. Daylight, lighting design, natural ventilation, improved indoor air quality, and views, enhance the vital human link to nature.

Water Cycle
Recognizing water as an essential resource, sustainable design conserves water supplies, manages site water and drainage, and capitalizes on renewable site sources using water-conserving strategies, fixtures, appliances, and equipment.

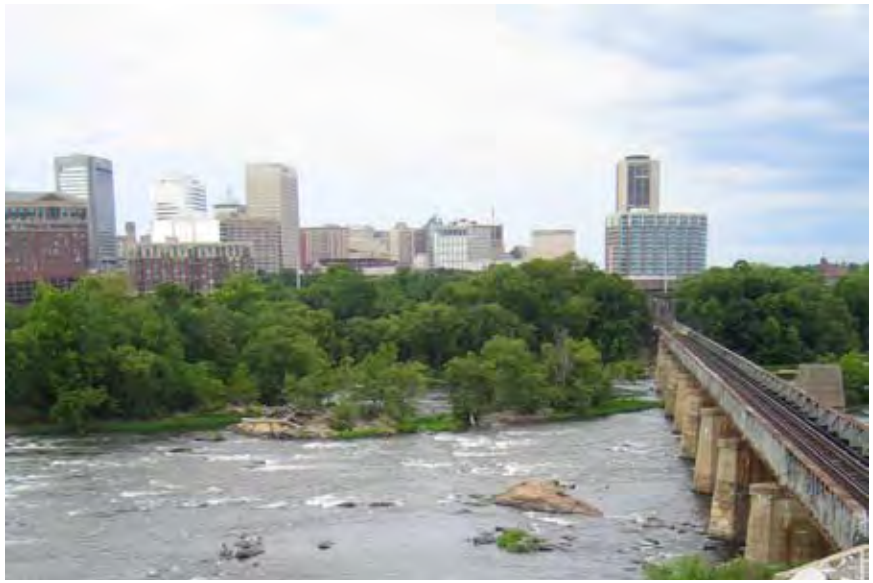
Energy Flows & Energy Future
Rooted in passive strategies, sustainable design contributes to energy conservation by reducing or eliminating the need for lighting and mechanical heating and cooling. Smaller and more efficient building systems reduce pollution and improve building performance and comfort. Controls and technologies, lighting strategies, and on-site renewable energy should be employed with long-term impacts in mind.

Materials, Building Envelope, & Construction
Using a life cycle lens, selection of materials and products can conserve resources, reduce the impacts of harvest/manufacture/transport, improve building performance, and secure human health and comfort. High-performance building envelopes improve comfort and reduce energy use and pollution. Sustainable design promotes recycling through the life of the building.

Long Life, Loose Fit
Sustainable design seeks to optimize ecological, social, and economic value over time. Materials, systems, and design solutions enhance versatility, durability, and adaptive reuse potential. Sustainable design begins with right-sizing and foresees future adaptations.

Collective Wisdom & Feedback Loops
Sustainable design recognizes that the most intelligent design strategies evolve over time through shared knowledge within a large community. Lessons learned from the integrated design process and from the site and building themselves over time should contribute to building performance, occupant satisfaction, and design of future projects.

"Definition of Sustainable Design",
American Institute of Architects' Committee on the Environment



The James River is the heart of Downtown Richmond.

The Canal Walk has provided a much needed connection to Richmond's waterfront.

RIVER

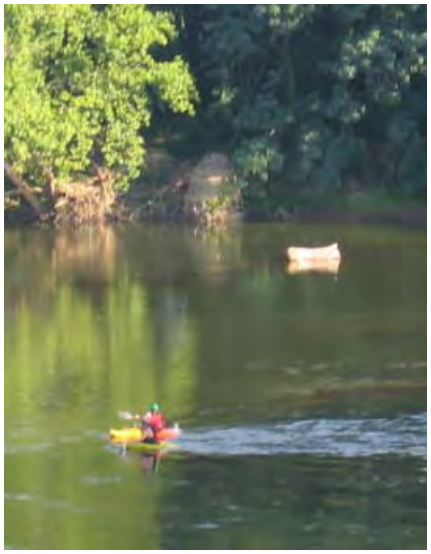
The James River is Richmond's "great, wet Central Park."
The James River is the historic heart of Richmond, giving the city its original reason for being. Today it continues to serve as a dramatic centerpiece for the city gathered along its banks. The James River provides natural contrast to the intense urbanity of Downtown, and green relief from the pattern of masonry buildings and paved streets. Over time, the James River's role as the heart of Richmond's industry and commerce has evolved. Today it is known instead for its unique recreational opportunities, such as rock-climbing and nationally recognized kayaking.

Allow residents and visitors to fully enjoy this unique natural feature by creating a series of clear connections to the riverfront.
Although the James River is the geographic center of Downtown, it is difficult for residents and visitors to directly reach the waterfront. One obstacle to accessibility is the layering of infrastructure that lines the riverfront, including the canals that George Washington surveyed, the railroad lines built on top of the canal tow-paths, and the recently constructed floodwall. Another challenge to riverfront access is the fact that many Downtown streets simply do not continue to the riverfront, which was traditionally a place of heavy industry. Some of the streets that do extend to the river are elevated bridges, thus they are separated from the waterfront and do little for river access. Thus, a key strategy for improving access to the James River is to create clear, pedestrian-oriented connections between city parks and the riverfront. This will diversify recreation opportunities Downtown and provide new ways for residents and visitors to experience their city. Moreover, it will establish dedicated pedestrian ways through the city, enhancing new modes of transportation. A more hands-on, up-close experience of the river will be possible with the creations of a low pedestrian bridge across the river that allows users to enjoy the rapids and engage in recreational activities such as fishing.

Develop a comprehensive system of natural open space along the river and create green connections between city parks and the riverfront.
Richmond has a significant amount of natural open space lining the banks of the James River; however, much of this natural open space is found in isolated pockets. There is currently no continuous public pathway along

the length of the riverfront, although the Canal Walk has provided a much needed linear connection near the water. A key obstacle is that much of the riverfront today is privately held, and many areas are restricted for public access. The City should work with private property owners to assist in the creation of a continuous public waterfront along the river, a feat that has been achieved in cities such as Austin, Texas and Norfolk, Virginia. Where possible, additional waterfront park land should be acquired and made available for public use. Where this is not possible, clearly marked pathways should be created to connect Downtown's riverfront parks, allowing visitors continuous access to the waterfront and an engaging experience of Downtown's natural features.

Promote recreational activity along the river, such as waterfront festivals, kayaking and rowing.
Improving access to the riverfront will increase its vibrancy and open it up to a wider range of users. In order to fully optimize the riverfront's potential, however, a careful balance of passive and active recreation must be planned. More central, easily accessed, and traditionally developed portions of the riverfront, such as Brown's Island, should continue to be promoted as places for programmed recreation, with waterfront festivals and concerts bringing activity to the waterfront. The proposal for the marina at the former Intermediate Terminal should be promoted as part of the riverfront and should integrate continuous public access parallel to the water's edge landward of the marina. Mayo Island should be acquired by the City, physically overhauled, and promoted as public open place. If the island is not acquired for public use, any redevelopment of the island should include significant open space components. This should include public space along 14th Street and around the entire perimeter of the island, maximizing views and allowing for public access to the James River. Certain areas of the island should be dedicated to more active uses and others restored to a natural state. Richmond's reputation for world class kayaking and rock-climbing should continue to be promoted, and improved facilities for these sports should be provided.



The James River should continue to be promoted as a recreation destination.

The dramatic views of the James River should be protected by limiting building heights.

Preserve views to the river by limiting building heights and protecting important viewsheds.
Downtown's dramatic topography affords striking views of the river; by some accounts, Richmond received its very name because its view of the James River was similar to the prospect from Richmond-upon-Thames, England. Although periodic flooding traditionally prevented building along the riverfront, the construction of the floodwall has opened much of the riverfront up for development. This new possibility of construction has created controversy as developers propose high-rise office buildings and condominiums lining the riverfront, effectively blocking the view of the river. It is essential that rezoning of land and new construction in Downtown be carefully considered and that building heights be controlled to protect these historic views.

Richmond's historic urban architecture respects the human scale.

New construction in Downtown should respect the street and be pedestrian-oriented.

URBAN ARCHITECTURE

We can learn many lessons from Richmond's historic urban architecture.

Downtown Richmond has a memorable collection of urban buildings that represent over two centuries of craft and civic pride. These buildings were created during a long period when the human scale and the fully functional streetscape were shared values, and the prevailing habits of construction resulted in street-oriented buildings. Building placement, scale and proportion are key elements in Richmond's proud historic streetscapes, and several norms were followed from Colonial times until the 1940s. For example, these historic buildings were built at a consistent setback from the street in order to create a continuous and comfortable pedestrian realm. Even the early twentieth century skyscrapers, which are up to 20 stories tall and have the potential of looming over the street below, were subtly proportioned by their architects; architects designed the towers to step-back in increments that respect the street on which they are located. Central National Bank and John Marshall Hotel are good examples of high rise buildings.

The very construction and detailing of these buildings further reinforces their urban location. Historic buildings display proud craftsmanship that takes advantage of the public audience of the street. Windows are abundant and generously sized, and relate to the human scale. Brickwork, window and door surrounds, and intricate cornices all serve a distinct purpose and all contribute to the liveliness of the public streetscape. Richmond's historic architecture consistently fronts the street with primary building entrances, and generous shopfronts or windows, which serve to engage the pedestrian and promote street activity. Awnings, balconies, porches, and colonnades, all features of Richmond's traditional architecture, provide shelter from the sun and rain in a manner that contributes to the aesthetic of the street.

Require all new construction within the Downtown to respect and reinforce its urban location, relating to the scale and character of the adjacent buildings and fronting the street with windows and primary entrances.

Where infill development opportunities exist in Downtown, new construction should take its cue from the neighboring historic buildings, thus reinforcing its context. Where appropriate through development review

and zoning requirements, new buildings should address the street in a manner that is consistent with the traditional buildings in the area. Many buildings constructed after the 1950's did not follow the traditions. At all times buildings should relate to their scale and height, even if this means stepping the building back where it rises above neighboring buildings. Infill development should respect the material and architectural vocabulary of nearby historic structures, and should address the street with entrances and windows that are consistent with the historic streetscape.

It is essential that all infill be appropriate to its particular urban condition. In districts where two-story rowhouses, apartment buildings, and corner stores predominate, infill construction should be consistent with the scale and character of the neighboring buildings, reinforcing its location rather than detracting from it. This similarly applies to more intense urban conditions, such as the City Center where main street buildings and more substantial towers predominate. A form-based code that will regulate the height, shape and orientation of new construction in Downtown will ensure an appropriate pattern of infill development. The diagrams, illustrations and text created for the Downtown Plan should be used to inform a form-based code.

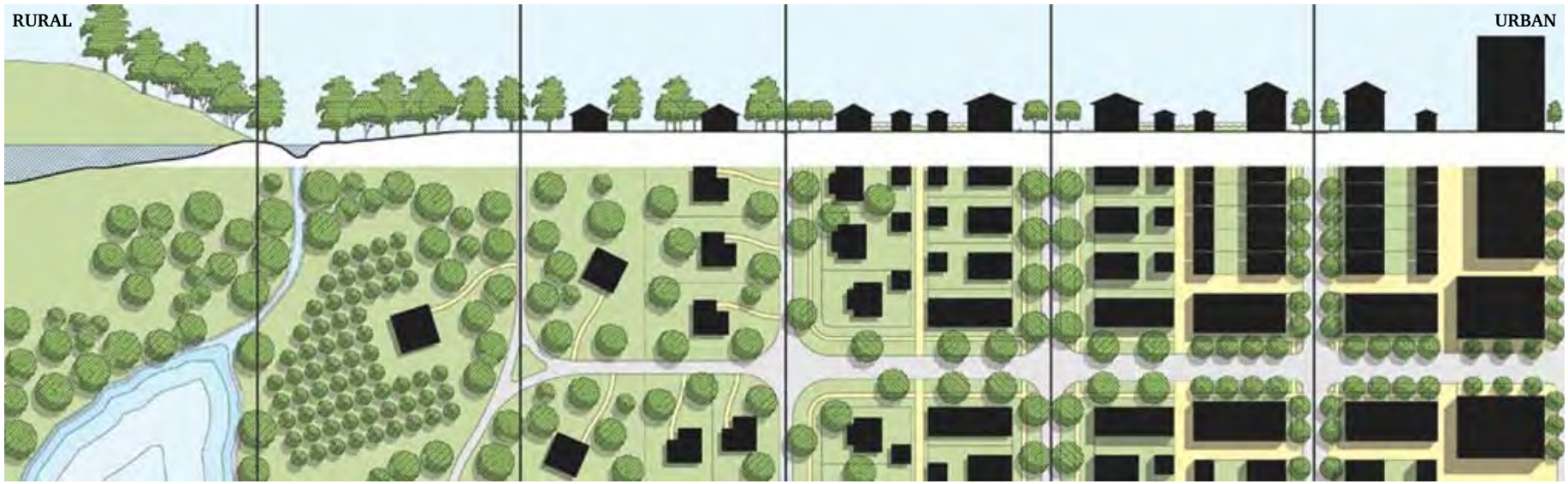
Promote ground-floor, street facing uses, such as retail, residential, and office, and ensure that parking garages are lined with street-front buildings.
A consistent characteristic of Downtown's urban architecture is the manner in which it fronts the street. The ground floor of every building, from urban single-family homes to art deco skyscrapers, is street-oriented, facing its primary façade, main entrances and windows towards the sidewalk. Ground floor shops and restaurants consistently front the street with large storefront windows. All of these elements serve to provide interest and activity along the sidewalk, thus enhancing the pedestrian realm. It is essential that this tradition of street-front activity be reinforced and maintained. New parking garages should not be permitted to front the street, as they detract from the pedestrian realm. Where parking garages are necessary, they should be located underground as a first choice, since parking on upper floors takes up valuable real estate. If an underground structure is not feasible then aboveground structured parking should occur mid-block, behind urban "liner buildings". Liner buildings should contain habitable space, so that the street scene is overseen by windows and doors and occupied spaces. This will provide a continuous, engaging street environment for pedestrians.

Public art creates more livable urban spaces.
Explore public art as a means of providing a sense of community by creating more livable urban spaces and improving the quality of life for all citizens. Recognizing that art in public places enriches the social and physical environment, and provides experiences that enable people to better appreciate their community, the City should encourage ownership and pride in community-shared public spaces. The Public Art Commission should work in active cooperation with neighborhood residents and artists to enhance the community's vision for its cultural future. Public art contributes to the quality of life for all of Richmond's residents, as well as to the City's economic development.

Infill development Downtown should respect the scale and character of the neighborhood.

DOWNTOWN CHARACTER AREAS

Each area in Downtown Richmond can be classified according to its character. Character is a function of an area's specific characteristics, including density, intensity and physical form. The following pages present a Character Map of Downtown along with Character Area definitions that explain the designations on the map. The Character Map and Character Area definitions will serve as a tool to guide future development in Downtown and implement the vision of the Downtown Plan. The Character Map is based on existing physical conditions that were analyzed during the planning process. It corresponds with the Illustrative Plan that was created with input from the community during the charrette process. The Character Map serves as the regulatory document for the Downtown Plan.



**Graphic Credit: Duany Plater-Zyberk & Co.*

Implementing the Vision

Each Character Area has a unique set of urban design qualities, including building orientation and height, sidewalk configuration, and streetscape standards. Once a particular area's character is determined, the City is better equipped to make appropriate design recommendations for that area. Where property lies within a designated 100-year floodplain, the height recommendations (i.e. number of stories) for the Character Area should be calculated from the top of the floodplain, not from the actual ground level. All other features associated with a Character Area are applicable as described to properties within a floodplain.

Character Areas should be used as a tool to add predictability and objectivity to the development process in Downtown. The City of Richmond Code of Ordinances, Article 4 currently requires all major development approvals to be in keeping with the general character of the surrounding area. The Code, however, fails to provide a specific definition of character. The Character Areas provide a definitions of character that can be used to guide future development. These character definitions are based on the physical conditions of the place and are applied to the regulating document, the Character Map. The Character Map serves as the Land Use Map for Downtown. The City's Master Plan and Land Use Plan should be amended to include the Downtown Character Map and Character Area text.

Downtown Character Map

Downtown Richmond is comprised of seven distinct Character Areas, illustrated on this map in different intensities of color. Future development in Downtown should comply with the existing physical qualities of its particular Character Area. These physical qualities are described in the following pages.

Civic Area

Natural Area

General Urban Area

Urban Center Area

Urban Core Area

Municipal Infrastructure Area

Future Development Area

Natural Area
The Natural Area is characterized by a wilderness landscape that is untouched by development, and whose ecological features are preserved. The uninhabited islands in the James River are an example of a wilderness condition in Downtown Richmond. These islands remain unsettled due to periodic flooding of the river, and are preserved in their natural condition.

Building are typically not located in Natural Areas, except in special cases.

Although Rural Areas are not applicable to Downtown Richmond, the City of Richmond has some Rural Areas.

Rural Area
The Rural Area is characterized by an open or agricultural landscape that is sparsely settled. The estates along the James River are an example of a rural condition in Richmond. These estates feature manor homes surrounded by expansive lawns and rolling hills.

The ratio of building to landscape is very small in Rural Areas. Land is dedicated to open space or agriculture.

Although Sub-Urban Areas are not applicable to Downtown Richmond, the City of Richmond has many Sub-Urban Areas.

Sub-Urban Area
The Sub-Urban Area is characterized by low-density residential development on a connected street network. The Windsor Farms neighborhood represents the sub-urban condition in Richmond. This neighborhood consists of low-density, single family homes with land scaped setbacks.

Buildings are typically detatched and no more than two stories in height. They are placed on wider lots and set back from the street behind a landscaped yard. Uses are more restricted in the Sub-Urban Area. Parking is located on-street, in driveways, or at the rear of the lot. If rear alleys exist, parking is accessed from the alley. Sub-Urban Area lots are defined by a high ratio of open landscaped space to building footprint.

General Urban Area
The General Urban Area is characterized by medium-density, mixed-use development, distributed along medium-sized bocks. Old Manchester is an example of the general urban condition in Richmond. This district is characterized by single-family homes, sideyard houses, rowhouses, and small multifamily buildings, such as duplexes, triplexes, and quads. These buildings have variable setbacks and landscaping, and a limited mix of commercial and civic uses.

Single-Family Example
Buildings are either detached or attached in rows, and are typically no more than three stories in height. Narrow side setbacks exist between detached, single-family buildings, as illustrated above. The buildings are set back from the street behind a narrow, landscaped front yard. The front yard is landscaped to match the public frontage. Uses are less restricted. Parking is located on-street, or at the rear of the lot. If rear alleys exist, parking is accessed from the alley.

General Urban Area
Historic Jackson Ward is also an example of the general urban condition in Richmond. The district represents the historic pattern of settlement in Downtown Richmond, with a connected network of blocks and streets and buildings shaping the public space. A mix of buildings types exist in the neighborhood, ranging from single-family homes to rowhouses to mixed-use, main street buildings.

Rowhouse Example
In this illustration of a General Urban Area, rowhouses have many of the same urban characteristics as the Single-Family Example, shown on page 3.23.

Urban Center Area
The Urban Center Area is characterized by higher density, mixed-use development, typically arranged on a fine-grained street network, with wide sidewalks, regular tree planting, and minimal setbacks. The apartment buildings along The Boulevard are an example of a residential urban center condition in Richmond, with a dense urban fabric of three to five story buildings, and limited retail at key intersections.

Multi-Family Example
Buildings are typically attached in rows, or are larger buildings on larger lots, as seen in this example of a multi-family apartment building. They are typically no more than four stories in height. As illustrated in this image of the Boulevard, buildings are set back from the street behind a narrow yard. Parking is located on-street, or at the rear of the lot. If rear alleys exist, parking is accessed from the alley. The narrow front yard should be landscaped to match the public frontage.

Urban Center Area
Shockoe Slip is also an example of a classic urban center condition, with a dense mix of office space, apartments, and retail located in four to six-story brick buildings that front the street. Pedestrians have an active presence in these neighborhoods.

Multi-Use Example
Buildings cover a larger percentage of their lots than those in General Urban Areas. As seen in Shockoe Slip, buildings are located directly fronting the sidewalk. Uses are less restricted, and commercial uses are often located on the ground floor with large windows and doors fronting the sidewalk. The upper stories of buildings are typically a mix of office and residential uses.

Urban Core Area
The Urban Core Area is the most urban Character Area. This area is characterized by high density, an intense mix of uses, and civic buildings of regional significance, distributed along urban blocks with wide sidewalks, regular street tree plantings, and buildings that front the street. City Center is an example of the urban core condition in Downtown Richmond, with tall buildings that contain a range of office, residential and retail space. Continued pedestrian-oriented development will support a vibrant street realm in City Center.

Buildings are typically located on larger lots, and one building may cover a significant portion of the block. They are typically five or more stories in height. Buildings are located directly fronting the sidewalk. The ground floor of buildings is an active frontage with doors and windows fronting the street. Uses are minimally restricted, and commercial uses are permitted on the ground floor in all cases. Parking is located on-street, or mid-block in lined parking garages. If rear alleys exist, parking is accessed from the alley. Parking can also be located within a quarter-mile of the lot it serves. Open space is dedicated to public plazas that are shaped by human-scaled building façades.

Civic Area
The Civic Area refers to both buildings and open spaces. Civic Buildings are public sites dedicated for publicly used buildings dedicated to culture, government, and public gatherings. Civic Spaces are outdoor areas dedicated for public use. The Virginia State Capitol and its grounds is an example of a Civic Area in Downtown.

Civic Buildings and Civic Spaces are less restricted than other uses in Downtown, however they should relate to their context in a meaningful way.

Municipal Infrastructure Area
The Municipal Infrastructure Area refers to areas dedicated to public utilities such as water treatment, railyards, and other public utility uses. These uses are neccessary to the function of an urban area, however they are incompatible with most other uses, such as residential and office uses. Accordingly, Municipal Infrastructure Areas must usually be kept separate from the walkable urban fabric. The stormwater detention basin on Chapel Island is an example of a Municipal Infrastructure Area in Downtown.

Municipal Infrastructure Areas include industrial or public utility areas that cannot, by the nature of their use, be incorporated into the walkable urban fabric.

Future Development Area
The Future Development Area, commonly referred to as Gamble's Hill, includes properties generally bounded by Belvidere Street on the west, Byrd Street on the north, 7th Street on the east, and Tredegar Street on the south. The properties are owned by the NewMarket Corporation and its subsidiaries. Uses of the property include the corporate headquarters for NewMarket Corporation and MeadWestvaco Corporation, research and development facilities for Afton Chemical Corporation, a structured parking facility to serve the Federal Reserve Bank of Richmond and cultural purposes for the Tredegar National Civil War Museum. In addition to existing and under construction facilities, the property holds new development potential, and as such, is classified as a Future Development Area.

The Future Development Area on Gamble's Hill is regulated by the development guidelines included on the following page.

Fifth and Tredegar Streets traverse the Future Development Area and provide public access from the central business district to the north to the Canal Walk and riverfront. Accordingly, these corridors should provide a strong link to the canal and river. Amenities, such as ornamental lighting, street trees, benches, and wide sidewalks, should continue to be developed within the public right-of-way to encourage the use of these streets by pedestrians. Private property development along these streets can also serve to enhance the walkability of the area; therefore, utilitarian functions (loading docks, refuse removal, and vehicle parking) within future development projects along 5th and Tredegar Streets should not be located on the ground floor adjacent to these streets. Any other uses could be developed along these streets, but at least one retail use open to the general public should be fronting on one of these two streets in the Future Development Area. Second Street also bisects the Future Development Area, but does not provide a direct link to the canal and river. It does connect the area with the Lee Bridge; therefore, utilitarian functions should also not be located on the ground floor adjacent to this street.

Land uses within the Future Development Area may range from office and research to civic/cultural and mixed uses, which may include multi-family residential and retail, recreational, and entertainment uses at street level. The following development guidelines are intended to accommodate this broad range of potential uses within the Future Development Area:

1. The character of the district is generally established by the NewMarket Corporation headquarters, MeadWestvaco headquarters, the Federal Reserve parking garage, the Afton Research & Development Facility buildings and the Tredegar National Civil War Museum. Future development in the district should respect this variety of scale and character.

2. New development in the district should have a strong orientation to the James River and Canal Corridor, and should take advantage of views and proximity to the canal and riverfront areas with careful building orientation and consideration for the sloping terrain.

3. Development at the southeastern edge of the district within the canal corridor should reflect the desired pedestrian environment as described in the Riverfront Development Agreement between the City and the Richmond Riverfront Corporation.

4. River vistas from the overlook adjacent to the Virginia War Memorial Statue should be considered so that development will not adversely impact the perspective towards the James River from the southwest corner of the Pattern Storage Building on the Tredegar site to the Lee Bridge.

5. Views to the river should be considered as development occurs along 5th Street.

6. The need for a roadway link between 2nd and Tredegar Streets should be evaluated regularly as circulation and access requirements along Tredegar Street increase.

Richmond serves a central role in the history of the United States and the Commonwealth of Virginia.

Main Street Station has been restored and is now a community focal point.

HISTORY

Richmond's past is one of its most valuable assets for the future.
Richmond played a central role in some of the most significant events in our nation's history, from its very birth, through heart-wrenching eras of conflict and reckless progress, and so called "urban renewal" to its global present. Captain John Smith explored its riverfront, Patrick Henry demanded "Liberty or Death" in its oldest church, and Thomas Jefferson designed the State Capitol on its hillside. Richmond served as the capitol of the Confederacy during the Civil War, where its iron works produced the arms and equipment for the army, its prisons held Union soldiers, and its homes housed Confederate generals and politicians. The burning of Richmond at the end of the war left an indelible mark on the city. Following the war, Richmond's manufacturing and shipping businesses flourished, and its newly-freed African American community created a vibrant economic and social system within the Downtown. No matter what their age or significance, the historic buildings and streets of Richmond tell the day-to-day history of the city and of the nation. The depth and significance of Downtown Richmond's history is one of its most unique features, and if it is promoted and understood, it will serve as a powerful attraction for new residents, businesses and visitors.

Continue to celebrate and promote Richmond's history with a sustained historic preservation program and a coordinated system of history trails, museums, and interpretive sites.
Richmond should celebrate its most valuable asset, history, by making it more accessible to the public. This is possible through responsible historic preservation and cultural analysis, presented with history trails, museums, and interpretive sites. Preserving historic buildings is one of the most important ways that a city can maintain a unique identity, share its history with the public, and uphold a coherent urban fabric. The preservation of historic buildings and signature public spaces is essential to the revitalization and rebirth of Downtown. Historic architecture should not only be preserved, but also be maintained and adapted for contemporary use. There are many examples of successful adaptive re-use projects Downtown, such as Tobacco Row in Shockoe Bottom, The Dairy Building in Jackson Ward, and Plant Zero in Manchester.

Preservation efforts in Richmond have been successful, but more needs to be done to preserve and maintain Downtown's historic structures. Build-

ing upon the energy of the Downtown Plan, it is time to redouble historic preservation efforts and recognize the economic benefits of preservation. Many of the buildings on the Virginia Landmarks Register and the National Register of Historic Places have yet to be added to the local register. The City leadership and property owners need to strategize together on specific funding mechanisms and incentives to encourage the stabilizing and refurbishment of historic buildings, as well as expansion of City Old & Historic Districts to match the state and federal districts. The City and Commonwealth together should be setting the best possible example.

Richmond's extensive and varied historic districts should be reconsidered as unique attractions in and of themselves. The stately Court End, for example, is a rare collection of mid-19th-century civic buildings and fine homes that is currently disconnected and voiceless amidst the quickly developing MCV Campus and Virginia BioTechnology Research Park. This quarter, as well as many others such as Jackson Ward, Manchester, and Shockoe, should be recognized and promoted as an important destination within Downtown. Its history should be recognized and shared with the public through historic markers and appropriate care of this historic landmark.

Another way of presenting Richmond's history to the public is through a system of trails that interpret complex experiences. This process has begun with the construction of the Canal Walk, and the creation of the Richmond Slave Trail. The Canal Walk has opened up 1.25 miles of Richmond's historic Kanawha and Haxall Canals for public access and recreation. The Canal Walk features a series of historic markers and educational signs that interpret Richmond's complex industrial history to the public. The Richmond Slave Trail, currently being implemented, is another example of a linear historic experience. This trail is planned to begin in Manchester at Ancarrow's Landing, following the historic path that slaves once traveled from the ships to the slave market in Shockoe Bottom. The path connects a series of significant sites in African American history, including Lumpkin's Jail, the Slave Market, and the Slave Burial grounds. Educational markers are placed along the path, providing an important instructive experience for the public. There are a number of historic events and cultural experiences that could be rethought and presented to the public as trails, enhancing the historic appeal and educational value of Downtown. Additional trails should be added to Downtown such as one that links Capitol Square to the Valentine Richmond History Center, a Civil War trail and Jackson Ward trail would also be important. The Virginia Capital Trail is in the planning stages and will connect Williamsburg to Richmond.

It is important that the many perspectives in Richmond's history are accessible to the public. Historic sites should continue to be coordinated in order to present a more complete picture of Richmond's heritage. Downtown has many well-established museums that address all facets of the city's history, including the State Capitol, the American Civil War Center, the Museum of the Confederacy, and the Black History Museum in Jackson Ward. These museums have excellent resources and important stories to tell, however many are difficult to locate, unknown to the public, and disconnected from one another. It is critical that Richmond's unique museums work together to market themselves and create a connected system for tourists, to take advantage of the demand for heritage tourism. According to the National Trust for Historic Preservation, visitors to historic sites and cultural attractions stay longer and spend more money than other kinds of tourists. Richmond needs to further embrace its historic and cultural assets and increase marketing efforts to attract more visitors Downtown.

Focus not only on "historic" events but also reveal the day-to-day story of the city, for example by exposing the cobblestones beneath Downtown's asphalt streets.
While Richmond carries the distinction of dozens of nation-shaping events, it also has been a place of daily living for over three hundred years. The day-to-day life of the city is a fascinating story that should be shared with residents and visitors today. This can be done by simply making sure the historic environment is revealed in vital everyday use. For example, the cobblestones beneath Downtown's asphalt streets can be exposed for public experience, abandoned streets, tunnels and railroad lines can be made accessible and interpreted, and most crucially, Downtown's historic buildings can be preserved and reused.

A variety of ages and conditions of buildings provides opportunities for a greater range of businesses.

It is important that a range of housing options are available for all income levels in Richmond.

MIXED INCOME

Healthy cities cater to economic diversity.
The gradual development of traditional cities has resulted in four characteristics that sustain economic diversity. These characteristics include a mix of uses, an interconnected street and block network, a mixture of old and new buildings, and a dense population[1]. A mix of uses allows residents and businesses to thrive within a district by providing convenient access to housing, employment, entertainment, and diverse goods and services. An interconnected street and block network allows for numerous and convenient paths through the city. These paths support movement while providing convenient access by many modes of transportation, essential for those who cannot drive or afford a car. A mixture of old and new buildings, both large and small, allows small, local businesses to thrive side-by-side with larger companies. Finally, a dense population creates demand for a number of diverse goods and services within a tightly-defined social infrastructure, creating employment and entrepreneurial opportunity for those of all ages and backgrounds. This also increases a sense of safety Downtown.

In order for Downtown Richmond to achieve vibrancy, it must encourage economic diversity.
While there is a range of income levels and cultural diversity Downtown, such diversity is often located in distinct pockets. Lower-income residents and discount commercial enterprises tend to be located in many of the older residential neighborhoods, while new, wealthier residents and large corporations are located in the City Center and along the James River. Meanwhile, there is a relative absence of middle-income residents and families living Downtown. According to Claritas, only thirty percent of Downtown Richmond's residents are in households of more than 1 or 2 people, and more than thirty-eight percent of the population is not currently in the labor force.

Another challenge to vibrancy is the lack of affordable goods and services available to residents. Many Downtown businesses cater to City Center professionals, tourists and visitors. Most residents find it difficult to satisfy their daily needs within Downtown, and are forced to drive further out for errands. This detracts from economic diversity because it takes

1 Jacobs, Jane "The generators of diversity," The Death and Life of Great American Cities.

local business outside of the city and requires residents to be wealthy enough to pay for both housing and parking in a place where land values are high. In order to achieve greater vibrancy Downtown, there needs to be a strong presence of residents of all ages, family situations, and income levels living in close proximity. This diverse population must be served with attainable housing prices, a strong school system, and commercial and civic establishments that fulfill their daily needs. Streets must be walkable and transit must be reliable so that residents are not forced to own a car. Finally, education and training programs should be developed to provide employment and advancement opportunity for those of all social and economic backgrounds.

Create attainable housing so that workers live close to their jobs. To attract a diverse population, and ultimately become a dynamic urban destination, housing must be provided for all income levels and household types. The housing stock for such a community is already in place; the range of housing sizes, ages, and types allows a variety of households, ages, and income levels to live in the same neighborhood. New construction should continue to target a diverse residential population. Where appropriate, subsidies should be provided to fill the gap between market values and affordable housing needs. For example, many cities have partnered with local employers, universities, and medical institutions, to create employer-assisted housing benefit plans for employees. Through these initiatives, employers provide eligible employees with a forgivable loan of a set amount—typically between $2,000 and $15,000, depending on local housing costs—as well as housing information and education, and innovative financing options. Other successful mechanisms for promoting a mix of incomes in Downtown environments include gap financing, sales and income tax incentives, and double-bottom line funds. Additional information on each of these programs can be found in Chapter 6 – Market Analysis.

An important focus for housing needs in Richmond is the need for attainable housing, or housing that is affordable for a family being supported by the salary of one entry-level teacher, fire-fighter or police officer. Some methods for achieving attainable housing include loosening zoning restrictions on the supply of attainable housing units, such as density caps,

INCLUSIONARY ZONING

Inclusionary zoning is a legal tool which encourages the private sector to include a percentage of affordable units as part of a market rate development. The fundamental purpose of inclusionary zoning is to allow the development of affordable housing to become an integral part of new development taking place in a community. Inclusionary zoning ordinances vary widely. They are tailored to each community's specific needs and housing market, and are just one component of a larger housing strategy. A typical inclusionary zoning ordinance will set forth a minimum percentage of units to be provided in a specific development affordable to households at a particular income level, generally defined as a percentage of the median household income. The goal is to establish a relatively permanent stock of affordable housing units provided by the private market. In many ordinances, some form of incentive is provided by the municipality to the developer in return for the provision of affordable housing. These incentives can take the form of waivers of zoning requirements, including density, area, height, open space, use or other provisions; local tax abatements; waiver of permit fees or land dedication; fewer required developer-provided amenities and acquisitions of property; "fast track" permitting; and/or the subsidization or provision of infrastructure for the developer by the jurisdiction.

Source: "Inclusionary Zoning: A Viable Solution to the Affordable Housing Crisis?", Dr. Robert W. Burchell and Catherine C. Galley, The Center for Housing Policy, 2000.

Corner stores and restaurants on this street intersection fulfill an array of daily needs for residents.

A range of housing options should be available for residents of all backgrounds.

setbacks, and parking requirements. Other methods include: establishing partnerships with non-profit and private entities to facilitate the development of attainable workforce housing, modifying regulations to increase the supply and quality of attainable housing, and establishing an inclusionary zoning policy.

Encourage mixed commerce so that residents at all income levels can fulfill their daily needs within reasonable proximity of their home.
A range of goods and services should be provided in Downtown to cater to all economic levels and support the daily needs of residents. It is important that downtown have more than just expensive restaurants and discount outlets, but grocery stores, pharmacies, laundromats, dry-cleaners, coffee shops and day care centers as well. The variety of sizes, ages and conditions of Downtown properties should support this essential network of mixed commerce, allowing business owners to offer their goods and services for the convenience of residents and workers. The City should support small and local businesses by reducing or waiving parking requirements or by creating a shared parking system, and developing a reliable transit system. Another action that must be taken by the city to increase attainable commerce Downtown is to provide public investment to create appealing environments that are mixed-use, walkable, and integrated with green space, in order to support and ignite vibrant private investment. Done well, this will serve as a magnet to aggregate employment into dense centers within walking distance of daily amenities.

Provide opportunity for those of all backgrounds.
A variety of employment and training programs should be created to provide opportunity for those of all social and economic backgrounds. One of the first steps towards social and economic advancement is the continued improvement of the Richmond public school system, which will allow students of all backgrounds to have equal access to quality education. Other possibilities include job training programs, adult education, and high-school and college internships with local businesses. VCU has excellent sources of technical assistance and training for Downtown residents, and they should be a model for the local non-profit organizations, and professional associations. This would support a dynamic social interchange that benefits less-privileged residents, local businesses, and the overall economic vibrancy of Richmond.

Another important element for economic growth and stability is the presence of a creative class and a significant senior population Downtown. The creative class, as defined and described by sociologist Richard Florida, is made up of artists, writers, scientists, professors, and entrepreneurs, whose professions are based on creativity and innovation. These qualities, in turn, generate economic growth, benefiting local and global wealth. According to Florida, the creative class is attracted to vibrant environments that feature talent, technology, and tolerance. They are particularly interested in authentic places that are evolving and adaptable, and places with urban amenities. Senior citizens are a demographic group that also contribute to the economy of Downtown. These can include younger retirees and elderly people living in assisted living facilities. These groups contribute to Downtown by supporting cultural institutions, entertainment venues and restaurants, and by providing significant service as volunteers and community activists. Senior citizens are attracted to universities, walkable environments, access to health care, and a vibrant cultural scene. Richmond is already considered to be a draw for these groups, as it is considered to be one of the top ten cities in the South for the Creative Class , and, according to the US Census Bureau, around 18% of its Downtown population are senior citizens. It is important, however, that the City works to retain and increase opportunities for these populations.

Another population group that Richmond should actively recruit includes new families arriving in this country. While Richmond's population today includes people from many cultures all around the world, the city still has limited population diversity, consisting primarily of native-born Caucasians and African-Americans. The introduction of new population groups would add social and economic diversity to Downtown and leverage Downtown's strengths. According to author and former Milwaukee Mayor John Norquist, immigration has always been a source of strength for cities; immigrants work hard and bring new energy, customs, ideas, and products . He cites New York as a clear success story of immigration. New York's immigrants brought a variety of talents and cultures and a rigorous work ethic that made the city successful and enduring. Recently, Mayor Rudy Giuliani has asserted that immigrants have been "the key to New York's success." Richmond can attract immigrants and other new residents through a combination of affordable housing, mixed commerce, and diverse employment opportunities.

Downtown should be inviting to those of all backgrounds.

getting there 4

The Illustrative Plan for Downtown Richmond is a synthesis of distinct districts, corridors, and neighborhoods, each with their own unique attributes and special characteristics. For the purposes of this plan, the Downtown study area was organized into six focus areas. As described in Chapter 1, these areas include:

- Broad Street and Jackson Ward;
- VCU and Downtown Neighborhoods;
- City Center;
- Manchester;
- James River; and,
- Shockoe.

Each area combines to form a cohesive vision that will guide the complete growth and development of Downtown for generations to come. This chapter includes specific design details and plan recommendations for each of the six areas of Downtown.

Downtown Aerial, 2006

Existing Conditions

Illustrative Plan

BROAD STREET & JACKSON WARD

BROAD STREET

Broad Street is Richmond's historic retail street and the corridor has served as a shopping destination throughout much of the city's development. This commerce was supported by a vibrant residential population in Downtown Richmond and by the frequent visitors who passed through the city by way of Broad Street. Prior to the interstate, the street was a major regional thoroughfare. The street was served by a healthy transit system that ran in the right-of-way, ranging from the trains of the Richmond, Fredericksburg and Potomac Railroad which operated along Broad Street until the late 1800s, to the streetcars that defined Broad Street between the 1870s and the 1940s. This high level of consumer and transit support created an ideal market for Downtown shopping that eventually evolved into a golden era of large-scale, high-end department stores, including Miller & Rhoads and Thalhimer's.

Although its urban fabric remains ideally suited for a vibrant mixed-use district, Broad Street today experiences vacancies and blight in certain blocks. Despite this, Broad Street retains the walkable, pedestrian-friendly urban fabric that once supported thriving commerce. The majority of the historic storefronts and elegant office and apartment buildings remain intact. Much of the retail and commercial activity of the street has moved westward along the corridor into the suburbs due in large part to prevalent use of the automobile.

Rather than serving as a destination, this boulevard is today used as a vehicular corridor to get into and out of Downtown. Whereas this grand boulevard was once multi-modal, serving the needs of pedestrians, transit riders and vehicles, today it is dominated by automobiles and scheduled bus service. The street has retained a generous width that can support a return to a healthy mix of pedestrian, automobile, and transit connectivity. Due to its inherent physical characteristics, the City of Richmond, Virginia Commonwealth University, imaginative investors, and committed residents have joined together and successfully revitalized distinct sections of the corridor. Through preservation incentives found within state and federal historic districts and efforts of privately-initiated Business Associations, neighborhood groups, and visionary investors, there are portions of Broad Street which have been recently enlivened with unique restaurants, rehabilitated loft spaces, artist studios, and creative small businesses. The First Fridays Artwalk has brought locally-grown art and culture to the area and has been the core of a Downtown-wide arts program. These pockets of revitalization along Broad Street are examples of a creative class that is bringing a vibrant arts element to Downtown. This creative class and its efforts along Broad Street should be encouraged as Broad Street develops. The characteristics of the creative class and the benefits that it brings to Downtown is discussed in more detail in Chapter Three.

During the charrette, a strong desire was expressed to see Broad Street return to its heyday as the retail and commercial heart of the Richmond region. The hope is that Broad Street's historic storefronts will be filled once again with merchandise, and its sidewalks packed with pedestrians, diners and shoppers. In order to achieve this vision, a combination of physical, economic and social measures must be taken to support a thriving retail district. These measures are explained on page 4.7.

JACKSON WARD

Jackson Ward has a distinguished history as a thriving African American neighborhood. In its golden years at the turn of the 20th century, the district was one of the nation's most successful black commercial and cultural centers, and was dubbed "The Harlem of the South." The neighborhood hosted a vibrant mix of residential, commercial, and cultural establishments and operated as a complete community within greater Downtown Richmond.

Although Jackson Ward has suffered from a loss of population and economic decline in recent decades, it retains the fine-grained urban fabric of streets and blocks that once supported a vibrant mix of shops, housing, offices, churches, theatres and parks, all of which could be easily and comfortably reached by foot or transit. Even more, much of the district's fine Italianate historic architecture remains intact, lending an attractive and comfortable human scale to the neighborhood. Most of the neighborhood is listed on the National Register of Historic Places and is one of the City's Old and Historic Districts. The neighborhood has been the subject of a City sponsored revitalization program, Neighborhoods in Bloom, which included incentives for the rehabilitation of historic properties. A significant amount of historic rehabilitation has taken place in the neighborhood, which has provided a range of housing opportunities, from single-family homes to apartment buildings.

Despite these positive changes, Jackson Ward has not yet achieved a return to the vibrancy of its past. Many buildings remain empty, and few retail and commercial establishments have returned to the district. The theatres that once attracted entertainers and audiences from around the country are closed. The adjacent Convention Center, which was intended to bring new life to the Ward, has instead overwhelmed its small scale and created a barrier between the Ward and City Center. The neighborhood's economic decline has resulted in a lack of maintenance and care for its sidewalks and streets, some of which are still in need of streetscape and paving improvements.

During the charrette, a desire was expressed to see Jackson Ward recapture the vibrancy of its golden years, while maintaining its unique character. Some of the key desires of residents included the rehabilitation and construction of quality housing and the return of neighborhood-supported retail and services. Another desire was the revival of Jackson Ward as an entertainment district, and the celebration of its cultural legacy.

A number of buildings have been restored along Broad Street and local businesses are returning to its storefronts, due to historic rehabilitation tax credits.

Jackson Ward has elegant architecture and traditional urbanism to support the rebirth of a vibrant neighborhood.

General Recommendations

- (A) Green space / new parks serving the surrounding businesses and residences
- (B) Parking garages with liner buildings
- (C) Parking is located in the rear of lots and buildings face the street
- (D) Street trees create desirable addresses and enhance the pedestrian environment
- (E) Revitalize 2nd Street as a great Downtown Main Street
- (F) Streetscape improvements and signage help to celebrate and showcase history
- (G) Opportunities to better connect Broad Street and Jackson Ward to the Convention Center
- (H) Bring back transit
- (I) On-street parking
- (J) Compatible infill
- (K) Brand-able corners, gateways, key locations

Plant and maintain proper urban street trees to create desirable addresses and enhance the pedestrian environment.
It is essential that trees are planted along all primary Downtown streets in order to create walkable districts. Trees should be native species that are drought and pollution-tolerant and that provide a sufficient shade canopy that is high enough to leave the pedestrian and vehicle realm clear. They should not have fruit or seeds that will drop and litter or stain the sidewalk. Trees should be selected based on their life-span and size, so that they do not outgrow their surroundings. Trees should be planted at the back of curb on the sidewalk in order to provide shade for pedestrians and a sense of enclosure for drivers. Street trees should be consistently planted along Belvidere Street, Broad Street, 2nd Street, and Chamberlayne Parkway in order to emphasize their role as primary Downtown thoroughfares and neighborhood destinations. Street trees will assist in way-finding, will help to increase property values, and will create an enjoyable pedestrian environment. They will also serve to establish a sense of place in Jackson Ward's residential district.

Improve the physical design of Broad Street
In order to support a vibrant, pedestrian-oriented shopping district, Broad Street must be altered from its current automobile-centric layout and redesigned to accommodate pedestrian movement and transit. The Downtown Plan proposes a street section for Broad Street that maintains certain elements and revises others; including wide sidewalks for pedestrians, on-street parallel parking, two traffic lanes, and dedicated transit lanes in the center of the roadway. The dedicated transit lanes would accommodate Bus Rapid Transit in the near-term and streetcar lines in the long-term. See page 5.10 in the Transportation Chapter.

Another important physical change that will support a vibrant pedestrian-oriented district is streetscape improvements. A proper urban streetscape can help to increase pedestrian safety, comfort, and interest. These can be done as follows:

Pedestrian safety is ensured by providing parallel parking along the sidewalk, therefore creating a physical buffer between pedestrians and moving vehicles. Safety is also enhanced by providing attractive, appropriately-scaled lighting for the sidewalk realm.

Pedestrian comfort is created by providing wide sidewalks and protection from the elements. A canopy of shade trees or a system of awnings and arcades provide shade on hot, sunny days, and shelter on rainy days. Street furniture such as benches and planters provides an opportunity for tired pedestrians to rest or wait. Frequently placed and maintained trashcans help pedestrians to keep the street clean.

Pedestrian interest is held by requiring all buildings to front the sidewalk with a human-scaled, public façade. An active, street-level frontage, such as retail, should be encouraged, with large display windows attracting pedestrians to the district. It is imperative that off-street parking, whether parking lots or structured parking garages, be placed at the center of the block and lined with habitable buildings. All new construction and liner buildings should relate to the historic buildings along Broad Street. New buildings should respect the height and scale of historic buildings and respond to their level of architectural detail, in particular their pattern of window and door openings.

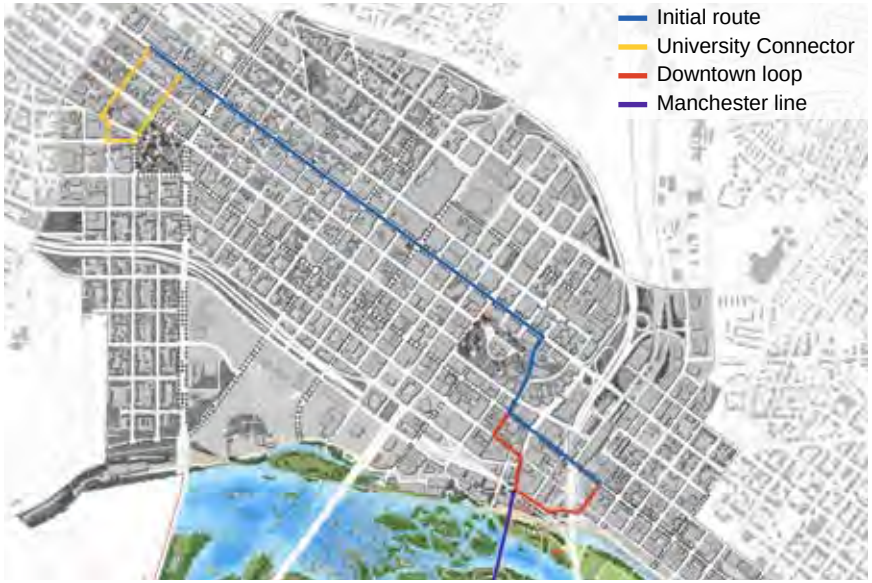
The historic architecture in Jackson Ward creates an engaging public realm.

Provide for a mix of uses along Broad Street
As Broad Street redevelops and new businesses begin to fill its storefronts and office space, it is important that a careful mix of neighborhood convenience and other retail/service is accommodated in the district. Buildings should be mixed-use, with retail on the ground floor and residences or offices above. This will allow Downtown residents to live comfortably and accomplish errands close to home, while regional shoppers will support destination boutiques and unique restaurants. A healthy mix of businesses is being encouraged through the recently formed Broad Street Corridor Coalition.

Support and encourage residential development on Broad Street
In order for Broad Street's retail rebirth to be successful, it must be supported by a large Downtown residential population. The emerging trend of downtown apartment buildings, rowhouses, and lofts should continue to be supported. Incentives should be provided to renovate and redevelop the historic buildings along Broad Street as a balanced mix of retail, office, and housing. Such incentives to encourage development include micro loans and grants, a reduction in permit fees, tax reliefs, a decrease in parking requirements, increased density, and public infrastructure improvements. It is essential that Downtown residents be able to shop along Broad Street without needing a car; therefore transit and streetscape improvements go hand-in-hand with residential development in the Downtown.

Bring back the trolley
Broad Street was once a primary corridor in Richmond's comprehensive streetcar system. The shops, apartments, offices and civic buildings that grew up along Broad Street developed in relation to the streetcar. The revitalization of Broad Street will bring even greater vibrancy and traffic to this section of Downtown. As such, a streetcar should be reintroduced to Broad Street. The streetcar on Broad Street would provide a much-needed connection between Shockoe, the Capitol District, the Convention Center, and Jackson Ward. This would serve visitors, workers, and residents alike, and reduce the dependence for automobiles in Downtown. In the near-term, the introduction of Bus Rapid Transit (BRT) along Broad Street would improve connectivity from Downtown to areas beyond, reduce the number of bus stops along the corridor, provide faster service, and improve facilities for transit riders. Technical information about the logistics and funding of BRT and the streetcar can be found in Chapter 5 – Transportation Analysis.

Create memorable corners, gateways, and meeting places
In order to promote Broad Street as a local and regional destination, it is essential that its history and cultural institutions be promoted and that a system of gateways and memorable intersections are created along the street. Broad Street's long history as a regional corridor and a shopping destination can be interpreted and shared through historic markers, signs, and unique street furniture. Its distinguished cultural institutions such as the Empire Theatre can be enhanced, and continue to contribute to a growing cultural dynamic in the district. A system of gateways and memorable intersections could signal ones arrival into this unique district and help to define an identity for the area. These could also assist in way-finding and serve as meeting places. It is essential that clear connections be made between Broad Street and its neighbors, particularly Jackson Ward, the Convention Center, and City Center.

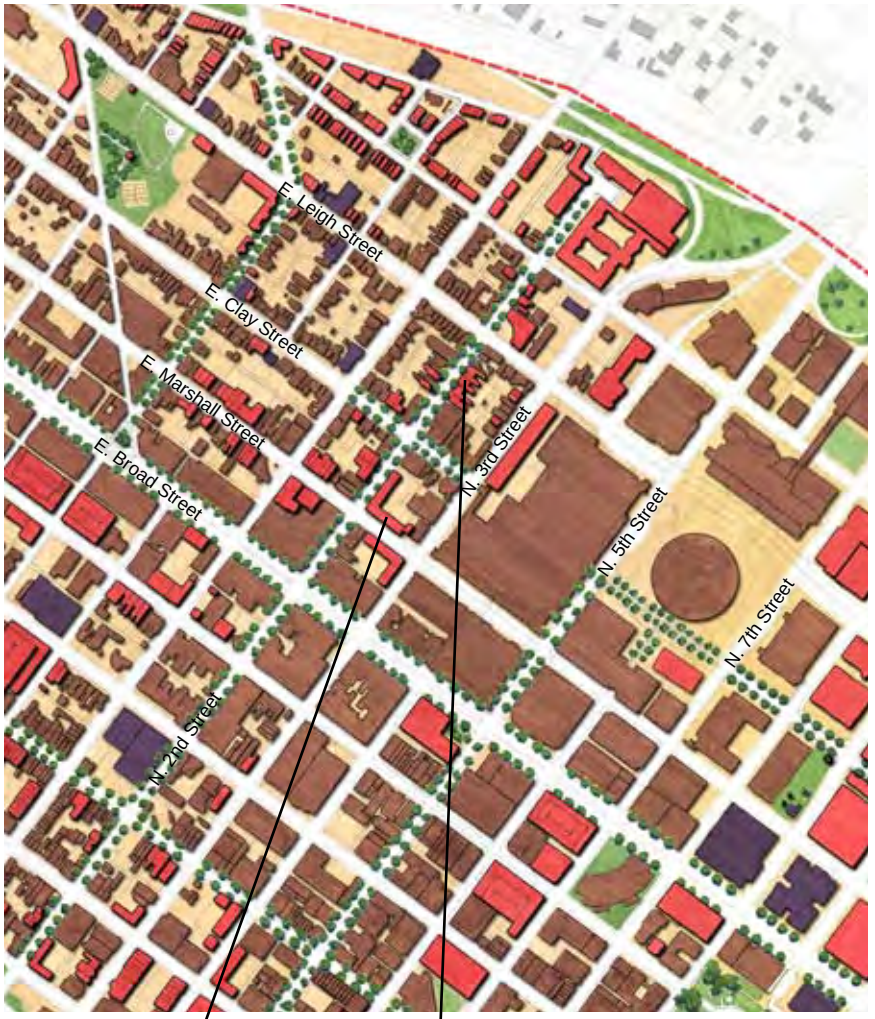


A streetcar line should be brought back to Broad Street, connecting VCU and the Downtown Neighborhoods to City Center and Shockoe.

Create new parks along Broad Street
A series of small parks or plazas should be introduced along Broad Street in existing vacant spaces in order to serve the growing residential, office, and shopping district. These parks should be distributed at 5-minute walking intervals (approximately 4 to 5 blocks apart) along the length of the street in order to provide convenient access to public space for workers and residents in the area. The parks should be fronted with retail space and residences in order to ensure maximum use and to provide an added level of security by instilling "eyes on the park".

Create an appropriate transition between the Convention Center and Jackson Ward
The Convention Center currently turns its back on Jackson Ward by fronting North 3rd Street with blank walls, service uses, and a building that is out of scale and character with the architecture of Jackson Ward. New infill construction along the West side of 3rd Street should be encouraged to create a transition between the Convention Center and the residential-scale buildings of Jackson Ward. This intermediate-scaled development should play off of the scale and energy of Jackson Place, which is also being planned as a bridge between the regional scale and draw of the Convention Center, and the local, residential scale of Jackson Ward.

Revitalize 2nd Street to attract visitors from the Convention Center
Jackson Ward has an opportunity to reclaim its role as a unique entertainment destination due to its proximity to the Convention Center. Visitors and guests of the Convention Center and Virginia BioTechnology Research Park are currently isolated from adjacent Jackson Ward and the surrounding Downtown due to vast expanses of parking lots and decks with no retail or other streetscape elements (such as signage or street trees) that attract and orient pedestrians. 2nd Street should be revived with restored jazz clubs and theatres such as the historic Hippodrome Theatre, and this nightlife should be supported by restaurants and cafes that front the street. Streetscape improvements such as street trees, unique lighting, and distinct paving would further support 2nd Street's revival as an entertainment destination within Downtown Richmond. Marshall Street should be developed as an attractive street that will lead visitors from the Convention Center to 2nd Street.



Increase pedestrian activity
It is essential that Jackson Ward be revitalized not only as a residential neighborhood, but as a thriving mixed-use, walkable district. This can be achieved by encouraging neighborhood supported retail, office, and cultural centers in the district. The existing one-way streets in Jackson Ward should be returned to two-way traffic. Streetscape improvements that support pedestrian connections through the district, such as on-street parking, shade trees, colonnades, and wide sidewalks, will support a vibrant mixed-use district.

Use historic preservation and compatible infill to increase the residential population in Jackson Ward
An already strengthening residential population in Jackson Ward should continue to be encouraged. This can be achieved by creating additional incentives for the historic rehabilitation of houses, apartment buildings and old warehouses. Such incentives to encourage development include micro loans and grants, a reduction in permit fees, tax reliefs, a decrease in parking requirements, increased density, and public infrastructure improvements. New housing construction in the district should be reviewed to ensure that it is compatible in scale and character with the existing neighborhood fabric, and that it supports a pedestrian-oriented streetscape.

Celebrate and showcase history with streetscape improvements and signage
It is recommended that the historic African American flavor of Jackson Ward be maintained and celebrated. This can be achieved through signage highlighting historic African American achievements that took place in Jackson Ward, as well as with monuments to important figures in Jackson Ward's development. Events such as the 2nd Street Festival should be expanded throughout the year. Local businesses and entrepreneurs should be assisted and encouraged to remain in the area in order to maintain Jackson Ward's unique character in the future. Establishing the Jackson Ward Trail, running between the Convention Center and the Maggie L. Walker National Historic Site, could also be a great opportunity to showcase the history of the community.

Improve Abner Clay Park for the residents of Jackson Ward
Abner Clay Park, named for one of Jackson Ward's civic leaders, is one of Downtown Richmond's few locations for active, organized recreation. With tennis and basketball courts, a baseball diamond, rugby field, picnic shelter and "tot lot," this park is often used for community gatherings. The park can be improved by adding additional shade trees within the park and along its perimeter. The addition of street trees and perimeter plantings will help to enclose the park, making it feel safer, more inviting, and provide relief from the summer heat.

Redevelop Gilpin Court
Gilpin Court is a large-scale public housing project located north of Jackson Ward and Interstate 64. Spanning 50 acres, Gilpin Court currently contains 768 public housing units. Gilpin Court should be redeveloped into a mixed-use, mixed-income neighborhood. The area should be transformed from a housing "project"– a standalone collection of low-income households– to a mixed-income neighborhood attractive to both owner and renter occupants. The area should be redeveloped and redesigned as a traditional neighborhood, with a variety of building types fronting streets and greens and an interconnected street network. The Richmond Redevelopment and Housing Authority should continue its planning efforts to transform this area.

Marshall Street Improvements

Marshall Street – Existing Conditions
The existing conditions of Marshall Street do little to attract visitors from the nearby Convention Center. Overhead utilities clutter the air and the one-way traffic pattern prevents drivers from stopping through on their way out of city center. A number of properties are vacant or are used as surface parking lots, and existing buildings turn blank walls to the street, deterring pedestrians.

Step 1 – Burying Utilities
A first step in improving the image of Marshall Street is to bury the overhead utility lines and to remove the existing “cobra-head” light poles that make the street feel as if it were a highway.

Step 2 – Public Works Improvements
Distinctive streetscape improvements such as street trees, pedestrian-scaled lighting, special sidewalk pavers, and well-defined crosswalks increase pedestrian comfort. A new two-way traffic pattern allows visitors to approach Marshall Street from all directions, improving accessibility to restaurants and retail.

Step 3 – Early Private Investment
An enhanced public realm provides incentive for private development. New development follows the scale and character of the existing neighborhood. Existing buildings are oriented toward Marshall Street, restaurant entrances and large windows are opened towards the street, and awnings are added to attract customers. On-street parking serves restaurants and shops, and creates a protective buffer for pedestrians.

Step 4 – Destination District
A successful combination of public and private investment will transform Marshall Street into a destination. Note the close proximity of the Convention Center 2 blocks away with the sky-walk crossing Marshall Street. The textured surface of cobblestones will lend a unique character to the district and will slow traffic, further improving its pedestrian quality.

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VIRGINIA COMMONWEALTH UNIVERSITY & DOWNTOWN NEIGHBORHOODS

Virginia Commonwealth University's (VCU) Monroe Park Campus and the adjacent neighborhoods of Monroe Ward and Oregon Hill make up the westernmost portion of Downtown. The area contains a vibrant mix of institutional, residential, retail and office uses. VCU's Monroe Park Campus is centered around historic Monroe Park, and features an urban campus that has both renovated historic buildings and larger, modern facilities along Broad Street and Belvidere Street. The university adds great economic and social activity Downtown, and it is important that its future expansion and impact on the adjacent residential neighborhoods include appropriately designed buildings that complement the historic context.

The Monroe Park Campus' neighbor to the east, Monroe Ward, is a truly mixed-use neighborhood. Monroe Ward contains a variety of residential densities, historic buildings, civic institutions, and office and commercial uses. Magnificent historic properties with front yards, gardens and wrought iron fences line the streets of Monroe Ward, especially along Franklin Street. Over the past several years, many of the historic homes and mansions have been restored and reused as restaurants, shops and apartments. It is important that this trend continue for the vitality and safety of the neighborhood. For the first time, VCU has expanded east across Belvidere Street into the neighborhood with its Business and Engineering Schools, the Brand center, a parking garage and a housing complex with ground floor retail.

Oregon Hill is a unique residential neighborhood to the south of the Monroe Park Campus. It is characterized by historic wood-frame, single family homes and is surrounded on three sides by parks. The neighborhood features dramatic views to the James River. The neighborhood greatly contributes to the character of Downtown and local preservation tools should be strongly encouraged to ensure preservation. This would include designation as a local Old and Historic District or design overlay district. Oregon Hill residents have had a strong voice in VCU development as it has affected the neighborhood. It is important that the University and the neighborhood continue to work closely together should any projects be contemplated in the future by the University.

Plant and maintain proper urban street trees to create desirable addresses and enhance the pedestrian environment

It is essential that trees are planted along all primary Downtown streets in order to create walkable districts. Trees should be native species that are drought and pollution-tolerant and that provide a sufficient shade canopy that is high enough to leave the pedestrian and vehicle realm clear. They should not have fruit or seeds that will drop and litter or stain the sidewalk. Trees should be selected based on their life-span and size, so that they do not outgrow their surroundings. Trees should be planted at the back of curb on the sidewalk in order to provide shade for pedestrians and a sense of enclosure for drivers. Street trees should be consistently planted along Belvidere Street, Broad Street, Main Street, 2nd Street, and along the streets bordering Monroe Park in order to emphasize their role as primary Downtown thoroughfares. Street trees will assist in way-finding, will help to increase property values, and will create an enjoyable pedestrian environment.

Virginia Commonwealth University has a significant presence in Downtown. The pedestrian character, college atmosphere, and security of the campus should be protected.

VCU and Monroe Ward

Oregon Hill and Gamble's Hill

General Recommendations

(A) Parking garage to provide needed parking, lined with habitable spaces to create a pedestrian-friendly street frontage

(B) Street trees to create desirable addresses and enhance the pedestrian environment

(C) Infill buildings that create a continuous street frontage and respect the character of the neighborhood with similar massing and architectural elements

(D) New connections between parks along S. Belvidere Street

(E) VCU Monroe Park Campus infill

(F) Neighborhood preservation efforts continued

(G) All four corners of intersections fronted with street-oriented buildings

Increase transit opportunities
Improved bus connections and the introduction of the streetcar on Broad Street will help to better connect the Monroe Park Campus and the western Downtown neighborhoods to City Center, Manchester and Shockoe. This will reduce the need for parking on the Monroe Park Campus and in the residential neighborhoods, and will support an active pedestrian environment. VCU should continue to provide alternatives to automobile use on its urban campus. This will reduce the need for new parking decks and will encourage walking.

Encourage VCU campus infill
The VCU 2020 Master Plan outlines the future growth and development of the Monroe Park Campus. The goals of this plan were incorporated into the Downtown Plan. VCU should focus on infill opportunities in the core of its campus, where vacant property exists. The continued development of parking garages would alleviate parking conflicts between students and residents. These garages should be located mid-block and be lined by habitable buildings so that the continuity of the street is maintained. A gateway, defined by street-oriented buildings, should be created at the intersection of Belvidere and Broad Streets in order to signal an entrance to the University and establish a sense of place for the campus. It is important that VCU continue its communications and early coordination with the City of Richmond and its adjacent Downtown neighbors, in order to better integrate the Monroe Park Campus into the Downtown urban fabric. One important step that the University could consider is to include a neighborhood representative on its Architectural Review Committee in addition to the role neighborhoods play in its Community Advisory Board. This would provide a clearer means of communication amongst all parties.

Essential role of urban streets as public spaces
Streets play an essential role in the healthy operation of cities. They are a city's circulation system and its public spaces. Streets permit access to light and fresh air, provide a location for social interaction, and straight streets such as Richmond's allow views through the city. Street closures and development that take up more than one city block (also known as "superblock" development) restrict public access and connectivity. Given the importance of the street grid to Richmond's urban environment, every effort should be made to preserve the grid, including alleys, as the City develops further. Closure or sale of the City's streets and alleys should only be allowed if the development type requires such.

Promote Monroe Park as the center of a campus and a community
With the growth of the Monroe Park Campus that surrounds the park on four sides, Monroe Park is becoming more important to the University as its primary green space, and as such has been endorsed as a central feature within the campus by the VCU 2020 Master Plan. The City and the Monroe Park Advisory Council have developed the 2008 Monroe Park Master Plan that will guide future enhanced use of the park as a cultural and passive recreational center for the campus and the neighborhood. This park plan has been reflected in the illustrations in the Downtown Plan. Respect for the park's historic integrity and increased maintenance and security are key to the park's success.

Establish a Sustainable Community Design Center
It is recommended that Virginia Commonwealth University establish a Sustainable Community Design Center (SCDC) that would serve the residents and communities of the Richmond region. The SCDC should consist of VCU faculty, staff, and students who, together, assist and empower community members and organizations to solve problems by equally blending teaching, learning and scholarship to realize more just, equitable and sustainable communities in the Richmond area. The mission and function of the SCDC should be the promotion and implementation of sustainable community planning, design and development.

Continue neighborhood preservation efforts in Oregon Hill
It is important that the historic, residential character of Oregon Hill be preserved. This can be encouraged through the creation of a local Old and Historic District or design overlay district and through continued dialogue between the University and Oregon Hill residents.

Preservation efforts in Oregon Hill should focus on the rehabilitation of blighted and vacant buildings. These buildings can be located through the vacant building survey. This type of rehabilitation has been success-

fully achieved through spot blight at the corner of Second Street and Broad Street. Vacant lots should be developed as low-density buildings, predominately reserved for residential uses, that respect the scale and character of the existing neighborhood. A corner store within the neighborhood should be pursued to provide for closer neighborhood services and to create a neighborhood center. South Pine Street should be reconnected over the Downtown Expressway to provide a pedestrian and vehicular connection from the north quadrant of Oregon Hill to the southern end.

Preserve and connect Oregon Hill's parks

Oregon Hill is surrounded by parks on three sides, one of which is a nearly continuous linear park that buffers the neighborhood from the noise and traffic of Belvidere Street. This linear park should become continuous. It is important that new development does not encroach on the existing green buffer. Views to the river should be preserved through compliance with the development rights previously approved for properties on the south side of Oregon Hill Parkway and by ensuring that new development on the north side of the Parkway is of the same scale and character as the rest of Oregon Hill.

Oregon Hill is a historic, working-class neighborhood that features wood-constructed rowhouses and single-family homes, and abundant shade trees.

Continue to encourage compatible infill in Monroe Ward

Monroe Ward has a high proportion of vacant lots and surface parking lots. These vacant properties should be the highest priority for Downtown infill development. All new development should respect the existing mix of uses, and include office buildings, residential apartment buildings, and retail. Buildings should respect the scale and character of the existing block – for example, the vacant lots on the block bound by South 1st Street and Foushee Street and Cary Street and Main Street should be developed as small-scale buildings. The southwestern area of the district, in contrast, is characterized by larger institutional buildings and new development in this area should be compatible with these larger buildings. Parking in Monroe Ward can be accommodated in mid-block surface parking lots, in mid-block parking garages lined with habitable buildings, and in underground parking garages. It is important that the historic character of Monroe Ward be preserved. This can be encouraged through the creation of a local Old and Historic District or design overlay district.

Revitalize Grace Street

Grace Street should be revitalized as a center of commerce and as an important approach to the State Capitol. The restoration of Grace Street from one-way traffic to two-way traffic will reduce vehicle speeds, improve access to businesses and nearby properties, and will enhance the pedestrian environment. In addition, this will provide a clear view to Capitol Square for drivers. The vacant lots along Grace Street should be developed with compatible urban architecture that defines the street and engages the pedestrian. Mid-block parking garages with liner buildings, and underground parking garages, will address the parking demand along both Broad and Grace Streets. Grace Street's historic shopfronts should be restored and revitalized, and residential and office uses should be re-introduced to the street to complement the revitalization along Broad Street. In addition more residential and office development are critical to the success of this retail.

CITY CENTER

The City Center District is located within the core of Richmond. It is comprised of the region's most important offices and work-places, VCU's Medical College of Virginia (MCV) Campus, the Virginia BioTechnology Research Park, Richmond Coliseum, Greater Richmond Convention Center, City Hall, Capitol Square, government and institutional buildings, and the financial district. The City Center is the heart of Downtown Richmond, serving as the nucleus of commerce, government, and economic prosperity. While the area is home to many established institutions and government facilities, the urban form has been disrupted with large-scale development, parking lots and garages. Several office buildings have no relationship to the pedestrian (i.e. lack of retail services and blank walls facing streets) and are instead auto-oriented (i.e. garage entrances and loading docks facing streets). The system of one-way streets and high speed traffic make the area difficult for motorists and pedestrians to navigate. The vacant storefronts along Broad Street indicate the need for a broader range of uses in the area. Residential uses are infrequent, making the City Center a place of 9am to 5pm activity.

While the uses within Downtown buildings thrive, leaders in the City and Commonwealth have realized in recent years the impact the decline of the outdoor urban environment has on quality of life, visitor perceptions of the city, and the economic vitality of the Downtown as a whole. Recent redevelopment and revitalization efforts have helped to spark a returned interest in transforming the City Center into a 24-hour mixed-use community. The Miller and Rhoads flagship store on Broad Street is currently being renovated and transformed into residences and a hotel. The Richmond Center Stage is expanding and the preservation of the Carpenter Theatre is currently underway. The opening of the new Visitor Center at Capitol Square is encouraging more people to visit Downtown Richmond. The plan for the City Center seeks to build upon this momentum and encourage more residents, visitors, and businesses to return to the area.

With the completion of the State Capitol visitors center, renewed efforts should be made to increase access to the Capitol from Downtown.

Several properties define Canal Street with blank walls, exposed parking garages, and parking lots, creating an unfavorable and uncomfortable streetscape.

General Recommendations

- (A) Street trees to create desirable addresses and enhance the pedestrian environment
- (B) Parking garage to provide needed parking, lined with habitable spaces to create a pedestrian-friendly street frontage
- (C) Infill buildings that create a continuous street frontage and respect the character of the neighborhood with similar massing and architectural elements
- (D) 2nd Street revitalized to be a great Downtown Main Street
- (E) Encourage pedestrian usage of streets
- (F) Signature gateway building
- (G) Buildings along Canal Walk
- (H) James River outlook
- (I) Riverfront Park
- (J) Conduct feasibility study for two blocks around Coliseum
- (K) New General Assembly building, built as soon as possible; gravel parking lot must not become permanent
- (L) Cathedral Walk
- (M) New gateway building to the VCU Medical Center
- (N) Historic farmers' market restored
- (O) Explore all options for the future of West Hospital
- (P) Improve Kanawha Plaza and enhance the park
- (Q) Buildings oriented to the street; parking in the middle of the block

Plant and maintain proper urban street trees to create desirable addresses and enhance the pedestrian environment
It is essential that trees are planted along all primary Downtown streets in order to create walkable districts. Trees should be native species that are drought and pollution-tolerant and that provide a sufficient shade canopy that is high enough to leave the pedestrian and vehicle realm clear. They should not have fruit or seeds that will drop and litter or stain the sidewalk. Trees should be selected based on their life-span and size, so that they do not outgrow their surroundings. Trees should be planted at the back of curb on the sidewalk in order to provide shade for pedestrians and a sense of enclosure for drivers. Street trees should be consistently planted along Broad Street, Main Street, 2nd Street, 5th Street, and 10th Street in order to emphasize their role as primary Downtown thoroughfares. Street trees will assist in way-finding, will help to increase property values, and will create an enjoyable pedestrian environment.

Essential role of urban streets as public spaces
Streets play an essential role in the healthy operation of cities. They are a city's circulation system and its public spaces. Streets permit access to light and fresh air, provide a location for social interaction, and straight streets such as Richmond's allow views through the city. Street closures and development that take up more than one city block (also known as "superblock" development) restrict public access and connectivity. Given the importance of the street grid to Richmond's urban environment, the grid (including alleys) should be preserved, and wherever possible, reinstated, as the City develops further.

Require ground floor retail in the City Center in key locations
Frequent storefront uses on the ground floor should be a staple of City Center development. Despite the large supply of retail space in Downtown as a whole and further down Broad Street, City Center's own retail offerings are spotty and fragmented, giving rise to a situation in which the part of town with the largest daytime worker population has relatively limited convenient shopping opportunities. It is essential that new construction along Broad Street includes near-continuous ground floor retail in order to encourage a walkable, mixed-use environment. Other key locations, including many street corners within the City Center, should be outfitted with storefront uses as well. This retail space can include a variety of restaurants, convenience stores, shops, and everyday services (like dry-cleaners, drug stores, delis, or shoe repair shops) to support the thousands of workers in the Downtown and to encourage employees to leave their offices and their cars during breaks and explore Downtown by foot. The storefronts can include high-end specialty shops and national retailers, but should also include enough "affordable commerce" to nurture service businesses and local entrepreneurs. This will improve convenience, sales tax revenues, the business startup prospects, and street life and decrease traffic congestion.

Improve façades in the City Center
Currently, many of the storefronts in the City Center, particularly along Broad Street and many of the other retail corridors, have been altered beyond recognition over the years. Historic structures should be restored, and the layers of signage and false façades should be removed to reveal the historic details beneath. When historic buildings are reoccupied or retrofitted for new uses, the altered façades should be restored to their original architectural design. Where historic features have been removed completely, they should be recreated to be in keeping with the architectural character of the building. New construction should respect the historic façades that still exist in City Center, and should carry the same levels of detail and quality as the historic architecture in Downtown. Several buildings along Broad Street have been restored with the use of historic tax credits and this work should be continued. The City should offer design review assistance to provide consistency in the overall improvements of façades Downtown. City staff experienced in historic preservation should discuss and guide applicants on the proper restoration of façades. The City should continue its strict code enforcement and application of the Spot Blight Abatement Program.

Create usable open space in front of the Federal Courthouse
As Broad Street once again becomes the major spine for retail and transit through the Downtown, incorporating successful open space into the street's fabric will be necessary. The new Federal Courthouse provides just such an opportunity to create a highly visible, attractive civic space. This urban plaza should be detailed with shade trees and appropriate plaza furniture, such as benches, low planters for seating, and perhaps a small kiosk for coffee or newspapers that would add life to the plaza.

Integrate the VCU Medical Center into Downtown's urban fabric
Virginia Commonwealth University's MCV Campus is an internationally recognized medical research hospital located in the center of Downtown Richmond. Centered along the eastern end of Broad Street, the campus is organized as a series of large super-blocks with mid-rise buildings flanking Downtown streets. Parking garages are located adjacent to buildings and along the interstate. The campus has a high volume of pedestrian traffic and automobile traffic is somewhat limited due to street closures.

The Downtown Plan respects VCU 2020, VCU's Master Plan completed in 2004, and recommends consideration of certain revisions to ensure the integrity of the urban environment. The MCV Campus is a special community within downtown, serving thousands of employees, visitors and students everyday. Incorporating complementary development in addition to medical facilities will help to serve the needs of the campus community. Continued expansion of multiple uses, such as the restaurants and retail establishments that already exist, will improve walkability and offer more choices within the district. Streetscape programs should continue to better connect the campus. New and existing parking garages should be lined with habitable space. Public plazas and open spaces should continue to be included as development continues, and pedestrian linkages to the State Capitol, Court End, and surrounding areas should be increased. Multi-modal transportation opportunities should continue to be explored as a mechanism to increase connections along Broad Street to and from the MCV Campus and Monroe Park Campus.

There is an opportunity for a gateway building to the MCV Campus on Broad Street between 10th and 11th Streets. This structure could provide a front door to the campus right across the street from Capitol Square. Regardless of what is built above, underground parking should be built and active commercial uses (i.e. retail) should be incorporated on the first floor to enliven the street.

Virginia Commonwealth University's MCV campus has expanded in recent years, and boasts a variety of architectural styles.

The West Hospital is owned by VCU and is planned for demolition in order to build a new School of Medicine. The University, Commonwealth and City, should be encouraged to work together to explore all options for the future of the West Hospital.

Continue to integrate J. Sargeant Reynolds Community College's programs and campus into Downtown

J. Sargeant Reynolds Community College (JSRCC) provides education to more than 5,000 students each year at its Downtown Campus, with more than 18,500 credit students annually attending the college at one of its three academic campuses. In addition to offering courses in business and liberal arts, the Downtown Campus houses the School of Nursing and Allied Health, School of Culinary Arts, Tourism and Hospitality, School of Mathematics and Science, Center for Health Sciences, Center for Teacher Education, Urban Teachers Institute, and the Middle College.

The Downtown Campus is housed in a high-rise structure at 7th and Jackson Streets, having moved in the fall of 1981 from leased facilities in the 100 block of East Grace Street. In 1995, a major addition to this facility was completed, adding 84,000 square feet to the existing 200,000 square foot structure. A 400-space parking deck opened on the campus in 2005.

JSRCC continues to forge relationships in the community through outreach into the business community, other higher education institutions, and the public schools. For example, more than 700 employers throughout the region look to JSRCC (and the Community College Workforce Alliance) for skill training for their employees that provides a trained workforce and helps their companies succeed. JSRCC also has a strong relationship with Virginia Commonwealth University (VCU), with more JSRCC students transferring to VCU than from any other institution in the Commonwealth.

Physical and programmatic improvements should continue to be pursued to better integrate JSRCC's Downtown Campus with the surrounding area and beyond.

JSRCC has as one of its strategic priorities to "*raise the educational aspirations of the residents of the City of Richmond*," so plans continue to expand access to the residents of the City. Unfortunately, the campus is landlocked and the college must identify ways to meet expansion needs while enhancing the collegiate image of the current facilities. JSRCC, the Commonwealth and the City should explore options to beautify the existing building and grounds. In addition, the college seeks to diversify its offerings, by adding active uses that engage students and invite the surrounding community onto campus. Expansion of the campus, either within the area or in other parts of Downtown should also be considered. Collaboration during the initial planning and design phase will augment pending development and assure the integrity of the area's urban fabric.

JSRCC should pursue opportunities to partner with nearby property owners on openspace initiatives

Collaborate with the City of Richmond on streetscape improvements along 7th and 8th Streets to connect the campus with Broad Street

Develop complementary non-academic uses at ground floor, such as shops or other active uses that engage students and add vibrancy to the area

The future of West Hospital

The West Hospital is a landmark building in the Downtown Richmond skyline. It was built in 1940 as a state of the art, 600-bed hospital. At the time that the West Hospital was built it was a source of great pride for the City of Richmond, distinguished by its art deco design and its prominent role in the Downtown skyline. Today, the hospital is in need of repair and modernization, and the University is planning to demolish the building and the adjoining A.D. Williams Building in order to build a new School of Medicine. The University, Commonwealth and City, should be encouraged to work together to explore all options for the future of West Hospital, to meet the expansion needs of the VCU Medical Center and the MCV Campus . An open process that includes City input at the earliest planning and design stages would be an important consideration for this effort.

Integrate Virginia BioTechnology Research Park into Downtown's urban fabric

The Virginia BioTechnology Research Park is a 34-acre research and laboratory campus adjacent to VCU's MCV Campus. Launched in 1994, the investment and creation of new businesses has been remarkable. The Park is home to more than 55 bioscience companies, research institutes, government laboratories, and not-for-profit organizations. More than 2,000 people are employed at the Research Park and the facilities encompass over one million square feet of developed space. However, the campus is arranged as a series of self-contained buildings with no retail or other street activities that could unite all of the buildings and businesses into a vibrant and cohesive campus. The synergy and networking capabilities of the Research Park can be realized through a commitment to creating a dynamic neighborhood. The most recent building constructed is BioTech Nine: The Philip Morris USA Center for Research and Technology. The building spans two city blocks and is the tallest and largest of the BioTech buildings. The architectural design of the building itself is impressive, and it is important to now link this facility and its 500 employees to the neighborhood through the creation of active streetfront uses such as retail and entertainment.

A commitment to creating a dynamic neighborhood will ensure that the vision for the Research Park is realized. It is envisioned that the Park will "create a nationally recognized identity for Greater Richmond as a preferred location for the biosciences industry by 2008." With increases in employment and visitors to the Park, the Park should create a strategy to provide additional everyday services. Restaurants, retail, lodging, and housing should be included as the Research Park expands. Within the Park, public open spaces should be incorporated and parking needs should be shared with surrounding users. Buildings should be located along street edges, rather than in the center of large blocks, and should have active ground floor spaces with doors and windows facing the street. Where existing buildings pull away from the street and are surrounded by large plazas, lawns, or parking lots, new buildings should be introduced to line the street and create a continuous street frontage. Increased pedestrian connections between the Research Park and Jackson Ward should also be encouraged. As nearby 2nd Street is revitalized, Research Park patrons should be targeted as future consumers and buyers.

Vacant lots in the Research Park, such as this one shown above, should be developed with mixed-use buildings that front the street and respect Richmond's traditional urbanism.

The absence of street life around the Convention Center demonstrates the affect of wide roadways, parking lots and parking lots on the pedestrian realm. This is an opportunity for infill.

Vibrancy that was once present in the area.

Reopen East Clay Street and Revive Court End

When the Virginia Capitol was moved to Richmond in 1788, a new neighborhood, known as "Court End," quickly grew to the north, home to the offices, courts, and stately homes of lawyers, judges and politicians. Court End has a high concentration of Federal-era historic buildings, homes, and museums, such as the Valentine Museum, the White House of the Confederacy, the Museum of the Confederacy, and the John Marshall House and Museum. Expansion and redevelopment by all entities in this area should complement the unique historic character of these buildings. The height and scale of buildings should be considered in relation to these historic structures. Furthermore, the closing of Clay Street has limited access to Court End. Streetscape improvements to identify the area and connect to other areas of Downtown should be continued. Pedestrian connections to and from the State Capitol should be enhanced with signage, lighting, benches, and other elements to unify the streetscape. The 900 block of Clay Street should be re-opened for pedestrian and vehicular traffic. The opening of Clay Street would provide a visual and physical connection between the Convention Center and Court End. Parking for visitors should occur at a centralized location within a five-minute walk of the area.

Integrate the Richmond Coliseum into a walkable urban fabric

The Richmond Coliseum was built in 1971 as a Downtown entertainment venue meant to bring activity to a declining urban center. While the Coliseum has brought a variety of sporting events and concerts to Downtown, it is only used at particular times of day for specific events. The building stands empty most of the time, doing little to contribute to Downtown vitality during those periods. Furthermore, the deep plazas and the super-block configuration of the building have had a negative impact on the surrounding urban fabric. The building cannot be expanded with its current configuration, leading City officials to consider building a new facility on the outskirts of Downtown. A short-term solution for the Coliseum is to fill in vacant lots between the Armory and Clay Street to redefine the (pedestrian) street edge and provide daily activity in this minimally utilized area. Office, residential, and retail should all be considered to add vibrancy to the area and increase the plaza (park) use. New buildings could be built along the street edge, increasing the value of this Downtown address by adding additional habitable space. A

revitalized food venue should be considered. This would also help to aid safety concerns in the area by bringing more people to the Coliseum at all times of the day and not just for scheduled events. In the long-term, if City leaders decide to move the facility out of Downtown, the site should be returned to its original configuration as four urban blocks by opening up Clay Street and 6th Street. These blocks should be redeveloped with mixed-use, street-oriented buildings.

New development around the Convention Center is mixed-use, combining restaurants, business centers, shopping and gathering places.

Conduct feasibility study for two-block area around Coliseum.

A pedestrian street terminates Clay Street and provide additional connections through the Coliseum superblock.

Clay Street is reopened with the removal of the City's Public Safety Building.

Improve connections between the Convention Center and its environs
The Greater Richmond Convention Center is a major generator of economic activity for the Richmond region, drawing over 300,000 visitors to Richmond every year. The Convention Center was built in 1986, however it was expanded dramatically in 2003 from 167,000 square feet to 700,000 square feet encompassing five and a half city blocks. The Convention Center is an example of a regional partnership in Downtown Richmond, as it is the result of the combined efforts of the City of Richmond and Henrico, Hanover, and Chesterfield Counties.

The Convention Center fronts Broad Street, creating an opportunity to draw convention-goers and visitors into Downtown. At the moment, however, the area around the Convention Center has little street life and is unappealing to visitors, discouraging convention-goers from venturing further into Downtown. City leaders and Downtown investors should make the physical and economic revitalization of this area a priority. Some private and public investment in the area is already beginning to take place; it is important that this investment be channeled towards healthy urban development. The surface parking lot directly south of the Convention Center along Broad Street should be developed as a mixed-use, street-oriented building. Additional lodging, retail, and cultural attractions should be recruited to return to the area. Increased connections and public awareness for the businesses and cultural amenities along Broad Street should be marketed to Richmond residents, visitors, and workers.

There is also an opportunity to channel activity from the Convention Center to neighboring Jackson Ward. The rebirth of 2nd Street in Jackson Ward will need both local residents and out-of-town visitors support to have the best chance of success. Improved connections and visual interest on Marshall Street should work to encourage Convention Center patrons to visit the nearby Jackson Ward neighborhood.

Revitalize the Blues Armory complex including the former food court structure at Sixth Street

The Sixth Street Marketplace was an attempt by City leaders and ambitious investors to revitalize retail Downtown by competing directly with the suburbs. Constructed in 1985 as one of James Rouse's "festival marketplaces", the building was located near the Convention Center on three closed blocks of 6th Street. The Marketplace spanned Broad Street with an elevated pedestrian walkway. As retail and residents continued to move out of Downtown, and as Miller and Rhoads and Thalhimer's Department Stores closed their doors, the Marketplace fell into financial troubles. The primary structure and pedestrian bridge were demolished in 2003. Sixth Street was then reopened for vehicular travel between Grace and Marshall Streets.

Today, all that remains of the Sixth Street Marketplace is an atrium building that used to house a food court, which closed in May 2008. The building is in need of repairs and extensive investment of public and private dollars. A detailed feasibility study of the economics and design of the two block area should be conducted. This area includes: the Blues Armory structure, the former Sixth Street Marketplace structure, the atrium (formerly 6th Street between Marshall and Clay), the vacant land north of the Armory (including the Plaza, or park, land), and the closed two blocks of E. Clay Street. This study should be focused on determining the highest and best use of this two block area.

A series of parks along Broad Street provide public open space for shoppers, workers, and residents.

Maximize the historic prominence of the State Capitol

In light of the creation of the Virginia State Capitol Master Plan in 2005 and the completion of the Capitol Restoration and the new Visitor's Center, continued efforts should be made to reconnect the Capitol to Downtown. Many of the key recommendations of the Master Plan have been incorporated into the Downtown Plan, and the two Plans should be coordinated throughout their implementation. Views towards Capitol Square should be improved along primary streets, such as 9th, 10th, 11th, Broad, Grace, and Franklin Streets. One-way streets should be returned to two-way traffic, allowing drivers to approach the Capitol along a main visual axis. Two-way streets will also allow clear access to the Capitol from all directions. Broad Street, in particular, should be developed as a primary route toward the State Capitol complex, with streetscape improvements and wayfinding that will enhance the approach to the Capitol. The CDA streetscape should be encouraged to extend to Capitol Square. Parking for visitors should be located off-site in mid-block, shared parking structures and signage should be made very clear to direct visitors to parking locations.

The Capitol Square Landscape Master Plan, which outlines the reconstruction and preservation of the Capitol gardens and open space, should be carried out, and continued efforts should be made to preserve and maintain the historic open space of the Capitol. The Commonwealth and the City should continue to work together to evaluate both public and private development and redevelopment projects that affect the image of Capitol Square and the context of the surrounding historic area.

The State Capitol should be reconnected to the river. With the construction of the Capitol Visitor's Center underground entrance at its terminus, Tenth Street has gained a certain amount of significance. Tenth Street currently terminates at an electrical substation on Brown's Island. Streetscape elements should be used to highlight Tenth Street as a special street and to create a visual connection from the Capitol to the River.

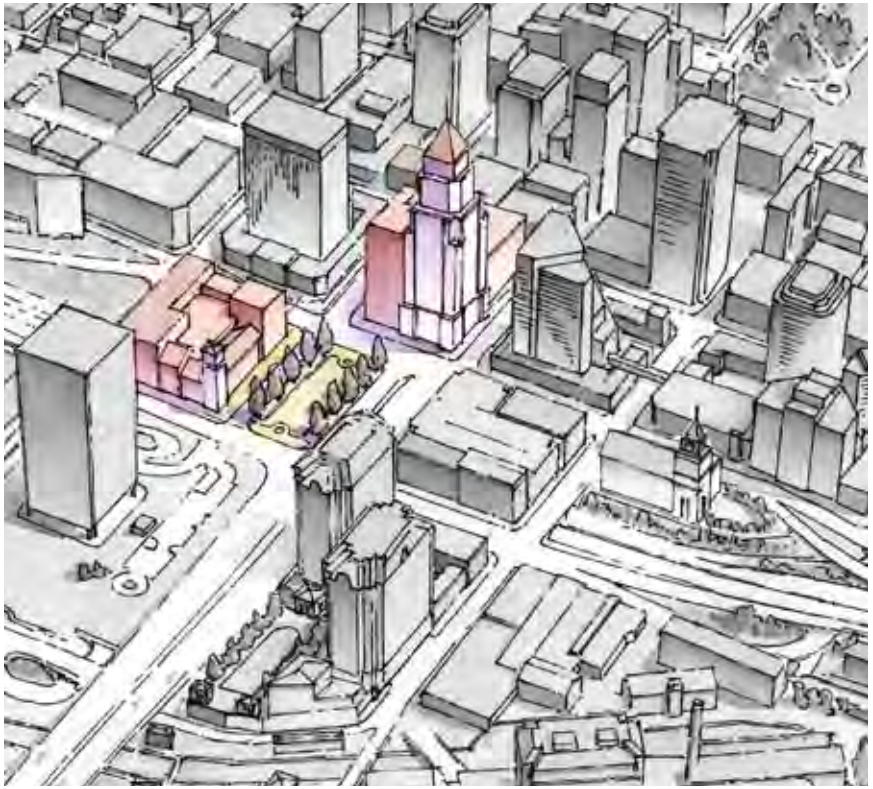
Encourage the Commonwealth of Virginia to continue to designate a Capitol Square Complex liaison

The Commonwealth of Virginia has designated, and is encouraged to continue to designate, a liaison that is capable of providing architectural,

historic preservation, and planning expertise pertaining to the Capitol Square Complex and state-owned properties within downtown.

Terminate the Manchester Bridge vista with a signature building
The Manchester Bridge is a primary entrance from the south into Downtown. The bridge extends to 9th Street and currently terminates on a surface parking lot. This under-utilized property should be developed as a signature gateway building. This building should engage the pedestrian and respect the human scale. The ground floor should be dedicated to active, street-oriented uses such as offices, office lobbies, hotel lobbies, or shops, in order to engage pedestrians and contribute to the vitality of the street. Parking should be located in a mid-block garage that is lined on all sides with habitable space. It should have a clearly defined base, middle and top that relate to the function of each part of the building. For instance, the base carries the weight of the building and communicates directly with the pedestrian and the street level, the middle holds the majority of the program of the building and the top of the building engages the skyline and can serve as an icon for viewers from far away. A high-rise building at this location, built in the tradition of great American skyscrapers, could add to Richmond's skyline. Although not required, this could be an opportunity to add a corporate landmark building to the skyline.

The State Capitol is reconnected to the James River by developing 10th Street as a tree-lined green street that terminates in a river overlook.


A signature building is developed at the termination of the Manchester Bridge, marking a striking entrance into Downtown Richmond.

Improve Kanawha Plaza and enhance the park

Kanawha Plaza is located on a two block area (four acres) spanning the Downtown Expressway. The plaza fronts four busy roads, Byrd Street, Canal Street, Ninth Street and Seventh Street. It is surrounded by walls, limiting visibility from the street and pedestrian accessibility. As a result, the plaza is vacant most of the time. The park should be cleaned and repaired as necessary and the walls should be removed where structurally feasible to increase the visibility and pedestrian access to the park. Access can also be improved with the use of clearly defined crosswalks and pedestrian signals on the roads adjacent to the park, and by reducing the speed of traffic on the adjacent roadways. Another way to improve accessibility and increase the use of Kanawha Plaza is to develop a portion of the four-acre open space with active uses, such as a civic or office building. Additional foot traffic will improve safety by providing "eyes on the plaza." The size and character of this proposed building should be determined by the load capacity of the plaza's platform, as was the case with the RMA parking deck between Ninth and Tenth Streets that spans the Downtown Expressway.

A plaza is created in front of the Federal Courthouse, providing usable open space along Broad Street.

Infill buildings respect the scale and character of the neighborhood.

Large office plazas are filled with liner building to define the street edge and introduce diversity and street activity to the area.

New parking garages are located mid-block and are wrapped with liner buildings.

Liner buildings define the street edge and repair the urban fabric.

A signature gateway building is developed to mark a grand entrance to Downtown from the Manchester Bridge.

Clear street connections are made to link Downtown to the James River and allow dramatic views of the water.

A Crucial Vista

Above left:
Manchester Bridge Vista – Existing
The Manchester Bridge is a primary entrance from the south into Downtown. The bridge extends to 9th Street and currently terminates on a surface parking lot.

Above & below right:
Manchester Bridge Vista – Signature Building
This signature gateway building should engage the pedestrian and respect the human scale. The ground floor should be dedicated to active, street-oriented uses such as cafes, shops and services in order to engage pedestrians and contribute to the vitality of the street. The architectural style can vary, as shown in the two versions to the right, but the details and proportions should be that of traditional urban architecture.

MANCHESTER

Manchester, located south of the James River, has a distinct identity from Downtown Richmond while enjoying close proximity to its employment and cultural opportunities. Manchester is comprised of three distinct areas, each of which has its own unique characteristics. These areas include Manchester, Industrial Manchester, and the Riverfront. Manchester is located west of Commerce Road, and consists of a traditional historic neighborhood centered upon a traditional Main Street – Hull Street. The area is part of a conservation and redevelopment area. Industrial Manchester, located northeast of Commerce Road, is a mix of industrial, heavy commercial, and recently renovated offices and lofts, characterized by historic brick warehouses. The Riverfront is characterized by natural and industrial open space, creeks and canals, and dramatic bluffs that afford dramatic views of Downtown Richmond. Blackwell is a traditional residential neighborhood southeast of Hull Street and Commerce Road, that is one of the busiest Neighborhoods in Bloom areas. In recent years Blackwell has experienced significant redevelopment.

Manchester was an independent municipality that developed side-by-side with Richmond, and was later incorporated in the 20th century. Accordingly, it has a unique and rich history that is still evident in its urban fabric and architecture. One of the greatest legacies of Manchester's past is its compact street network, which affords great opportunity for walkability and a healthy, compact, mixed-use community. Furthermore, the tightly-defined street grid creates ideal conditions for on-street transit lines, opening the door for a future Richmond streetcar line that could connect Manchester to Downtown Richmond. Manchester supports and enhances the viability of Downtown Richmond by providing affordable housing and charming character for residents. Its healthy industrial district contributes to the variety of Richmond's economic base and allows the city to retain greater self-sufficiency. Finally, Manchester's topography and location in relation to Downtown Richmond affords dramatic views of the Downtown skyline and the James River.

While Manchester's urban fabric and infrastructure remain perfectly suited for a vibrant walkable community, the district has faced several challenges to revitalization. With the advent of the interstate system, the suburbs, and traffic engineering strategies such as street widening on Commerce Road, that accelerated movement into and out of the district, the area experienced economic decline, still evident today in the large number of vacant houses and storefronts. There is also a high level of vacant lots throughout the residential district of Manchester, a result of an aggressive blight removal strategy. Another force affecting Manchester is the influx of large corporations locating their headquarters along Semmes Avenue and the riverfront in buildings that have little relationship to the river and adjoining neighborhoods. As a result of a decline in population and tax-base, much of the public infrastructure of Manchester is in need of repair, particularly streetscape elements such as sidewalks, paving, street trees and furniture. However, recent private investment in Manchester's historic industrial district has introduced a dynamic mix of residential, office and retail space into the once primarily industrial and heavy commercial district as seen in the cases of Plant Zero and Dominion Box Factory.

General Recommendations

- (A) Street trees to create desirable addresses and enhance the pedestrian environment on Riverview Parkway
- (B) Mid-block parking garage to provide needed parking, lined with habitable spaces to create a pedestrian-friendly street frontage
- (C) Infill buildings that create a continuous street frontage and respect the character of the neighborhood with similar massing and architectural elements
- (D) Main street and facade improvements
- (E) Trail created along the Riverview Parkway to connect with existing trails that lead to river outlooks
- (F) When and if industrial uses are abandoned, alternate uses should be considered for these properties.

- (G) Roundabouts to improve traffic circulation
- (H) Trail along Miller's Creek
- (I) On-street parking
- (J) The expanded courthouse will serve as a gateway into Hull Street's retail core
- (K) Mayo Bridge rehabilitated to its historic character, accommodating pedestrian, vehicular and streetcar uses
- (L) Richmond Slave Trail
- (M) Miller's Creek Linear Park
- (N) New green space/ parks to serve the surrounding businesses and residences
- (O) Trolley system brought back to Downtown, with a connection to Manchester
- (P) When and if industrial uses are abandoned, alternate uses should be considered for these properties
- (Q) 13th Street wetlands preserved as a valuable wildlife habitat and storm-water infiltration area
- (R) Add on-street parking to both sides of streets and add a landscaped median

Plant and maintain native trees to create memorable streets.
It is essential that trees are planted along all primary Downtown streets in order to create walkable districts. Trees should be native species that are drought and pollution-tolerant and that provide a sufficient shade canopy that is high enough to leave the pedestrian and vehicle realm clear. They should not have fruit or seeds that will drop and litter or stain the sidewalk. Trees should be selected based on their life-span and size, so that they do not outgrow their surroundings. Trees should be planted at the back of curb on the sidewalk in order to provide shade for pedestrians and a sense of enclosure for drivers. Street trees should be consistently planted along Hull Street, Commerce Road, Cowardin Avenue, and Semmes Avenue in order to emphasize their role as primary Manchester thoroughfares. Street trees will assist in way-finding, will increase property value, and will create an enjoyable pedestrian environment.

Create appropriate neighborhood infill
Manchester will benefit greatly from new construction and the infill of its many vacant properties. Such infill will introduce new energy to the district by increasing the residential population, repairing the streetscape, and enhancing safety by providing "eyes on the street." It is essential that while Manchester grows and fills in its vacant lots with new buildings, that these buildings respect the existing historic architecture of the district. The historic lot lines, setbacks, footprint, height, massing and details of the surrounding buildings should guide all decisions for new construction. One tool to guide new construction is the Manchester Redevelopment Design Guidelines document, created by the City of Richmond, which details the character and scale of appropriate infill. Other tools include the rural to urban Transect, which details specific urban design and architectural standards for properties in relationship to their context. More information about the Transect is found in Chapter Three. Finally, the Downtown Plan should be used as a road map for redevelopment, illustrating appropriate locations and configurations for infill construction.

New infill in Manchester respects the scale, orientation, and character of the existing neighborhood, and fronts the street.


The historic buildings in Manchester should be preserved, and new infill development should respect the character of the historic neighborhood.

This cross-section demonstrates a liner building that masks a mid-block parking garage, allowing off-street parking to be integrated into a pedestrian-oriented neighborhood.-

Locate parking garages and parking lots mid-block

As Hull Street revitalizes and returns to its original role as a commercial mixed-use center, it will need convenient off-street parking to support more frequent visitors. Two parking garages are envisioned for Hull Street, one located at each end, anchoring the shopping district and allowing regional shoppers to activate both ends of the street. The garages should be built as a public-private partnership in coordination with Hull Street businesses, developers, and the City of Richmond. One of these garages will also serve the Manchester Courthouse. Surface parking lots behind buildings may also be used to accommodate off-street parking needs.

It is essential that these parking garages and lots are located mid-block, concealed from view from the street by buildings that are at least 40' deep. These liner buildings should relate to the neighboring buildings in height, scale and character so that the urban fabric remains continuous. These buildings can accommodate residential, office, or retail uses as appropriate. For instance, the parking garage on the western end of Hull Street should be lined with a residential building, as the surrounding properties are primarily single-family residential. The parking garage on the eastern edge of Hull Street, on the other hand, may be lined with a building that has ground-floor retail and office space above, as the garage is located at the prominent intersection of Commerce Road and Hull Street. Surface lots may be located mid-block behind the storefronts along Hull Street, providing that they are concealed by buildings. The entrance to both parking garages and parking lots should be from secondary streets, in this case from Manchester's numbered streets. In no case should driveways into parking structures be located on main streets such as Hull Street.

Develop Manchester Courthouse as a gateway

Existing plans for an expanded Manchester Courthouse should be used to develop this important civic building as a gateway to the Hull Street shopping district. In addition to the expanded building, the Courthouse can be enhanced with appropriate landscaping, streetscape, and infill buildings in the adjacent blocks. These efforts should ultimately enhance the Courthouse's connection to the surrounding neighborhood, and revitalize the commercial uses along Hull Street with an influx of visitors.

The open space surrounding the Courthouse should be reserved as a civic public space to serve residents, visitors to the courthouse, and to provide park space for Hull Street. The streetscape around the Courthouse should be enhanced to signify the Courthouse's role in the public life of Manchester. Street trees should be planted along expanded sidewalks, particularly along Hull Street. Proposed street improvements along Hull Street will allow for on-street parking, and future transit lines, which will serve visitors to the Courthouse and further support its role as an entryway.

Finally, appropriate infill in the blocks adjacent to the Courthouse will serve to define the space and will create a continuous streetscape connecting the shopping district to the civic building. A parking garage to the east of the Courthouse will serve the parking needs for the expanded space, as well as for the eastern end of Hull Street. This parking garage will be wrapped with habitable liner buildings along all public street fronts so that the block is integrated into the urban fabric. This liner

building should be at least 40' deep and should include retail uses on the ground floor, particularly along Hull Street and Commerce Road. Entrances to the parking garage should be located on secondary streets such as West 10th Street or Decatur Street.

Provide a central green for residents

It is important to set aside park space today, in anticipation of an increased population that will need public open space for recreation and gathering. As the district experiences infill and redevelopment, the need for open space will become evident. It is ideal that this park encompass an entire block within the residential district of Manchester in order to be fully public and elegantly serve the surrounding properties. The proposed park is located between 11th and 12th Streets and Porter and Perry Streets. The site of this proposed park is currently owned by the Richmond Redevelopment Housing Authority (RRHA).

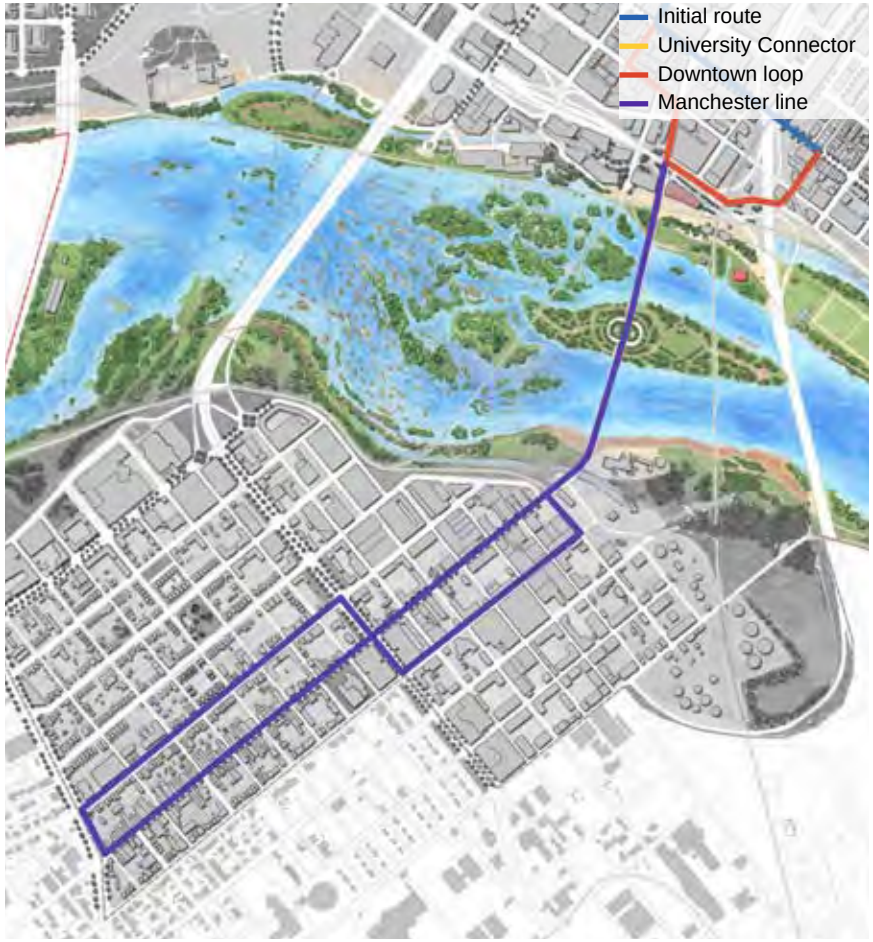
Revitalize Hull Street

Hull Street is the historic main street of Manchester and remains almost completely intact, with elegant historic shopfronts and a significant stock of civic, commercial, residential and office buildings defining the street. While a number of different shops remain open on the street, the majority of the buildings are vacant, lending the street an empty, bygone feeling. It is important that Hull Street be revitalized to its original status as the bustling commercial center of Manchester.

In order to achieve private revitalization on Hull Street, the City of Richmond should undertake a number of public investments such as streetscape improvements, mid-block parking garages and mid-block surface lots (both behind buildings), and transit to attract business owners, shoppers and residents. Streetscape improvements, which have already been initiated by the City of Richmond, include regularly planted shade trees, historic street lighting, benches, trash cans, and brick and granite sidewalks. Additional measures that must be provided to support a vibrant district include convenient parking and transit connections. The Plan details a new configuration for Hull Street that includes on-street parallel parking and in-street streetcar tracks, both of which will support regional access to Hull Street. More information about Hull Street

A series of neighborhood greens will provide recreational opportunities for residents as Manchester develops.

Hull Street is characterized by a high concentration of historic Main Street buildings.



A proposed trolley path runs down Hull Street and returns along Bainbridge and Decatur Streets, reconnecting Old Manchester to Downtown.

improvements can be found in Chapter 5 – Transportation Analysis. Additional parking needs are addressed with parking garages located at each end of Hull Street, and surface lots located in the interior of some commercial blocks.

Once the character of Manchester is enhanced and the infrastructure is in place, incentives such as historic preservation tax credits and Business Improvement Districts should be established to promote private investment and appropriate renovation of historic buildings. Façade improvements and restoration of the historic character of shopfronts should be encouraged. The portion of Hull Street between Commerce Avenue and West 12th Street should be the focus of early revitalization efforts, as this area is closest to existing redevelopment efforts in the industrial district. This section has the most infill opportunities and features the expanded Courthouse, which will bring additional visitors and bring business opportunities to the area.

Prepare for transit connections

In order for Manchester to fully realize its potential as a unique mixed-use district of Downtown Richmond, it should plan for a multi-modal future. Pedestrians, bicyclists and transit lines should be considered in all plans for future growth. Planning for a multi-modal system will reduce the need for automobiles and will use Manchester's traditional urban fabric as it was intended. This will also reduce the need for parking garages and lots, which would occupy valuable land in the commercial center.

Preparations for transit include developing a dense and walkable district that is designed to support transit ridership. All of the recommendations in this chapter support a "transit-ready" district. Once the appropriate development is in place, a streetcar line can be implemented successfully. In accordance with existing plans for a Downtown streetcar line, the Plan illustrates a potential streetcar spur that could extend into Manchester, running down Hull Street and returning along Bainbridge and Decatur Streets. These streets, in particular, should be improved and developed with a future streetcar line in mind.

Revitalizing Hull Street and Preparing for Transit

Existing Conditions at the Intersection of Hull Street and West 7th Street, looking northeast to the James River:
While the block size and sidewalk width along Hull Street are ideal for pedestrian use, the existing condition of the street does not encourage pedestrian activity. Vacant lots, broken sidewalks, asphalt and overhead utility lines define the street. Pedestrians are deterred from this environment because they are left exposed to heat, rain, and speeding traffic. Furthermore, the lack of activity on the street can lead to safety concerns.

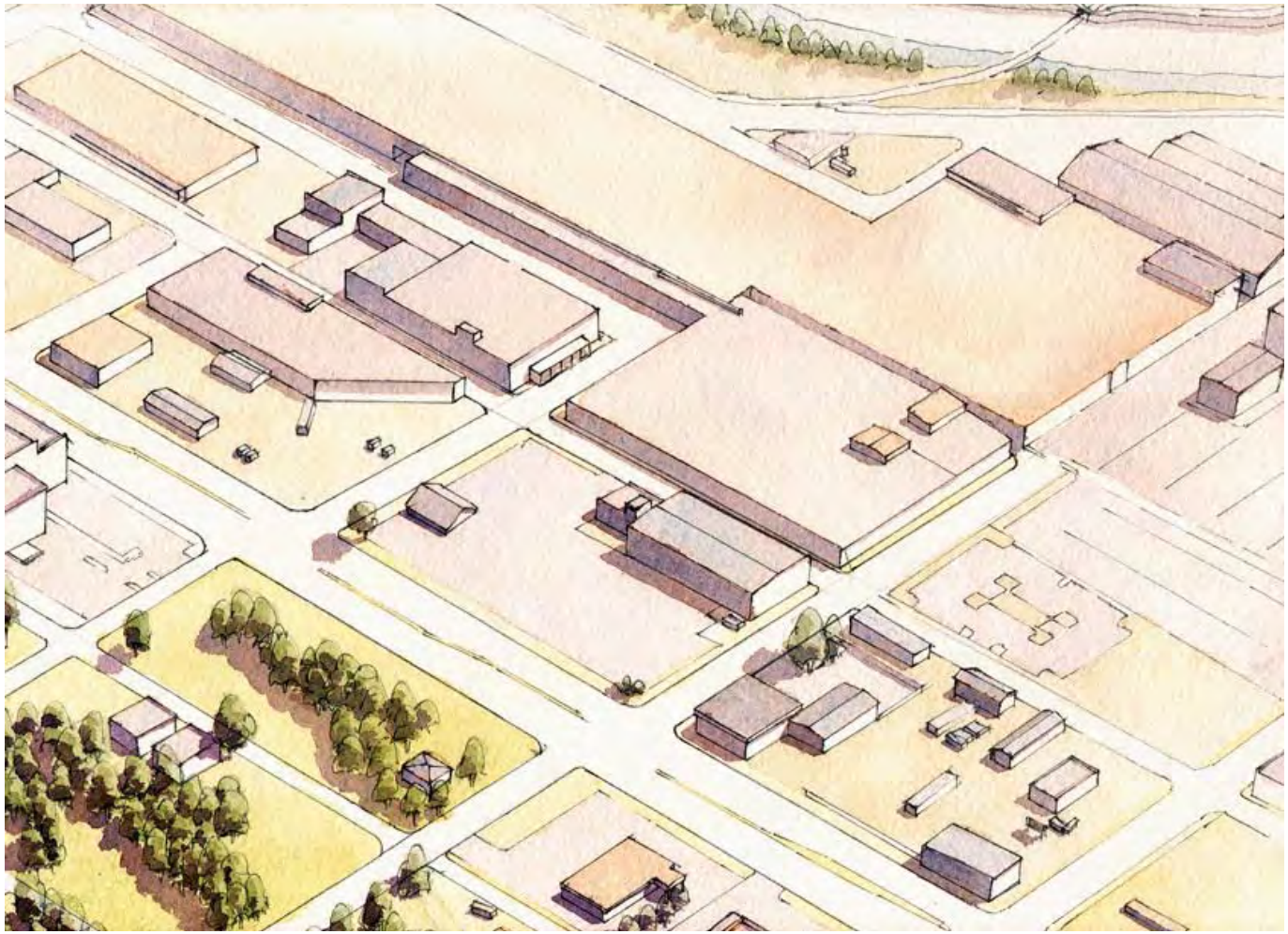
Public Works Improvement:
Strategic public improvements are the first step towards civilizing the pedestrian realm of Hull Street. Street trees, appropriately-scaled lighting, and improved sidewalks provide comfort for pedestrians. Clearly defined crosswalks, on-street parking, and narrower travel lanes slow traffic and allow pedestrians to walk with confidence.

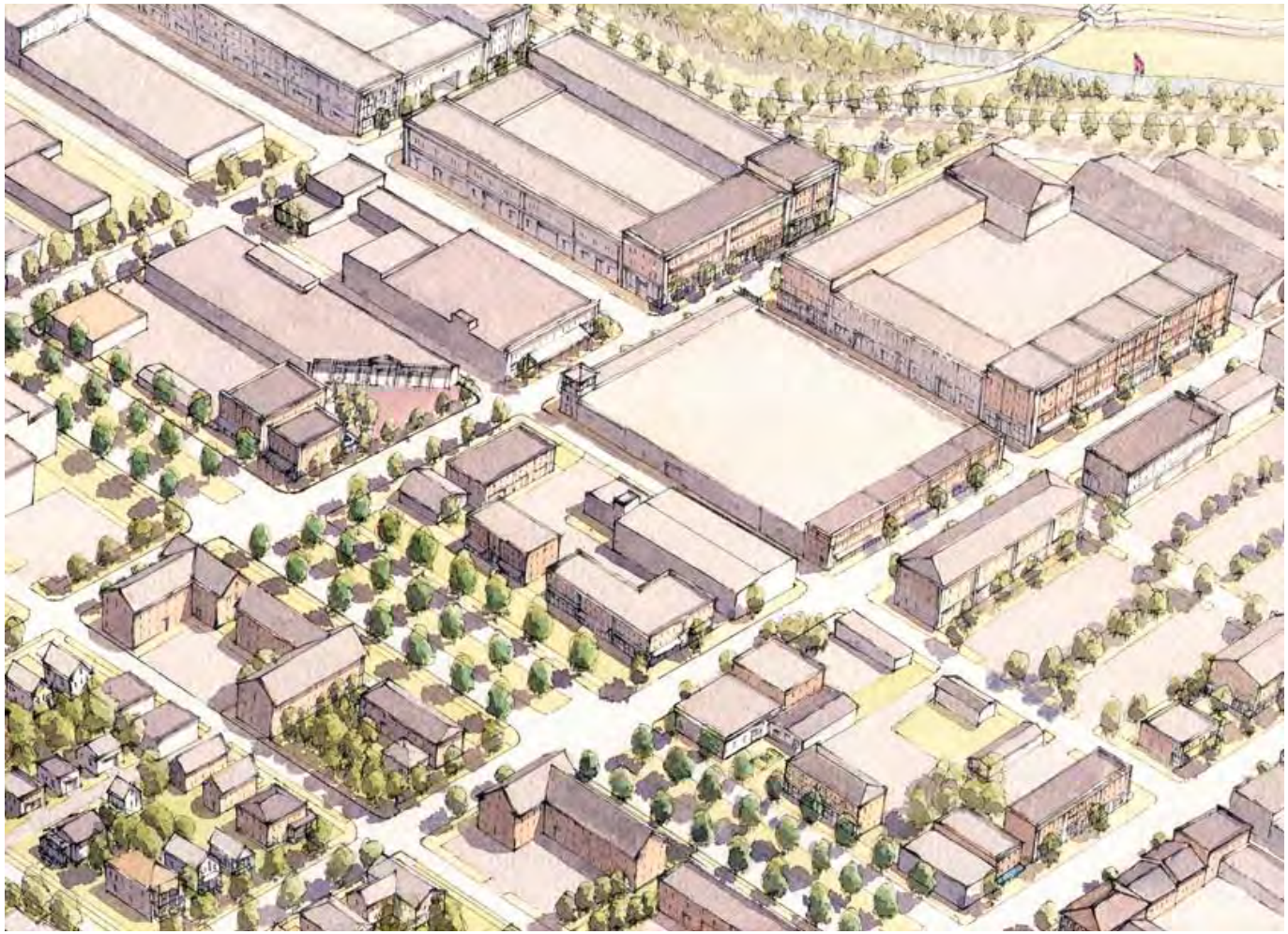
Private Investment:
Private investment marks the final step in creating a vibrant street. Appropriate new development and historic renovation is mixed-use, and fronts the street with generous windows and main entrances. Buildings are detailed with features such as stoops and awnings to create an interactive streetscape that becomes a destination for pedestrians.

Transit Future:
After public and private investment have transformed Hull Street into a walkable destination, it is transit ready. The proposed Richmond streetcar runs along Hull Street, connecting Manchester to the rest of Downtown Richmond and further encouraging pedestrian-friendly development in the district.

INDUSTRIAL MANCHESTER- BEFORE
This area of Manchester is notable for its use as an industrial and heavy commercial district. The area is currently experiencing the early stages of redevelopment into a mixed-use district, with its historic warehouses being adaptively reused as art galleries, studios and lofts. It is important that the needs of the existing industrial and commercial establishments be carefully accommodated first, and then balanced with any new residential and office uses.

The district is currently characterized by historic warehouses and industrial buildings that range from lot-size to large complexes. These buildings define a comfortably-proportioned street realm, and are characterized by brick detailing that lends a historic charm to the district. In one instance, an industrial building has agglomerated four urban blocks, interrupting the street grid. Most of the buildings were positioned with little regard to the River or to Commerce Road, leaving both ends of the district undefined. Trees are absent from the streetscape.





INDUSTRIAL MANCHESTER- AFTER
As Industrial Manchester evolves, greater emphasis should be placed upon Commerce Road. Infill buildings should define this roadway and improved streetscape and open space will enhance its role as an entrance to Manchester. The Riverfront should also be developed as a recreational roadway wrapping around the district, with buildings addressing the river and a system of parks providing connections to the water.

When the traditional urban block is recaptured over time, the four-block industrial building that currently fronts the river should be redeveloped as four distinct blocks. McDonough, Perry and Porter Streets, as well 5th Street, should be reopened to allow access to the riverfront. Existing buildings should be re-used and preserved where possible, and new construction should respect the scale and character of the historic warehouses in the district.

Maintain viable industrial uses
As Industrial Manchester experiences dynamic redevelopment as a trendy artist destination, with studios, galleries, and lofts, it is important that the existing architectural and urban character of the district is maintained. The City must carefully consider proposals to continue to introduce mixed uses in this area, ensuring that new residential and office uses do not conflict with the existing, healthy industrial economy. This district contributes to the economic vitality of Richmond by providing variety in the economic base and supplying industrial services in close proximity to Downtown. New infill construction should define the street, but provide generous mid-block, open-air space for storage, work yards, and machinery, some of the many requirements for successful industrial establishments.

Restore historic industrial buildings
In recent years, many of Industrial Manchester's historic warehouses have been restored and adaptively reused as office space, restaurants, lofts, and artist studios and galleries. Whether these buildings are adaptively reused in this manner or are preserved and continue to be used as industrial buildings, it is important that the architectural heritage of the district be preserved and celebrated. This can be encouraged through the continued usage of historic investment tax credit incentives, the establishment of a City Old and Historic District, and/or a Business Improvement District.

Protect the Riverfront and greenways
In order to better take advantage of Manchester's dramatic riverfront, a continuous waterfront parkway should be created for the use of drivers, bicyclists and pedestrians. This can be accomplished by extending Riverview Parkway east of 13th Street and connecting it to a traffic circle at 7th Street. This roadway will then continue east along Semmes Avenue and connect to a newly-extended 5th street, continue south and will pass an river overlook park, and connect to Porter Street, where it will finally intersect Hull Street and allow travelers to continue, cross the 14th Street Bridge, or enter the heart of Manchester by way of Hull Street.

In order to accomplish this connected riverfront roadway, the existing SunTrust Bank parking lot, which is located in the path of the proposed

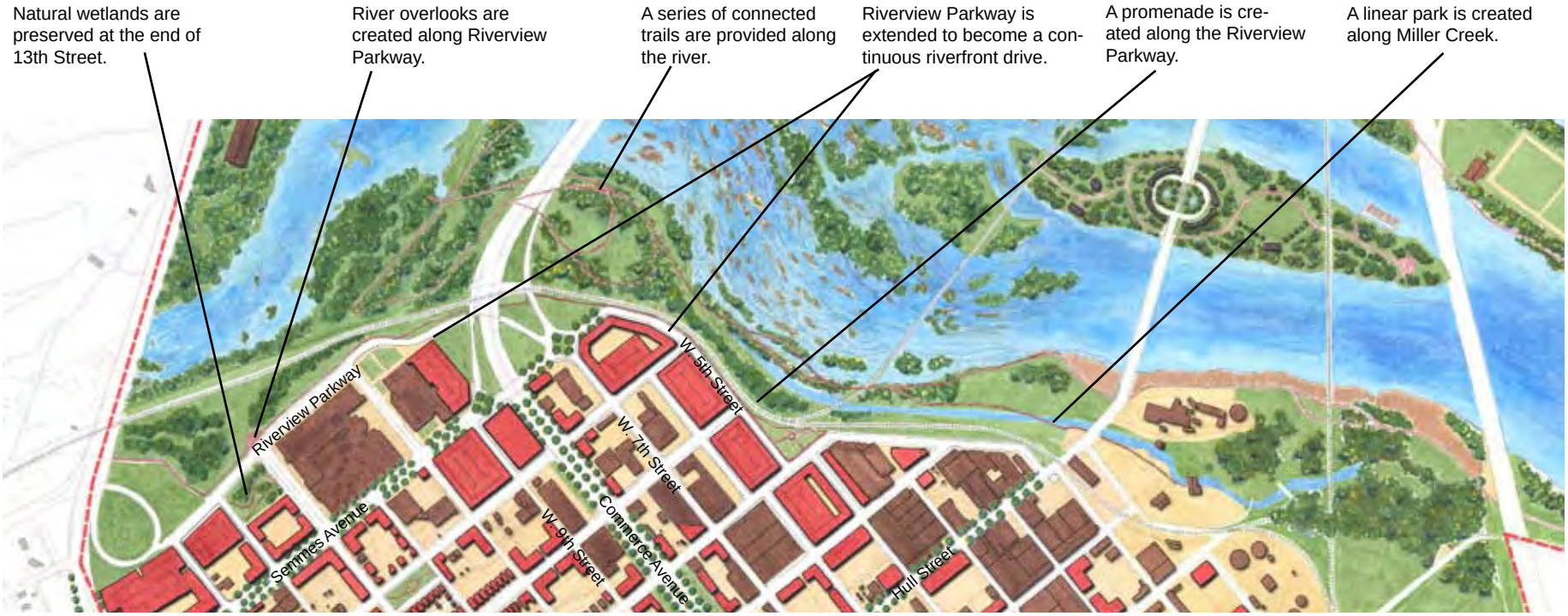
Manchester's riverfront affords dramatic views of Downtown.

Healthy industrial uses in Manchester should be retained in order to provide economic diversity in Downtown.

roadway, should be relocated and developed as a parking garage. This garage should be lined and developed as a gateway to Manchester from the Manchester Bridge. The roundabouts will simplify and coordinate the proposed five-way intersection, and the redevelopment of the existing four-block industrial building will allow 5th Street to be continued along the waterfront, resulting in a continuous riverfront drive. Complementing this newly developed waterfront roadway is a continuous trail system that connects a series of overlooks and parks, providing an alternative route for pedestrians and bicyclists.

Protect 13th Street wetlands

The parcel of land at the corner of 13th Street and Riverview Parkway is a natural wetland and should be maintained as such. These wetlands will enhance the area by providing a valuable wildlife habitat and stormwater infiltration. The parcel can be used for recreation and enjoyment as well. Overlooks can be incorporated into the open space, and trails leading up the hill can connect to the larger Riverview Parkway trail system.



JAMES RIVER

The James River is an invaluable natural resource that adds to the overall health and livelihood of Richmond's residents, visitors and workers. It provides open space and scenery to the urban landscape, it creates both passive and active recreational opportunities in the water and along its banks, and it helps to cool the city during hot summer months. The James River is gaining regional and national notoriety for rowing clubs, kayakers, mountain bikers and rock climbers. In order to protect all of these benefits for residents in Richmond and cities downstream, a series of building restrictions are in place in the form of floodplain limits and Chesapeake Bay Preservation Act boundaries.

Along the James River, open space falls into three general categories: publicly held open space, industrial land, and transit corridors. Most of the publicly held open space along the James River corridor is part of the James River Park System. The park system comprises 550 acres of land that is conserved as a wilderness area and used for recreational activities such as hiking, mountain biking, kayaking and rafting. Although they no longer use the river to power their machinery, remnants of Richmond's industrial corridor and its related open space still exist along the banks of the James River. The remaining open space along the James River belongs to the railroads, set up for easy interaction with the adjacent industrial land. Although they are relatively narrow pieces of land, these railroad rights-of-way and sidings tend to be completely enclosed, creating a barrier between adjacent neighborhoods and the river.

Another challenge to riverfront accessibility is the privatization of land along the river, including the uninhabited islands in the river. Mayo Island, half of Brown's Island, Vauxhall Island, and most of the Canal and James River waterfront is privately held by individuals, corporations, and industrial owners. While it is impractical to consider buying back all of these properties for public use in the present generation, the City should plan strategic purchases of some of these properties, and should secure waterfront access and trail right-of-way rights from the others, regardless of whether there is future development by the private and/or public sectors. If public access to the waterfront and trail right-of-way has not been secured previously, these rights should be provided at the time of any public or private development on a canal or riverfront property.

Another dynamic element of Richmond's waterfront is its historic canals. During the 19th and early 20th centuries, Richmond's canals were the center of the city's economic and industrial vitality. By the time businesses and factories started shipping and receiving their goods via the highways that cut swaths through Richmond's Downtown, the canals had long since been abandoned. Today, new interest has been taken in these canals as recreational and historic resources. Reconnecting these canal remnants will serve to create increased opportunities for historic interpretation, recreation along the canals, and further connections to the river's edge.

The James River is a natural amenity and the centerpiece of Downtown Richmond.

General Recommendations

- (A) Pedestrian bridge constructed over abandoned rail foundations
- (B) Boardwalk along Pipeline Rapids
- (C) Canal Walk
- (D) Rapids overlook
- (E) Canal Dock
- (F) Mayo Bridge rehabilitated to its historic, multimodal character.
- (G) Trolley system brought back to Downtown, with a connection to Manchester
- (H) Kayak access
- (I) Waterfront Park
- (J) Richmond Slave Trail
- (K) Miller's Creek linear park
- (L) Walking trails for access to natural areas
- (M) Great Shiplock Park
- (N) Ancarrow's Landing
- (O) Riverview Parkway
- (P) James River promenade
- (Q) Trail along the Riverview Parkway that connects to existing trails leading to river outlooks
- (R) Roundabouts to improve circulation in the area
- (S) Preservation of the 13th Street wetlands as a valuable wildlife habitat and stormwater infiltration area
- (T) Emphasis on both visual and physical connectivity between Downtown and its open space
- (U) Trolley stop
- (V) Amphitheater
- (W) Possible location for rowing club boathouse at Ancarrow Landing

Improve visual and physical access to the river
In order to draw more people to the riverfront, visual and physical access to the James River needs to be improved and emphasized. Improving streetscape elements such as street trees, furniture and paving on streets that run perpendicular to the river will serve to both highlight view corridors and create enhanced pedestrian and bicycle access to the water's edge. Terminating as many streets as possible at river overlooks will create additional views that will invite visitors to explore the open spaces along the river.

In addition to creating new view corridors to the James River, preserving existing and historic viewsheds towards the river is essential to connecting the city to the river. Future development along the riverfront needs to be carefully considered so that it will not impact significant historic views such as "the view that named Richmond" from the top of Libby Hill Park. This would be accomplished through the control of building height and massing on a case-by-case basis according to the Character Area designation.

Create an interconnected system of trails along the river
A series of disconnected parks, walks and overlooks provide access to the James River. By connecting each of these points along the waterfront, a series of trails begins to take shape. By connecting these new trails back to existing paths, as well as to sidewalks and bike lanes within the street grid, an entire system of loop trails and paths begins to take shape, connecting the entire city of Richmond to its waterfront. In addition to creating continuous access along each bank of the James River, connectivity between the river banks can be improved by utilizing established connections. By modifying existing bridges to be more pedestrian-friendly and to include a mix of transportation choices, the system of trails that has been created on each side of the river to better connect the city as a whole.

Maintain Brown's Island as an outdoor festival venue and improve connectivity
In addition to a network of trails connecting the island to the Canal Walk, the west side of Brown's Island consists of an open area capable of accommodating up to 10,000 people for outdoor concerts, as well as a partially restored bridge and memorial commemorating the April 1865 Evacuation Fire. The east side of the island is occupied by an electric power substation, high rise mixed-use development and a building that once housed

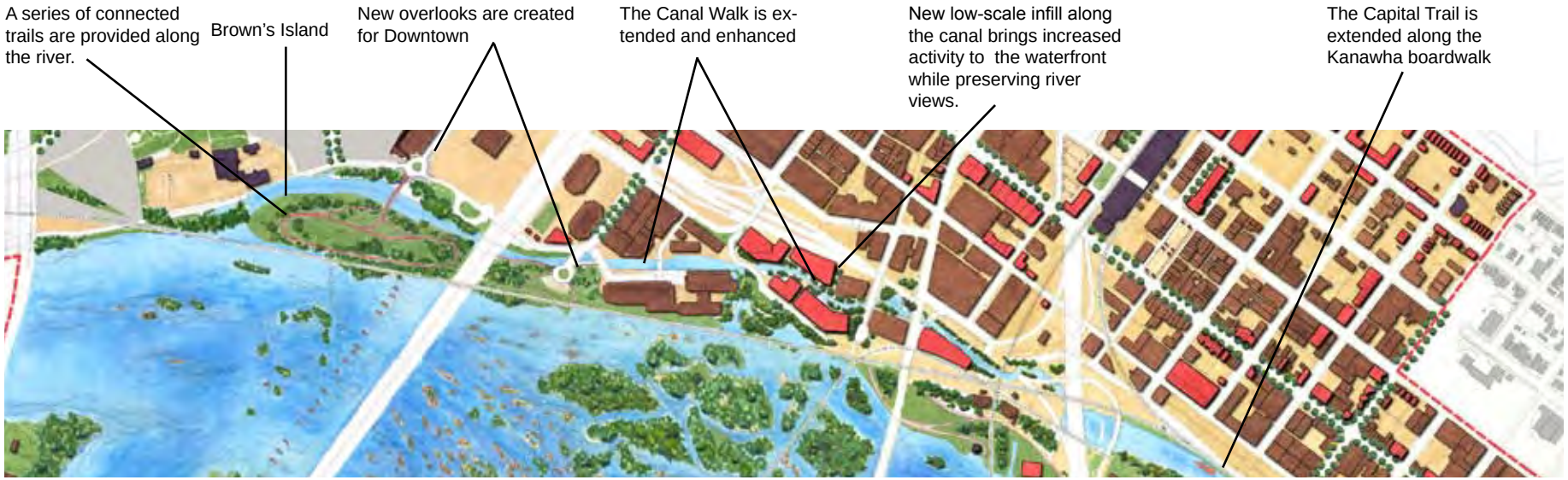
the hydroelectric plant that powered Richmond's trolley system. Brown's Island should be enhanced and maintained as an outdoor concert and festival venue. Should Virginia Dominion Power ever decide to relocate its electric substation facilities, consideration should be given toward expanding 10th Street across the canal to a river overlook with pedestrian trails to connect to the Canal Walk.

Open Chapel Island to pedestrians and kayakers

Chapel Island, located south of Kanawha Canal, is currently used by the City of Richmond as an overflow storage area for the city's combined sewer system and a rail siding for freight trains. Only the very eastern tip of the island is publicly accessible, via Great Shiplock Park. A system of loop trails should be created around the island, while still separating the general public from the combined sewer holding tank, future improvements related to the expansion of the holding tank, and rail sidings. Paths leading down from sidewalks along the 14th Street Bridge can provide pedestrian access through the floodwall and on to Chapel Island. Existing pedestrian openings in the floodwall underneath the I-95 overpass can be utilized to connect to a new bridge taking pedestrians and bicyclists over the Kanawha Canal and rail siding, connecting them to the system of trails on the south side of the island. A kayak take-out space should be located at the western tip of the island, just downstream from the end of the class IV rapids. Other elements of the proposed park for Chapel Island should include a small boat launch, rowing facilities, a usable surface for recreation on top of the combined sewer holding tank, river overlooks, open space for passive recreation, and trail connections to the rest of the proposed riverfront trail system.

Make Great Shiplock Park accessible

Great Shiplock Park is located between Shockoe Bottom and the James River, at the outlet of the Kanawha Canal and the James River. This relatively isolated park has ample parking and provides access to some of the canal's few remaining historic locks, as well as the only current public access point onto Chapel Island. Beyond the parking lot and locks, the park's trails and river access have been left relatively wild. With the construction of the Virginia Capital Trail, Great Shiplock Park will become a center of activity. The park will signal an entrance into Richmond and will serve as the last leg of the trail that connects Richmond to Williams-



The Canal Walk and Capitol Trail add significant access to the waterfront in Downtown.

burg. To further enhance the area, a maritime museum and interpretive center that highlights the historic locks should be located at Great Shiplock Park. Existing trails should be formalized to provide easier access to the proposed trail system along Chapel Island as well as along Dock Street under the railroad truss.

Extend and enhance the Canal Walk

Portions of the Kanawha and Haxall Canals were restored by the City of Richmond in 1999 to allow historic interpretation, passive recreation opportunities, and boat cruises along these historic canals. The Canal Walk has begun to attract stores, restaurants and nightclubs to its frontage, and opportunities exist for continued economic development along the canal. The Canal Walk should continue to be developed and maintained at its current high level of care. Adaptive reuse or unobtrusive infill development should be arranged to provide frontage on the canal without blocking existing views to the James River. One opportunity for this type of development is found between South 12th Street and Virginia Street. Existing buildings which cover the canal should, in the long term, be demolished and the canal should be reopened in order to create a continuous path through Downtown.

Acquire unique properties for open space along the river

The City should actively work to acquire properties for public open space along the river. As the revitalization of Downtown continues, and as more people begin living and working in the area, the need for open space will swell and new signature spaces along the river will need to be made available to all. Now is the time to realize that key properties are limited in number and for the City to actively pursue the purchase of these properties. Properties to acquire include those with historic, scenic, wildlife, or recreational values, among others. In particular, the former Tarmac property parcel and the LeHigh Cement Factory on the north side of the river and Mayo Island in the center of the river should be purchased. The City should purchase the properties at fair market value and negotiations with these various property owners should begin as soon as possible.

If the properties are not acquired by the City for public use, any redevelopment should include significant public open space components, including spaces that allow for access to the James River. Necessary water

At present, river access is possible only at a few locations, such as Great Shiplock Park.

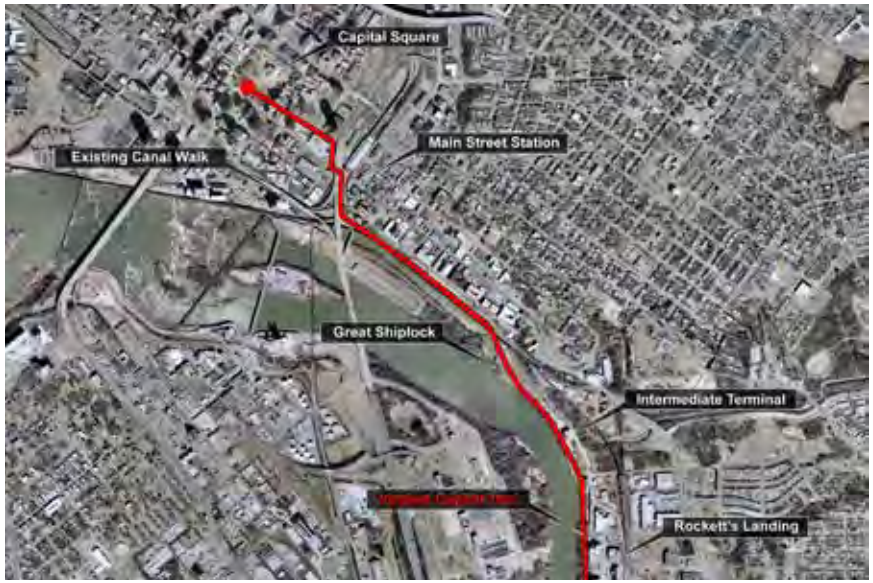
Richmond's existing riverfront trails are left wild and are difficult to use.

Development Scenario

The Character Map for the Development scenario illustrates the development of the property, with a strip of land along the waterfront designated for public use.

Public Open Space Scenario

The Character Map for the Public Open Space scenario illustrates the preservation of the waterfront property as a Natural Area.



New trails such as the Virginia Capital Trail will allow greater enjoyment of the James River.

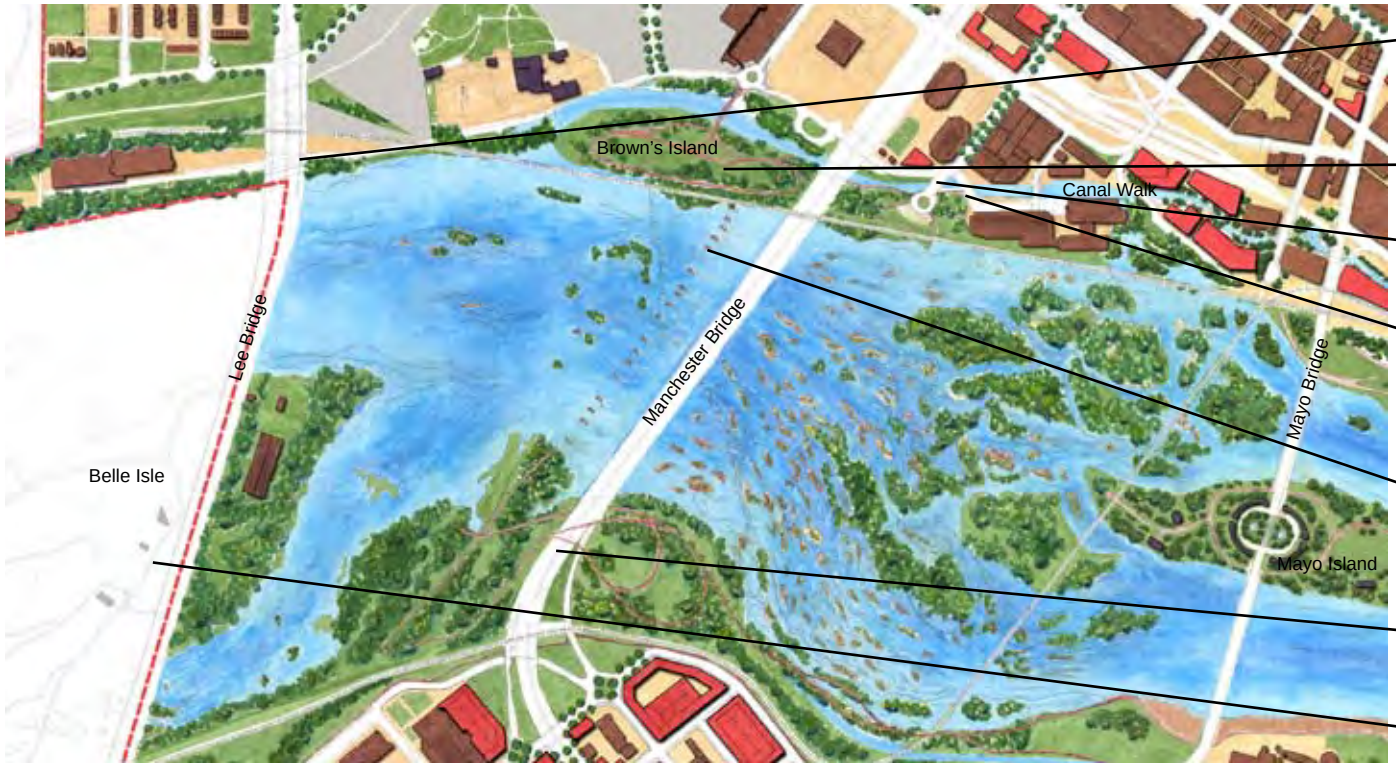
pollution control and stormwater facilities can also be reasonably accommodated within these waterfront properties, meeting the needs of the community and protecting the river.

Bring back historic boat docks
Historic boat docks can be found along the Kanawha Canal, between 18th Street and 26th Street and also at Richmond Intermediate Terminal. East of the I-95 bridge, the Kanawha Canal is a little used stretch of water dividing Chapel Island from the remainder of Richmond's Downtown. The canal remains in place because the locks at Great Shiplock Park are closed. This portion of the canal was historically used for shipbuilding and is currently used for canal boat tours. Richmond Intermediate Terminal has seen some use as a concert venue, however it sits in a largely abandoned industrial area. With the proposed construction of a maritime museum at Great Shiplock Park, and an active local interest in the maritime history of Richmond, the Kanawha Canal seems an opportune location for historic boats to be displayed. A continuous boardwalk should be located along Kanawha Canal from 18th Street to Great Shiplock Park to provide access to historic boats docked in the canal. Fundraising has already begun to bring the USS Zuni, also known as the Tamaroa, to Richmond.

Extend and connect walking trails
The Virginia Capital Trail is a 54-mile trail that will link Williamsburg and Richmond, primarily along the Route 5 corridor. The trail enters Downtown Richmond through Rockett's Landing, staying along the river into Great Shiplock Park. From there, the Capital Trail will continue west along Dock Street, beside and then under the elevated train trestle, into the south side of the floodwall, terminating at the start of the Canal Walk at Dock and 17th Streets. Currently under construction, the portion in Downtown Richmond is scheduled for completion in 2009. The construction of the Capital Trail along the Kanawha Canal should be used as an opportunity to create a linear park to serve the residents of Shockoe Bottom. A linear park along the Capital Trail would help to provide increased access to the canal and river.

As the evolution of Downtown continues, there should be a continuous trail on the north bank of the James River, from Rockett's Landing to Tredegar Ironworks. The proposed River Trail would connect various open spaces along the riverfront. The mixed-use trail would allow pedestrians and bicyclists to travel the entire length of Richmond's Downtown along the riverfront. Starting from Rockett's Landing, the trail will follow the James River, then at Great Shiplock Park, leaving the Virginia Capital Trail, it will cross onto Chapel Island to a new boardwalk connected to the existing railroad truss at Pipeline Rapids, and terminate on Brown's Island. Existing trails to overlooks along the river should be used as connections back into the city, as well as loops for shorter distance walks.

Construct a pedestrian bridge over abandoned rail foundations
The abandoned rail foundations located immediately upstream of the Manchester Bridge should be improved to create a pedestrian connection all the way across the James River. This new bridge would provide access from the trail system along the north bank of the James River and the Canal Walk to the proposed trail system along the Riverview Parkway and Miller's Creek along the south bank of the River. This bridge will open to



Improvements are made to increase pedestrian access to the Lee Bridge.

A large open area on Brown's Island is equipped for outdoor concerts.

10th Street is extended across the canal to a river overlook.

Pedestrian trails connect to the Canal Walk.

A pedestrian bridge is constructed over an abandoned rail bridge.

Improvements are made to increase the walkability of the Manchester Bridge.

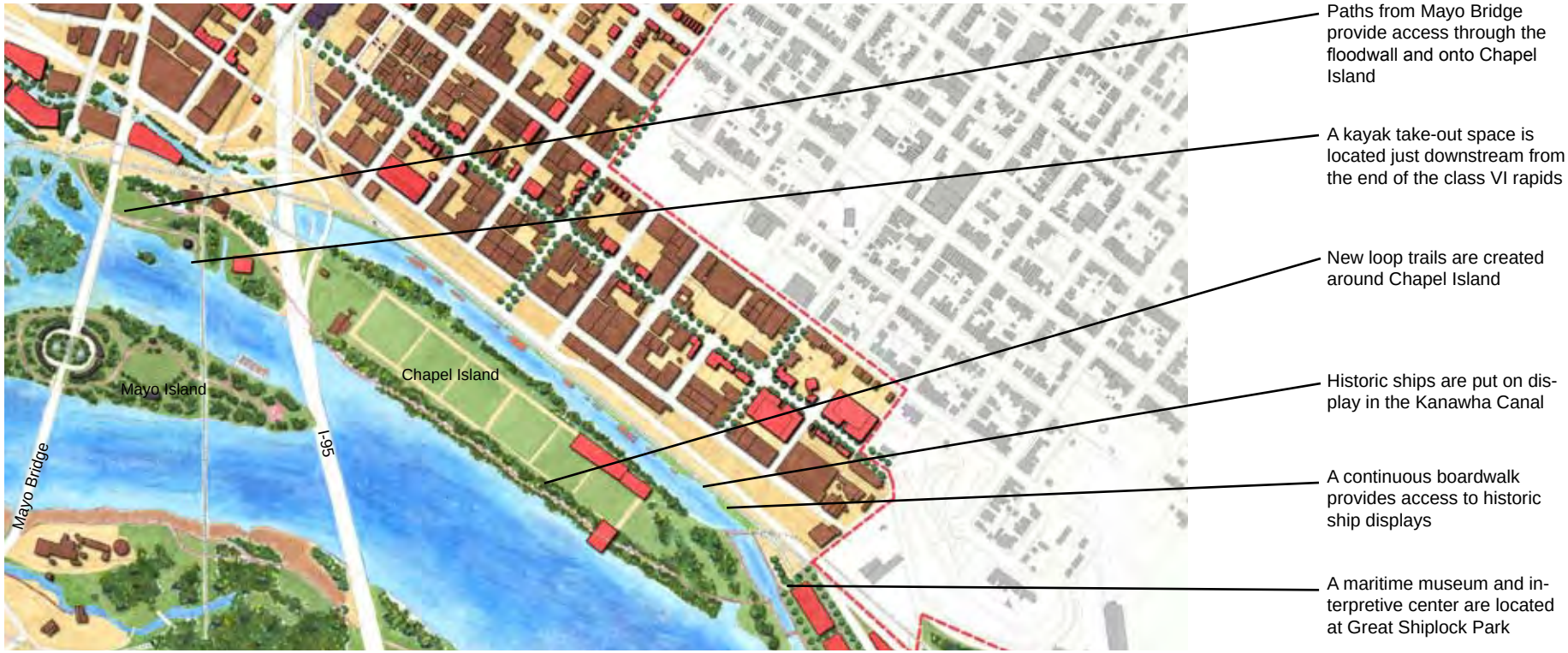
Belle Isle is preserved as a natural island.

public view some of the River's most scenic segments, including natural areas that are virtually unknown today.

Preserve Belle Isle and improve safety perceptions
Belle Isle, located in the middle of the James River, is maintained by the City of Richmond and local volunteers as a wilderness park. The park is accessed via a pedestrian bridge under the Lee Bridge. Visitors to the island enjoy hiking, mountain biking, walking, and swimming along the James River. A conservation plan should be crafted to prevent overuse from degrading the island's wild character and additional park employees should be added to improve the safety and upkeep of the area.

Create a linear park along Miller's Creek
Because warehouses and factories built in the past century were constructed with their backs to Miller's Creek, this historic canal has been largely forgotten. Currently, the trail leading from Hull Street to the trail atop the floodwall provides the only pedestrian access to the canal. As industry begins to move out of Manchester and the factories and warehouses lining the river are converted to other uses or demolished, the land on either side of Miller's Creek should be conserved as a linear park to provide pedestrian and bicycle connections from Riverview Parkway all the way to the Mayo Bridge.

Improve wayfinding and accessibility at Ancarrow's Landing
The Richmond Slave Trail is proposed to begin at Ancarrow's Landing, a location on the southern banks of the James River, downstream from Manchester. This trail will follow and highlight the historic journey that slaves were forced to make from Ancarrow's Landing, where they were



off-loaded from ships, along the banks of the James River through Manchester, across the Mayo Bridge, and to the 17th Street Market in Shockoe where they were traded and sold.

In order to make the slave trail accessible to residents and visitors, it is important that clear wayfinding and signage be provided to direct visitors to the trailhead at Ancarrow's Landing. Sufficient parking at the trailhead and a system of buses, trams, or ferries should be provided so that visitors can walk the entirety of the trail and have means to return to their cars once finished. Signage should direct visitors from the main streets of Manchester to the trailhead and the path, and interpretation and markers should be provided along the length of the trail to engage visitors in the depth and significance of the journey. Finally, connections should be made between the historic urban fabric of Manchester and the Slave Trail in order to create a dynamic and layered experience for visitors.

Improve walkability on Manchester Bridge

The Manchester Bridge currently has a 12-foot wide elevated walkway along its center. The walkway is difficult to access from either side of the river, reducing pedestrian use of the bridge. An easier pedestrian access to the Manchester Bridge should be created and a buffer between pedestrians and vehicles provided.

Rehabilitate Mayo Bridge to its historic character

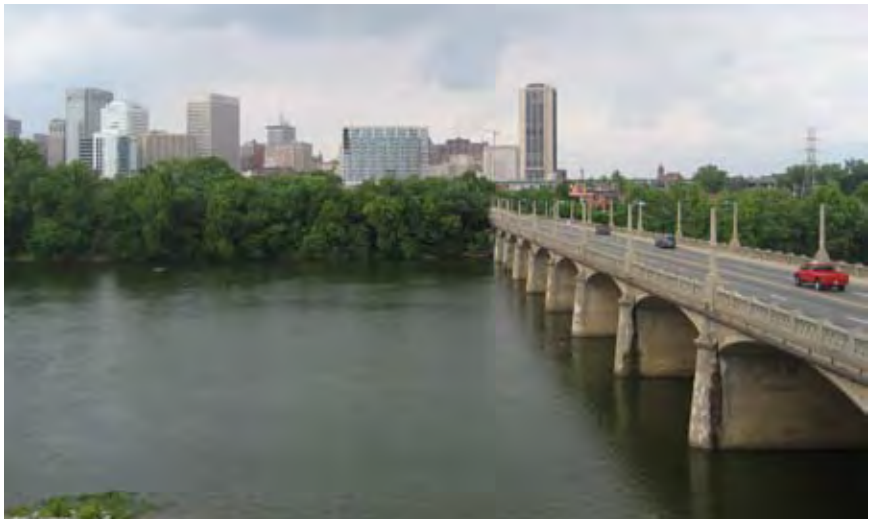
A bridge has stood at the location of the Mayo Bridge since 1788 when William Mayo built the first bridge to span the James River. The existing bridge was built in 1913 and was originally multi-modal, accommodating pedestrians, automobiles, and heavy streetcar traffic between Manchester and Downtown. The bridge is relatively low, 30' above water level, built at the grade of the land it connects. Because it is built at grade, the bridge makes seamless connections with Manchester, Mayo Island, and Shockoe. Its low height also means that it is closer to the water than other, more modern, Richmond bridges, making it a popular fishing and walking path. The bridge is a valuable part of Richmond's culture not only because of its pedestrian qualities, but also for its architectural features. The bridge is renowned for its resemblance to the Pont Neuf in Paris. Its low, diamond cut-out railings and the memorable obelisks all lend Mayo Bridge an elegance that is shared with every pedestrian and driver who crosses the James River. For all of these reasons, the bridge is listed on the National Register for Historic Places as part of the Manchester Industrial Historic District.

Mayo Bridge should be rehabilitated to its historic character, while accommodating pedestrian, vehicular and streetcar uses.

Mayo Bridge is currently in need of repair. The Federal Highway Administration has determined that the bridge is in "poor" structural condition. It is essential that the existing bridge be restored instead of rebuilt. A new bridge would probably be required to be taller, wider, and built of ordinary materials, in keeping with contemporary structural requirements and flood zones. It would likely look much like Richmond's newest bridge, the far less memorable Manchester Bridge. The increased height would complicate connections between the bridge and land, making the bridge and both sides of the city less walkable than they are today. This would eliminate any possibility for an accessible park on Mayo Island and would end the practice of fishing along the bridge. It would virtually prohibit a multi-modal future for the bridge, as the height of the bridge would complicate streetcar tracks. The cost of building a modern bridge would likely greatly exceed the costs of rehabilitating the historic structure.

Mayo Bridge should be restored to its historic character, in order to preserve a well-loved architectural feature of Downtown. This bridge is currently the centerpiece of community-supported plans for the James River, Richmond's park system, transportation system, and Downtown neighborhoods. The successful extension of the Richmond streetcar to Manchester hinges upon the restoration of Mayo Bridge. The transformation of Mayo Island into a central public park cannot occur without the restoration of Mayo Bridge. The establishment of a comfortable pedestrian linkage between Downtown and Manchester also depends upon the restoration of the Mayo Bridge.

A historic bridge restoration project of this scale will require a staging area. As a part of the restoration project, Mayo Island could be purchased for staging, to later become a celebrated riverfront park. Other steps for ensuring the restoration of Mayo Bridge include securing federal and state grants, through programs such as the Federal Transportation Enhancements Program.

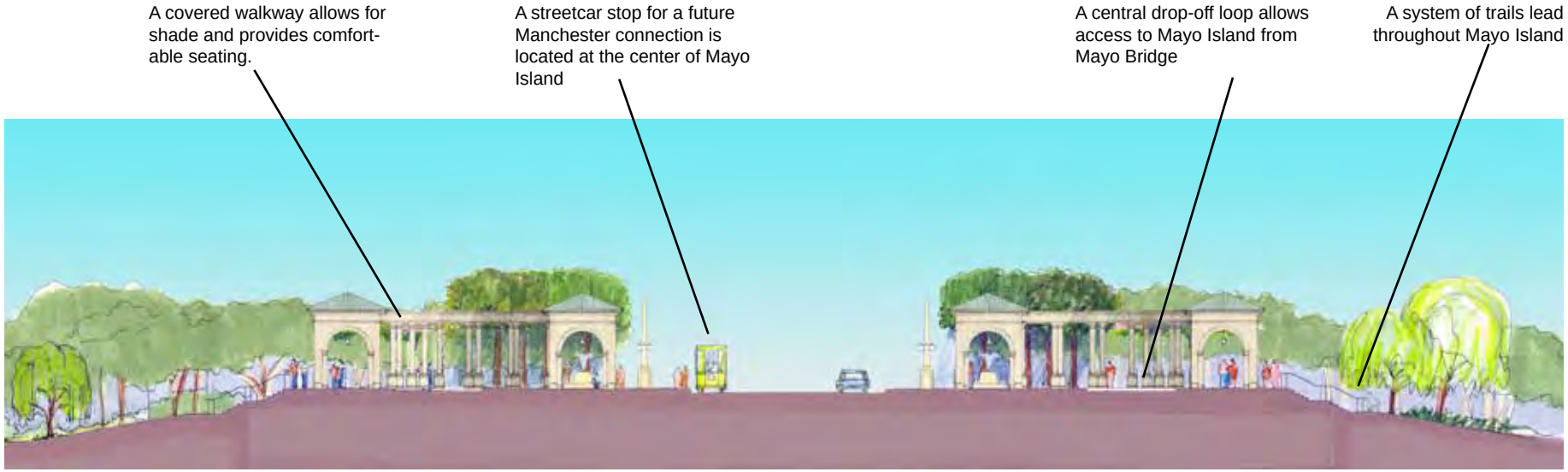


The Mayo Bridge provides an elegant connection between Manchester and Downtown.

Establish Mayo Island as a premiere public park
Located in the middle of the James River and connected to both City Center and Manchester by the Mayo Bridge, Mayo Island was once a beloved park. This park contained a minor league baseball stadium, two boathouses, and open green space for public enjoyment. Today Mayo Island is for the most part inaccessible to the public. Several industrial buildings are located on the island, and portions of the property are used as a recycling facility and a parking lot. Much of the island has been allowed to grow wild. The island is located in the floodplain and occasionally experiences instances of flooding as the river rises.

Mayo Island should be transitioned from a private island to a vibrant public space. The island should be enhanced as a focal point for the city, connecting Downtown Richmond to Manchester. A central drop-off loop would allow access to the island from the Mayo Bridge, and a streetcar stop could be located at the center of the island. This drop-off could connect to a system of trails that lead throughout the island, with access to forests and open space, river overlooks, a pavilion, amphitheater, and small boat launch. The City should begin negotiations with the property owners as soon as possible and should purchase the island at fair market value.

If Mayo Island is not acquired by the City for public use, any redevelopment of the island should include significant public open space components. This should include public space along 14th Street and around the entire perimeter of the island, maximizing views and allowing for public access to the James River. Any uses associated with redevelopment on the island should encourage activity and support the pedestrian environment along the Mayo Bridge. This would include buildings of smaller heights (2 to 3 stories) adjacent to the bridge, with heights stepping back as buildings develop outward from the street (5 stories in the second tier buildings and 10 stories in the third).



Cross-section of Mayo Island

Mayo Island Park Scenario

A system of trails lead throughout Mayo Island

River overlooks provide additional access to the river

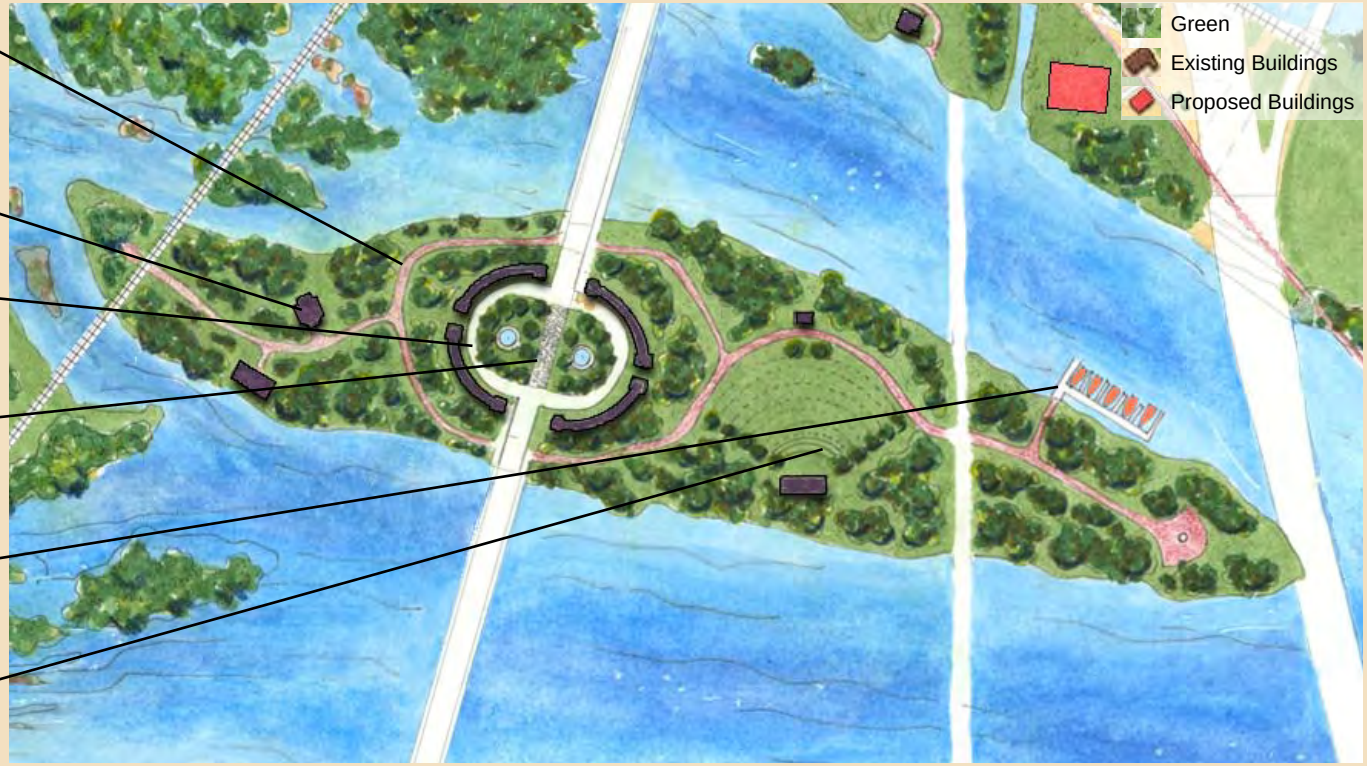
A pavilion can be used for picnics and outdoor events

A central drop-off loop allows access to Mayo Island from Mayo Bridge

A streetcar stop for a future Manchester connection is located at the center of Mayo Island

A small launch allow for recreational boating in the James River.

An amphitheater provides additional outdoor entertainment options along the James River



Mayo Island can become Richmond's premiere public park, incorporating passive open space, recreational uses, and a continuous public waterfront.

Character map depicting the park scenario for Mayo Island.

Mayo Island Redevelopment Scenario

The tips of the island are reserved for public open space

Development is concentrated at the center of the island

A continuous waterfront path encircles Mayo Island

A small launch allow for recreational boating in the James River.

An alternative plan for Mayo Island includes development at the center of the island, with the edges of the island reserved for public open space. The image above is included for illustrative purposes only, and does not represent an actual development on Mayo Island.

Character map depicting the redevelopment scenario for Mayo Island.

SHOCKOE

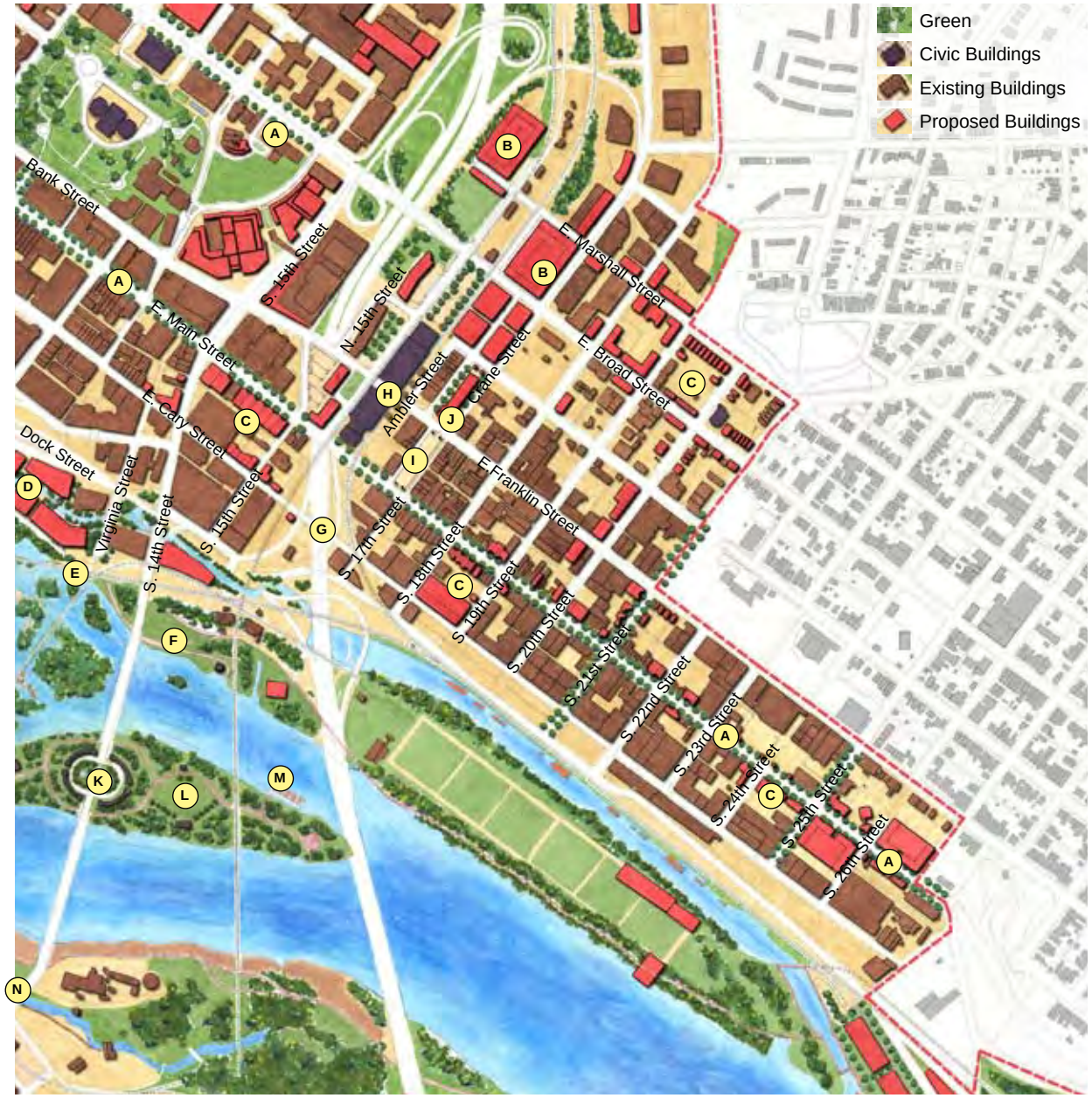
Shockoe is Richmond's original manufacturing center, located at the fall line of the James River. It is comprised of two distinct neighborhoods located on either side of Shockoe Creek – Shockoe Slip and Shockoe Bottom. The area was officially platted in 1737 to accommodate the demand for tobacco warehouses along the James River in the wake of the Warehouse Act. The district served as a center of commerce and trade for over three centuries, dealing in tobacco, iron, flour, and most notoriously, slaves. As such, it carries the legacy of bustling commerce and gritty industry. Over the years, however, the character of the district has adapted to changes in transportation and trade. By the 1970s, Shockoe Slip began to evolve from a manufacturing center into an entertainment district. Shockoe Bottom's low elevation prevented the same scale of investment, yet it began to be redeveloped in the 1990s after the floodwall was built.

Today, Shockoe has reclaimed its place as one of Downtown's most lively districts. Shockoe's urban fabric is among the best preserved in the city, with two to six-story brick buildings defining the streets. The urban fabric of the district is ideal for pedestrians, with small blocks and intimate cobblestone streets. Many of the abandoned brick warehouses have been preserved and redeveloped as housing, shops, restaurants, and offices.

Furthermore, important historic sites such as the 1909 Fountain, 17th Street Farmers' Market and Main Street Station continue to contribute to the cultural vibrancy of the area.

Shockoe Slip has enjoyed continued success as an upscale residential, office and entertainment district within Downtown Richmond. A strong business association has assured that streets and sidewalks are maintained and that businesses appeal to residents and visitors. The Slip would benefit from a street tree campaign throughout, as has been implemented on Cary Street, and the City should require all new development to respect the scale and character of the existing urban fabric. A shared parking system would ease parking conflicts in Shockoe and allow business owners to expand without concerns for providing on-site parking. (For more information please see Chapter 5 – Transportation Analysis). In recent years, local business owners worked together to create a valet parking service. The valet service helped to foster shared parking by using office spaces at night. The service was successful for the businesses, yet it was discontinued. Valet parking in Shockoe Slip should be reconsidered.

Shockoe Bottom, on the other hand, faces a number of challenges to becoming a vibrant neighborhood. Much of the area is characterized by vacant lots and surface parking lots. Many historic buildings are neglected or empty. Streets and sidewalks are in poor condition and are badly lit, discouraging pedestrian use. Shockoe Bottom's evolution as a mixed-use entertainment district has involved growing pains, such as residential/entertainment conflicts, a shortage of secure, affordable parking, and perceptions of crime. It is important that the historic character of Shockoe Bottom be preserved. This can be encouraged through the designation of a local Old and Historic District or design overlay district.



General Recommendations

- (A) Street trees to create desirable addresses and enhance the pedestrian environment
- (B) Parking garage to provide needed parking, lined with habitable spaces to create a pedestrian-friendly street frontage
- (C) Infill buildings that create a continuous street frontage and respect the character of the neighborhood with similar massing and architectural elements
- (D) Buildings along Canal Walk
- (E) James River outlook
- (F) Riverfront Park
- (G) Cathedral Walk
- (H) Main Street Station renovation
- (I) New market plaza
- (J) Historic farmers' market restored
- (K) Trolley stop
- (L) Amphitheater
- (M) Small boat launch
- (N) Richmond Slave Trail

Cary Street in Shockoe Slip is the right model for character, economics and walkability. This success must be expanded to the larger surroundings.

Broken and overgrown sidewalks in Shockoe impede pedestrian activity.

Clean up overhead utility lines
Removing the clutter of overhead utility lines and equipment from the visible public right-of-way will enhance the streetscape in Shockoe. This can be achieved by burying utility lines, requiring utility boxes to be located off the public right-of-way, and ensuring that utility companies maintain their rights-of-way.

Require compatible infill
It is important that the vacant lots and parking lots in Shockoe be developed responsibly, in a manner that enhances and reinforces the district's historic, urban character. Surface parking lots should be targeted for development, particularly the lot at the corner of 18th and Main Streets that serves as an entrance to Shockoe Bottom from Downtown. East Broad Street through the Shockoe Valley, from I-95 to 21st Street, serves as a gateway to Downtown and an important linkage to Church Hill. Infill development with streetscape improvements can transform this portion of district currently characterized by sporadic development and vacant lots.

Ease the parking burden
Parking is a key challenge in both Shockoe Slip and Shockoe Bottom today, and it is critical that this problem be tackled in a holistic manner, focusing on both the causes of the problem as well as solutions. First, increased pedestrian connectivity and an improved transit system would reduce the demand for parking in the district; therefore these options should be carefully integrated into any parking plan. Second, on-street parking is a resource that should be maximized throughout the district. Once these options are accounted for, the City should consider an integrated system of clearly marked, affordable, and conveniently located parking garages. These parking garages should be placed at the interior of the block, and lined with shops, offices and apartments. Shared parking would be an appropriate solution for this 24-hour district. To assist with a shared parking strategy, valet parking should be reconsidered.

Improve stormwater management
The catastrophic flooding during Tropical Storm Gaston in 2004 has left many people wary of investing in Shockoe Bottom. The revised FEMA maps, dated April 2, 2009, include Main Street Station and approximately 60 acres of property currently located behind (or upstream to the north)

of the floodwall in a new expanded flood plain. Inclusion of property within the new 100-year flood plain severely limits new development and re-development of existing buildings without innovative engineering solutions that provide appropriate building "floodproofing" protection and emergency access in accordance with City and Federal guidelines.

Recent projects by the City have improved the drainage and floodwall system for a specific sub-100 year storm event. The City should continue its efforts to improve the storm water management throughout Shockoe Bottom and in the upper watershed by encouraging innovative private and public solutions (coordinated with the City's Department of Public Utilities) that complement the work already done by the City.

Enhance the pedestrian realm

A key element in improving the pedestrian experience in the Bottom is to provide comfortable, clean, and safe streets. The brick sidewalks that exist today should be restored, maintained, and where possible, widened. Existing concrete sidewalks should be replaced with brick, where possible and in conjunction with new private development. Street trees should be planted regularly along the edge of the sidewalk at no more than 30' apart. Historic, pedestrian-scaled lighting and signage should be installed along all streets to enhance the safety and character of the district. Strategically placed trash cans and regular street cleanings will help to keep litter off the streets, enhancing the beauty and cleanliness of the area. The Cary Street corridor between 15th and 19th Streets should be considered a primary candidate for these types of improvements, as it serves as a critical linkage between Shockoe Slip and Shockoe Bottom. Another critical area for improvement is Virginia Street, between Cary and Canal Streets, which should have wider sidewalks, street trees, and wayfinding signage. A secondary priority should be both sides of Main Street from 17th to 20th Streets.

Improving safety in the Bottom will ultimately enhance its walkability by making pedestrians feel comfortable. Safety can be improved by increasing police surveillance, installing appropriate street lighting, and relocating dumpsters and other impediments that create dark corners along streets.

Increase code enforcement

Enforcing maintenance standards for private property owners will enhance the character of the district. Owners should be required to provide better

Broad Street Improvements

Broad Street – Existing

Intersection of Broad Street and North 17th Street, looking west towards Downtown. This portion of Broad Street feels cut off from the activity of Downtown, due to its vacant lots, surface parking, chain link fences, and badly maintained sidewalks. Furthermore, the elevated railroad line and the interstate highway crossing Broad Street create a visual and physical barrier to the activity beyond. Although this area is within convenient walking distance of the city center, the existing conditions of the street discourage pedestrian activity.

Broad Street – Public Works Improvements

Pedestrians are welcomed back to Broad Street by improved infrastructure. The cracked and uneven sidewalk is upgraded with distinctive pavers, street trees, and special lighting that create a sense of destination and increase pedestrian comfort. Traffic is controlled with narrower lanes and bold crosswalks that give prominence to pedestrians.

Broad Street – Private Investment

Broad Street will be more successful if a mix of neighborhood convenience shopping and shopping by visitors is accommodated in the area. This will allow Downtown residents to live comfortably and accomplish errands close to home, while regional shoppers will support more variety in destination boutiques and unique restaurants. To promote this the merchants association should provide technical assistance to businesses and landlords and coordinate joint advertising and events.

fencing, screen their industrial yards and outdoor storage, and maintain their buildings, particularly if vacant.

Create a new market plaza and rebuild the historic 17th Street Farmers' Market

The 17th Street Farmers' Market is one of the oldest markets in the United States, and has served as an essential center of trade since Richmond's founding. The market was a center for trade in produce, livestock, and flour. The existing Farmers' Market on Main Street is a modern, unremarkable structure that is located one block south of the original Farmers' Market. While it remains a popular destination for locals and visitors, the Market is underutilized and inadequately laid-out for Market shopping, with limited sight lines for goods on display and barriers to multiple uses of the space.

The Farmers' Market became a significant destination for local residents and visitors. According to public market expert Ted Spitzer, one way to improve the market's operation is to transition from public to non-profit management. This would eventually have the added benefit of eliminating public subsidy from the market. The Farmers' Market should also be viewed as an integral part of a community cultural district that encompasses Main Street Station, the Richmond Slave Trail, the African American Heritage Center, and Shockoe Creek Park.

While changes in management could improve the Market's performance, the design and location of the building should be reconsidered to better accommodate venders and shoppers. The Farmers' Market could be built on a site one block north of the existing building. The historic market was a long open-air pavilion supported by a colonnade and protected with a gable roof. The re-creation of this building would not only enhance the cultural experience of Shockoe Bottom, but would also provide a flexible, more efficient space for selling market goods. The site of the existing Farmers' Market could be reused as an open plaza that complements the restored Farmers' Market. This plaza could be used for overflow market uses, or for outdoor dining and community gatherings. The placement of a linear plaza in front of the Farmers' Market will increase its visibility from Main Street and will improve accessibility for shoppers.

The historic 17th Street Farmers' Market continues to serve the Richmond population. This landmark should be restored and celebrated as a community centerpiece.

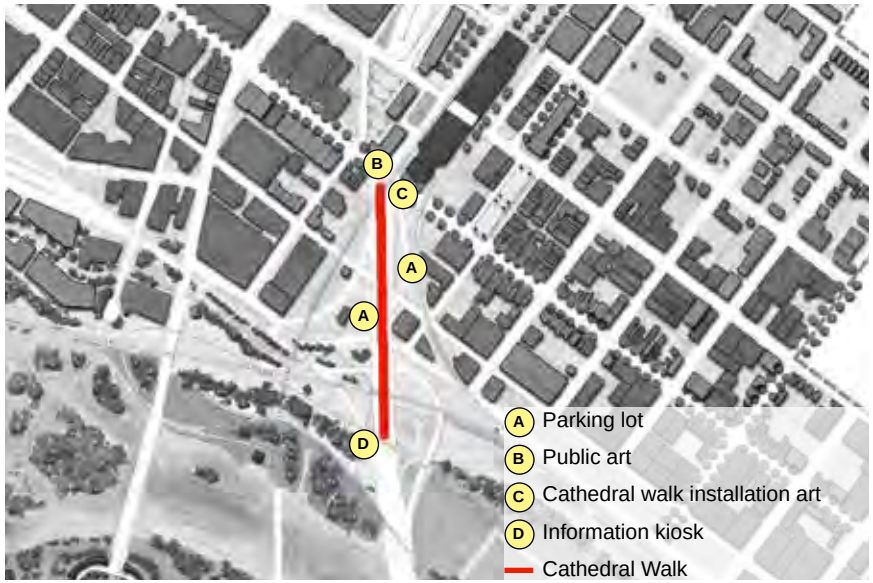
First Market House etching, published in "Harper's Weekly" August, 1865.

Integrate the Richmond Slave Trail into Shockoe Bottom's urban fabric

Through much of the 18th and 19th centuries, Richmond was a center of the slave trade. Most slaves arrived by boat on the southern bank of the James River, and were forced to walk across the Mayo Bridge and into Shockoe Bottom where they were sold at the market. Hundreds of slaves were buried in a mass grave just north of Broad Street. This important part of Richmond's history has never been fully presented to the public, and physical spaces where the slave trade once took place lay unmarked and virtually silent.

Today, an interpretive Slave Trail is being built, with the goal of recognizing and communicating the dreadfulness of the slave trade in Richmond. The trail chronicles the history of the trade of enslaved Africans from Africa to Virginia until 1775, and away from Virginia, to other locations in the Americas until 1865. The trail begins at Manchester Docks, which with Rockett's Landing on the north side of the river was a major port in the massive downriver slave trade, making Richmond the largest source of enslaved Africans on the east coast of America from 1830 to 1860. It follows a route traveled by some of the thousands of Africans who made their journey south by crossing the James River chained together in a coffle, or by getting on ships to New Orleans. The trail follows a route through the slave markets of Richmond, beside the newly-dedicated Reconciliation Statue commemorating the international triangular slave trade, past Lumpkin's Slave Jail and the Negro Burial Ground, to First African Baptist Church, a center of African American life in pre-Civil War Richmond.

As additional information is gathered regarding the extent of historic sites, including Lumpkin's Jail and others associated with the slave trade, on and adjacent to the Main Street Station property, impacts of any proposed development on the historic site(s) should be carefully considered. Development that interprets the African American historical experience, such as a visitor center or viewing stations, is appropriate for the site.



The Cathedral Walk will provide connections between the Canal Walk and the riverfront trails and Main Street Station.

Connect Cathedral Plaza to Canal Walk and Virginia Capital Trail
Shockoe Bottom is bound by the north-south elevated ramps of I-95. These ramps curve around the west and south sides of Main Street Station, creating a significant barrier between Main Street Station, the Farmers' Market, and the Canal Walk on the south side of the highway. While the land beneath the interstate has lain vacant for years, recently it has been targeted as an opportunity to provide new space for parking, while increasing connectivity in the district. The development of Shockoe Bottom as a center for cultural recreation, housing the Richmond Slave Trail, Main Street Station, and the 17th Street Farmers' Market, has created a need for convenient parking and thoughtful public space.

The Cathedral of Reconciliation, currently under construction, is intended to fulfill the diverse needs of Shockoe Bottom's cultural center. This plaza will be a pedestrian connection and a parking lot beneath the I-95/Downtown Expressway interchange, located on Main Street, directly south of Main Street Station. It will also be a showcase of public art, including a Statue of Reconciliation as part of the Richmond Slave Trail, as well as a dynamic lighting program that will up-light the columns of the interstate at night, creating the effect of being enclosed within an "outdoor cathedral."

While this public plaza will provide needed parking for Shockoe Bottom, its current layout will do little to improve connectivity in the district. Currently the plaza is separated from the Canal Walk and the end of the Capital Trail by a US Army Corps of Engineers pump house and a series of parking lots. In order to provide a much-needed connection between Shockoe Bottom and these waterfront trails, the City should reclaim the parking lots that separate the plaza from the pedestrian trails through the south via a series of walkways, plazas and crosswalks. Traffic calming devices such as cobblestone paving should be installed along Dock Street to ensure safe pedestrian crossing to the Canal Walk. The city should also consider incorporating a small retail site, visitor's center, or cultural marker on the south end of the Cathedral of Reconciliation plaza in order to increase pedestrian traffic through the plaza and improve safety.

Replace the "missing teeth" along Main Street
Although Shockoe Slip is a well-established residential, entertainment, and business district, its frontage along Main Street contains some vacant lots and an inconsistent building frontage. This is particularly true between 14th and 15th Streets. It is essential that these new infill buildings are created in the scale and character of the renovated brick warehouses and storefronts in Shockoe Slip. Similarly, in Shockoe Bottom between 18th and 19th Streets and intermittently along Main Street toward the east, appropriately-scaled infill development will be critical toward enhancing this important corridor.

Use traffic calming measures and convert one-way streets to two-way
Controlling traffic speeds in the district will increase pedestrian comfort and will allow vibrant street life to develop. Traffic speeds can be lowered by better defining the streets with closely-spaced street trees, and by restoring the cobblestone streets, particularly those on Oliver Hill Way, Cary Street (across 14th Street east to 18th Street initially), 17th Street, Grace Street, Marshall Street, and 18th Street. Pedestrian comfort can also be enhanced by marking clear, generous crosswalks. Bringing back

two-way traffic to Shockoe's Streets will improve access to area businesses, simplify way-finding, slow traffic, and create a more comfortable pedestrian environment. Access can also be improved to the Canal Walk area by reopening Byrd Street between Virginia and 12th Streets.

Create new connections between Shockoe Bottom & the waterfront

Currently there is very little physical or visual connection between Shockoe Bottom and the waterfront. The construction of the Capital Trail along the James River through Downtown Richmond has increased the desire for on-street pedestrian connections to the riverfront. A number of streets have been identified as important pedestrian connections, including 21st Street, 25th Street, and Pear Street.

Distinctive streetscape improvements could create clear pedestrian connections to the riverfront. The City should plant closely-spaced street trees, provide distinct paving (or simply uncover the historic cobblestones under the street), and coordinate street furniture such as benches, trash cans, and pedestrian lighting that will signal a special pedestrian connection to the Capital Trail and riverfront.

Shockoe Bottom is also effectively cut off from the canal and Canal Walk due to elevated railroad lines and a two-block barrier of parking lots along the Canal. This is particularly evident at 17th Street, where the Canal Walk terminates at a large parking lot. This parking lot discourages pedestrians from continuing their walk into Shockoe Bottom and the greater Downtown, and is a lost opportunity for connectivity in Shockoe Bottom.

The parking lot at 17th and Dock Streets should be developed into a plaza, creating a clear pedestrian connection from the Canal Walk up to the 17th Street Farmers' Market. This plaza can also become a pedestrian entrance to Chapel Island, by creating a connection through the existing pedestrian portals in the flood wall to a new pedestrian bridge over the railroad tracks and canal.

Shockoe is host to many local businesses, giving the neighborhood a unique flavor.

The historic architecture of Shockoe reflects its mercantile past.

In recent years, outdoor dining has become popular in Shockoe.

transportation analysis 5

Figure 1. Downtown Richmond Street Network

During the July 2007 design charrette, transportation engineers from Hall Planning & Engineering (HPE) worked closely with the design team to create a strategy for transforming Downtown Richmond into a walkable destination that balances of the needs of pedestrians with those of bicyclists, motorists, and transit operators. During the charrette, HPE interviewed stakeholders such as City Public Works and Community Development staff, citizens and community groups to identify transportation and walkability issues. HPE combined these personal interviews with first-hand analysis of the Downtown transportation context. The team studied Downtown street designs and analyzed their impact on driver, pedestrian, bicyclist, and transit rider behavior. HPE then used this first-hand analysis to inform the reestablishment of a more balanced, multi-modal transportation system Downtown. HPE's recommendations are focused on improving walkability and providing multi-modal transportation options for Downtown residents, workers, and visitors. Emphasis is placed on the needs of pedestrians, bicyclists and transit riders in order to supplement existing transportation planning practices in Richmond and throughout the United States, which focus on automobile needs.

The Transportation Report for Downtown Richmond was prepared by Hall Planning & Engineering in November 2007. The following is a summary of the report; a complete version of the analysis is available at the City's Community Development Department.

The Transportation Challenge

Richmond has a long legacy of walkable streets and multi-modal transportation. In the 20th century, however, the rise of the automobile and changing settlement patterns have weakened the historically multi-modal transportation networks Downtown. Across the country, transportation planning and engineering has been given priority over land-use planning, resulting in streets that are at odds with the businesses and residences that front them. The results of these national trends are: street designs that are controlled by projected vehicle speeds, rather than used to control traffic speeds; streets that have been redesigned based on vehicle capacity and speed rather than on pedestrian needs; and two-way streets that have been converted to one-way, encouraging increased traffic speeds and requiring excessive circulation patterns for drivers, bicyclists and transit alike.

In Richmond, street car lines have been removed from the streets and replaced with a complex regional bus system, leaving Downtown without a reliable and efficient circulator system. A lack of clearly identified bike routes Downtown has forced bicyclist to ride dangerously on unmarked lanes and has frustrated uninformed drivers. Finally, cheap and abundant off-street parking has given residents, workers, and visitors little incentive to pursue alternatives to the automobile. Each of these challenges was addressed by HPE in an attempt to provide a safe, efficient and enjoyable system that meets the needs of all modes of transportation. It should be noted that implementing recommendations within this plan to improve transportation conditions for one user group such as pedestrians will impact the transportation conditions of other user groups such as motorists and transit riders. Therefore, each of the recommendations in the plan should be carefully reviewed with the public and phased to allow for a smooth transition prior to implementation.

The team identified the following transportation priorities for Downtown Richmond:

1. Tailor streets to respond to land use and context
2. Control traffic speeds through design
3. Prioritize pedestrian needs on Downtown streets
4. Return one-way streets to two-way operation
5. Provide efficient, reliable transit Downtown
6. Create designated bike routes on Downtown streets
7. Balance parking supply and demand

These priorities will be discussed in detail in the following pages; implementation steps are presented at the end of the chapter.

Broad Street looking east towards Downtown

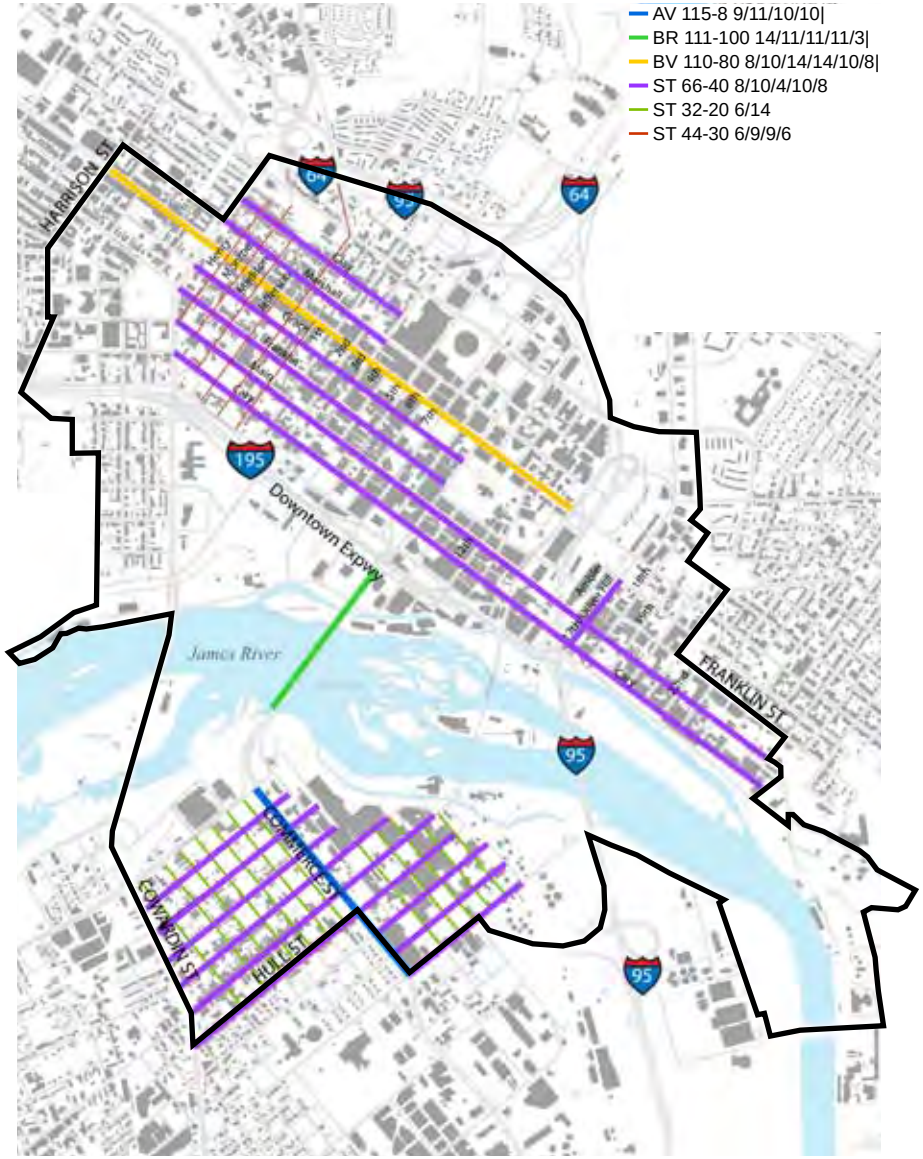


Figure 1. Thoroughfare Assignment Plan for Downtown Richmond

1. Tailor streets to respond to land use and context

Much of America's development in recent years has been dictated by one purpose: accommodating the automobile. Everything from street and block form to building design is dictated by vehicular needs, from high speed highways to parking garages.

In order to better integrate transportation with its context, the patterns of proposed development must be specified during the planning stage. Once the character of the proposed community has been determined, transportation plans for balanced mobility can be crafted with walkability considered first and vehicle mobility second. This is not to imply that motor vehicle mobility will be dramatically reduced, but rather that pedestrians are more vulnerable on the public street, and solutions for their comfort are more complex. Often, greater walkability yields only small reductions in vehicle capacity, even though vehicle speeds are lower.

Downtown Richmond has retained much of its historic grid, however some streets have been widened, intersections have been modified, and many of Downtown's two-way streets have been converted to one-way operation. These modifications encourage high vehicular speeds, complicate local travel patterns, and reduce the walkability of the area. These modifications serve to allow speedy access into and out of the Downtown area, essentially emptying the Downtown at 5:00 p.m.each weekday.

The vision for Downtown Richmond, as described by the community and refined by the design team during the charrette, is a return to the walkable city structure of the early 1900s. Downtown residences, places to shop and find entertainment, and workplaces are all components found in a walkable downtown. This urban design vision informs the transportation design criteria for Downtown Richmond. The return to a walkable downtown requires managing traffic speeds to pedestrian-friendly levels and ensuring connectivity of the street system. To accomplish this vision, HPE recommends the use of walkable thoroughfares for specific sections of the study area. The location and design of the walkable thoroughfares are described in greater detail under priorty three, Prioritize pedestrian needs on Downtown streets.

2. Control traffic speeds through design

Standard traffic engineering practice requires roadway design to be based upon the function of the thoroughfare. This function changes as the context of the street changes. In rural areas, for instance, the function of a road is to move vehicles. In an urban environment, however, the function includes providing public space where multiple modes of transportation occur such as walking, bicycling and transit, as well as automobile travel. A neighborhood street has a very strong public space function and will include on-street parking, sidewalks, shorter curb radii and related features to manage traffic speeds and provide for safe pedestrian travel and sharing of the thoroughfare by all modes.

A critical design parameter for walkable thoroughfares is vehicle speed. The speed of automobile traffic directly affects the walkability of a street. If a pedestrian is hit by an automobile traveling at 40 mph or more, the odds are better than even that the pedestrian will be killed, and at 30 mph the odds are almost 40% that the pedestrian will be fatally injured. Pedestrians know this instinctively. In order to encourage pedestrian traffic along a street and create a comfortable public space, vehicle speeds must be set between 15 and 30 mph. Neighborhood streets that support community activity require very low design speeds of 15-20 mph. City Center streets, with the need for large truck movements, will have higher design speeds of 20-25 mph, due to the larger dimensions required to accommodate larger vehicles. Walkable thoroughfares designed for longer travel, such as boulevards or avenues, will have the highest design speeds of 30 to 35 mph. These faster thoroughfare types have reduced levels of walkability and must be used carefully.

Traffic volumes are of secondary or tertiary concern when designing a walkable thoroughfare system. The critical volume issue is the number of lanes required to accommodate peak hour traffic flow, usually estimated at 700-900 vehicles per hour (vph) per lane. Depending on local travel patterns (K and D factors,) these peak hour volumes generally equate to 7,000-9,000 vehicles per lane per day. Consequently, a two-lane street is considered sufficient to support up to 14,000-18,000 vehicles per day, again depending on local travel patterns and peaking characteristics.

Provided this general amount of capacity exists, walkable thoroughfare design does not use traffic volume as a primary design parameter, a departure from conventional traffic engineering practices. A reduced level of Service (LOS) can occur in walkable, Downtown situations, reflecting a balance between an improved pedestrian environment and reduced vehicle capacities and speeds. In actuality, the additional porosity of the thoroughfare network in a city such as Richmond allows a wide variety of routing choices during congested traffic periods, and the high levels of internal capture (trips from one land use, such as housing, captured by another land use, such as a grocery store) mitigate the traffic impacts of a downtown area to a much greater extent than possible in conventional suburban development. Traffic volume is therefore not used as a design parameter for travel lane width, for instance; instead, design speed is the overarching design parameter for thoroughfare design.

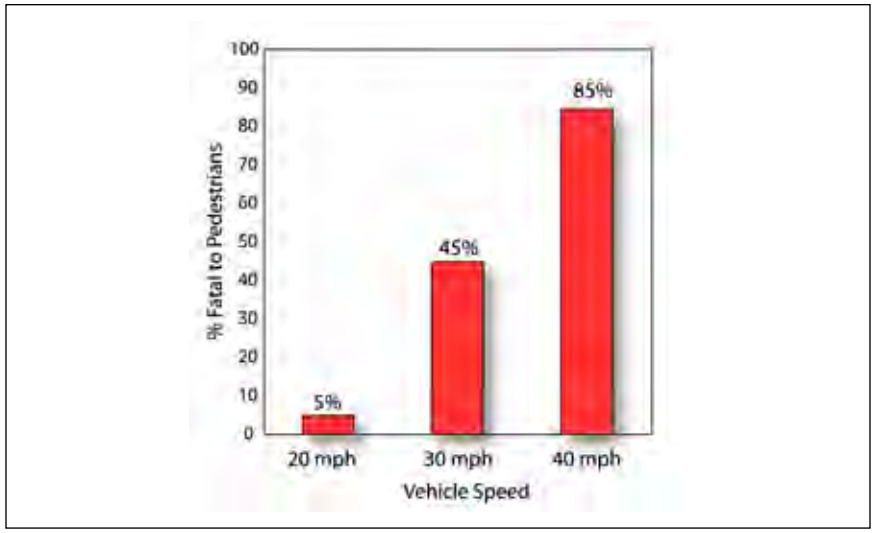


Figure 2: The Relationship Between Pedestrian Fatalities and Vehicle Speed.
Rudolph Limpert, Motor Vehicle Accident Reconstruction and Cause Analysis, 1994.

Design Speed Factors

Design speed is the most critical element of walkable thoroughfare design, and requires careful consideration. Lane width and curb radii play a key role in managing speed and reducing accidents in lower speed environments.[1] These elements are designed in response to the function and context of the roadway, which is defined by its spatial enclosure, block size, intersection arrangement, and level of pedestrian and automobile traffic, but these factors primarily set the context for the thoroughfare. The lane widths and curb radii are designed in response to the expected level of enclosure and intensity, not vice versa.

If the physical elements of the roadway are appropriate to its function and context, traffic speeds will be managed naturally, eliminating the need for redundant traffic calming devices such as speed humps, bulb-outs, and raised intersections. In fact, these traffic calming devices, when used on an appropriately designed urban thoroughfare system, can create access problems for utility and emergency services vehicles and should be avoided.

1 Residential Street Typology and Injury Accident Frequency, Peter Swift, P. E., Dan Painter, AICP, Matthew Goldstein; "Narrow Residential Streets: Do they really slow down speeds? James Daisa, P.E. and John Peers, P.E.

Typical Richmond One-way Street

Downtown Richmond Design Speeds

Applying these findings and principles to Richmond's street design, several things become clear. First, anything that contributes to higher vehicle speeds should be carefully considered and weighed against the goal of walkability. Second, the physical design of the street, with lane widths and curb radii the most critical elements, must be optimized to manage traffic speeds to appropriate levels. Third, the street must continue to function for the design vehicle appropriate to the context – typically an SU truck (such as a FedEx delivery truck) in general urban contexts, and a WB-50 tractor trailer in the town center context.

Conventional engineering practices evaluate a street network based upon its traffic capacity and speed rather than its balance of vehicular access and pedestrian comfort. If the street network is going to support Downtown in becoming a vibrant urban destination, pedestrian comfort must share equal priority with vehicular access. Any effort to improve vehicular movement should be carefully balanced with pedestrian needs. In all cases, the physical design of the street must be optimized to control traffic speed. The primary methods of controlling traffic speed in Downtown Richmond include reducing lane widths, examining curb radii, recovering the two-way street system, and adjusting traffic signal timing.

Lane width plays a primary role in managing traffic speed. The lane widths on primary streets (streets with 40' curb-to-curb dimensions) work against the goal of effective speed management. Even when 8' wide parallel parking lanes are placed on both sides of the street, the two remaining 12' travel lanes are highway-sized and with limited ability to control speeding. Therefore, it is essential that the travel lane width be reduced as far as practicable. Given the Downtown

context of these streets, 10' is the narrowest practicable lane width that can still accommodate the expected vehicle sizes.. Several methods of reducing to this travel lane width are illustrated in the Walkable Thoroughfare Standards. In addition, conversion of streets from one-way to two-way operation will manage traffic speeds.

Speeding can be attributed to a number of factors, including a one-way street pattern. This is logical, as the one-way streets are generally designed to move traffic quickly. These traffic patterns were often implemented across the country in the 1960's when planners believed that allowing unrestricted traffic access in and out of the downtown area would stem the decline of these districts. Today, many cities have found that the one-way systems have the opposite effect. The higher travel speeds and convoluted travel patterns required by these systems serve to reduce walkability and the overall attractiveness of the downtown areas. It it recommended that a majority of these one-way streets should be returned to two-way operation over time to encourage a vibrant Downtown in Richmond. Additional information on one-way streets, including the recommended phasing program for one-way street conversion, is found later in this chapter.

The timing of traffic signals in Downtown has also been designed to optimize traffic movement. According to information provided by the City's Public Works Department, the signals are timed to synchronize with traffic moving at 32 mph. Richmond's one-way streets operate, based on HPE's observations, near the posted 30 mph speed limit and in accordance with the 32 mph signal progression. This exceeds the maximum speed at which pedestrians feel comfortable. On the other hand, when synchronized traffic signals are set at 30 mph or less, some drivers may learn to "double" the signal – i.e., synchronization at 25 mph is also synchronization at 50 mph. These traffic signals will need to be adjusted to accommodate the new two-way traffic system and a slower travel speed. As traffic signals are replaced as part of the City's Capital Improvement Program, more complex signal systems should be installed to accommodate this type of synchronization. Throughout all of these adjustments, the street must continue to serve the largest vehicle appropriate to the context – typically a delivery truck or a tractor trailer.

On-street parking and trees soften the wide lanes and one-way operation of Clay Street.


Traffic signals control vehicle speed on Leigh Street, City Center.

Multi-modal activity on Cary Street, Carytown.

3. Prioritize pedestrian needs on Downtown Streets

Conventional zoning and engineering standards tend to be focused on maximizing vehicle capacity and speed, rather than the creation of attractive pedestrian environments. These are not mutually exclusive goals; however, in many cases, conventional traffic engineering has created streets that are difficult or uncomfortable to walk along. Street design standards, for instance, typically require large (20' or greater) curb radii and wide (11' or wider) travel lanes. On-street parking may be restricted in some instances. While these standards may be appropriate in suburban areas, the creation of highly walkable places requires alternate standards. The thoroughfare types described in this report are tailored for walkable neighborhoods and include narrow lane widths, on-street parking, and shorter curb radii.

Following the philosophy of Land Use First/Transportation Second, or LU-1/TR-2, the design team identified areas for redevelopment and created specific land use designs for these areas. Walkable thoroughfares were then created or adapted from existing street sections to serve these areas with more appropriate vehicle speeds. The vast majority of streets can be redesigned using the existing curb lines, but a few will require more extensive reconstruction. These modifications are described below for each walkable area.

The title of each thoroughfare describes its function and lane arrangement. The first two letters of the title indicate the thoroughfare type, such as ST – Street, AV – Avenue, or BV – Boulevard. The numbers in the title describe the width of the roadway and its parts. An ST 66-40 8/12/12/8, for instance, is a street with a 66' right-of-way and 40' of pavement, arranged with two 8' parking lanes and two 12' vehicle lanes. All street widths are measured curb-face to curb-face. This "curb face" convention matches the practice of traditional street designers and stems from the majority of urban streets having on-street parking. Street lanes without parking are still measured to the face of curb, including the gutter pan. This does not assume vehicles will routinely travel in the gutter; just that the convention is uniformly applied in traditional street design.

Some features, such as planting strips and sidewalks, are not indicated in the Thoroughfare titles and must be determined by viewing the actual street section diagram. Bike lanes are not included in most of the walkable thoroughfare sections, due to the target speed of the thoroughfares being 30 mph or less. At these speeds, bicyclists can safely share the lane with motorists and are expected to do so. Biking in Richmond is discussed in more detail in section 6 of this chapter. The Americans with Disabilities Act (ADA) standards must be followed in the implementation off all the walkable thoroughfares.

Core/Downtown Walkable Thoroughfares

New, walkable thoroughfare definitions should be adopted for the Downtown study area. Transportation design engineers will have greater professional guidance when implementing the thoroughfares if the City adopts the Walkable Thoroughfare Definitions, which will be included as the recommended code modifications for Richmond. Richmond's recommended walkable thoroughfares are described on the following pages. A thoroughfare assignment plan is included as Figure 3 indicating the recommended location for each of the following walkable thoroughfares.

Richmond's existing downtown streets have a typical 66' ROW and curb-to-curb width of 40' on the streets parallel to the river. Cross streets west of 1st Street are typically 44' ROW and 30' curb-to-curb. In the Downtown area, which is the most dense and intense urban context, these street widths are more than sufficient. Specific thoroughfares for the core/downtown area are proposed on the following pages.

Walkable Thoroughfares often include on-street parking, shade trees, and wide sidewalks.

BV 110-80 8/10/10/24/10/10/8

A Boulevard thoroughfare type is proposed for Broad Street. This type is the widest and most traffic-intensive of the walkable thoroughfare designs. Boulevards typically have 4 to 6 central travel lanes, traverse long distances, and in many cases, accommodate transit within the right-of-way. Managing traffic speeds on a boulevard can be difficult, so narrow lanes are usually recommended, along with short blocks and, if possible, use of traffic signals for speed management. As shown in Figure 3 the boulevard section for Broad Street includes an 8' parking lane and a 10' "sharrow" lane, and a 10' travel lane, mirrored around a 24' dedicated transit median, which can accommodate two 12' Bus Rapid Transit or Streetcar lanes. The outermost 10' lane, placed against the on-street parking, is designed to be a slower, mixed-traffic lane that will accommodate both cars and bicycles. This lane has "sharrow" markings that indicate the presence of bicyclists in the travel lane. Further discussion of sharrows is found in section 6. The 10' lanes will assist in reducing traffic speeds. In the center of the roadway, 24' of dedicated transit lanes will be located on a separated, dedicated median. These lanes can accommodate a Bus Rapid Transit system in the short term, and a streetcar line in the long-term. Transit stops can be located at the far side of the intersection on enclosed, elevated platforms adjacent to the median. These platforms will allow efficient pickup by allowing riders to pay in advance at the platform. ADA compliance is achieved by providing a ramp within the platform that will lead up to the bus level. The dedicated transit median will taper away from the intersection to allow on-street parking throughout the block.

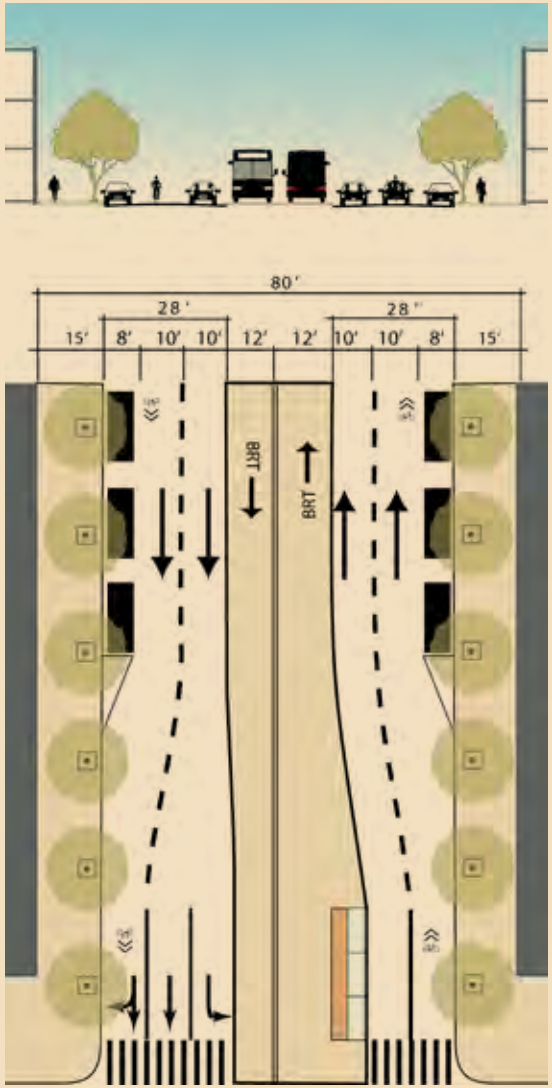


Figure 3. Proposed section for Broad Street

ST 66-40 8/10/4/10/8

The Downtown streets parallel to the River typically have a 66' right-of-way (ROW) and curb-to-curb width of 40'. This section provides ample sidewalk space, but is somewhat wide for effective speed management. An 8/12/12/8 arrangement, with two 8' parking lanes and two 12' travel lanes, would allow traffic speeds to be higher than desirable for good walkability. The proposed section has two 8' parking lanes, two 10' travel lanes, and a 4' "safety strip"/flush median between the travel lanes. The safety strip should be of a cobbled texture, making it possible, but uncomfortable, to drive over. In operation, the narrow 10' travel lanes provide speed management by keeping drivers close to the parked cars, but the safety strip provides room to carefully pass a parking vehicle or a bicyclist, or for emergency vehicle access. This section is shown in Figure 4.

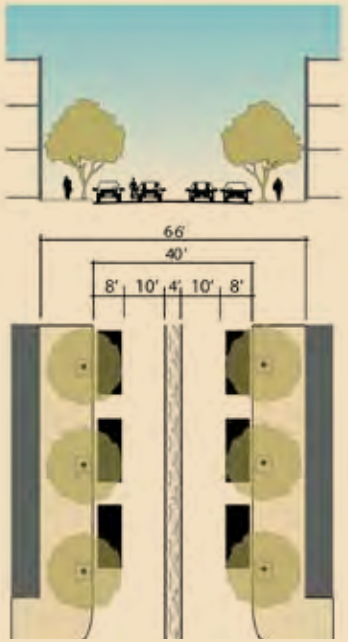


Figure 4. Typical section for an urban street (Two-way travel)

ST 44-30 6/9/9/6

West of 1st Street the cross streets have a 44' right-of-way and a 30' pavement width. Currently, most of these streets are one-way, with parking on one or both sides. The proposed section for most of these streets uses the same right-of-way and pavement width, but returns the streets to two-way operation. The proposed section has 6' parking lanes and two 9' travel lanes on each side. This arrangement will provide more convenient circulation and will manage traffic speeds to a walkable level. The typical section is shown in Figure 5.

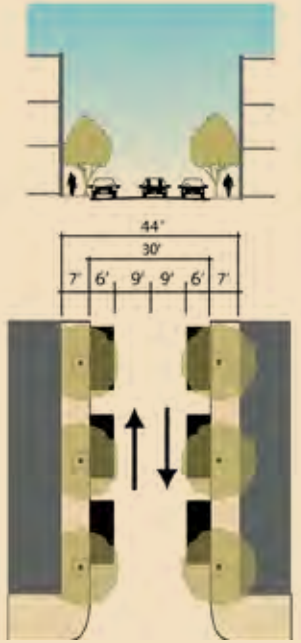


Figure 5. Slow street for urban areas

Manchester Walkable Thoroughfares

The design proposal for Manchester involves revitalizing the district by increasing the intensity of the neighborhood center areas using appropriately scaled new development and infill. The streets in these areas will carry primarily local traffic at relatively low volumes, with the exception of Commerce and Hull Streets. The local, neighborhood roadways in Manchester call for narrow streets to manage traffic speeds and encourage pedestrians.

HPE found that most streets in this area have either a 20' or 40' pavement width (in fact, the same 66' ROW/40' pavement section found north of the River.) The 20' wide streets are optimal for this location, but the width of the 40' streets encourages speeding. If the area redevelops as planned, additional traffic on these streets will only increase the impact of the faster speeds.

Manchester's 40' streets are designated with the same ST 66-40 8/10/4/10/8 section as the City Center area. This street section allows for the addition of a street car track, at some point in the future, if residents desire this transportation option. Sections are provided for Commerce Street and the 20' pavement width streets, described on the following pages.

Two-way yield street in a Richmond neighborhood.

ST 32-20 6/14

These narrow streets run perpendicular to the 40' streets and generally front the side of the block. The streets are currently one-way, requiring excessive vehicle circulation. The proposed retrofit has a 6' parking lane and a 14' yield lane, allowing travel in both directions. The parking lane should be striped or signed, and should swap sides from one block to the next. This will create a natural "chicane" pattern to help manage traffic speeds. This section does not provide room for street trees, which are normally included on all walkable thoroughfares. The narrow ROW and side-fronting lots preclude trees in the public ROW; they may be provided in the private ROW if desired. This section is shown in Figure 6.

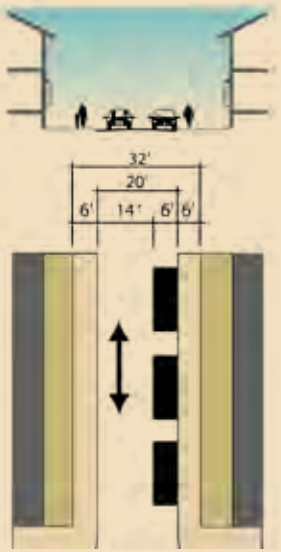


Figure 6. Yield Street

AV 115-80 9/11/10/10/10/10/11/9

Commerce Street divides the east and west portions of the Manchester study area. The street has the capacity of a highway, with six lanes that are 12 feet wide, however it serves very little traffic. Typically HPE would recommend a reduction in lanes for such a wide and underutilized road. In this case, however, they do not because the portions of Commerce Road directly north and south of the study area are six lanes wide. The street must be calmed, however, and traffic speeds must be reduced to increase pedestrian connections throughout Manchester.

The following section proposes a short Avenue for this urban portion of Commerce Street, with a central tree-planted median, on-street parking, and narrower travel lanes. The Avenue thoroughfare type is normally used for higher volumes of traffic and includes a planted median, but is designed to be more of grand place, rather than leading between two places. The Avenue type depends upon street-front buildings, an arrangement that already exists along Commerce Street and should continue to be encouraged. The proposed section has a planted central median flanked by two 10' travel lanes, an 11' travel lane, and a 9' parking lane. The section is shown in Figure 7.

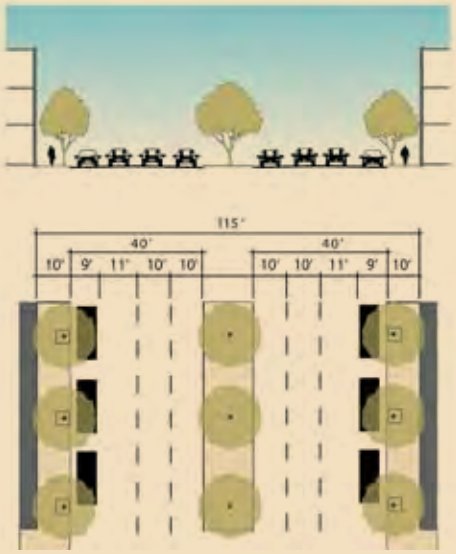


Figure 7. Section for Commerce Street


Intersection of Commerce Street and Hull Street

BR 111-100 14/11/11/11/3/3/11/11/11/14

The Manchester Bridge connects Old Manchester to Downtown. The interior of the bridge has an existing elevated pedestrian/bicycle path. Bicycle crossing of the bridge is problematic. The elevated central path is difficult to reach at either end of the bridge (the southern end is reached by a flight of stairs), and the high-speed entry and exit ramps are difficult to cross with bike lanes.

The proposed six lane bridge section has ample capacity for projected traffic. The outside lane is a 14' bike lane/breakdown lane. Going toward downtown, bicyclists can enter the bridge by riding up the ramp from Semmes Avenue and 7th Street. The ramp bike lane continues across the bridge, eliminating the merge movement. Exiting, cyclists will stay in the 14' outside lane, which will diverge at the Semmes Avenue exit. A proposed roundabout at the Semmes Avenue exit allows cyclists to disperse at low speed in whichever direction they are bound. This section is shown in Figure 8.

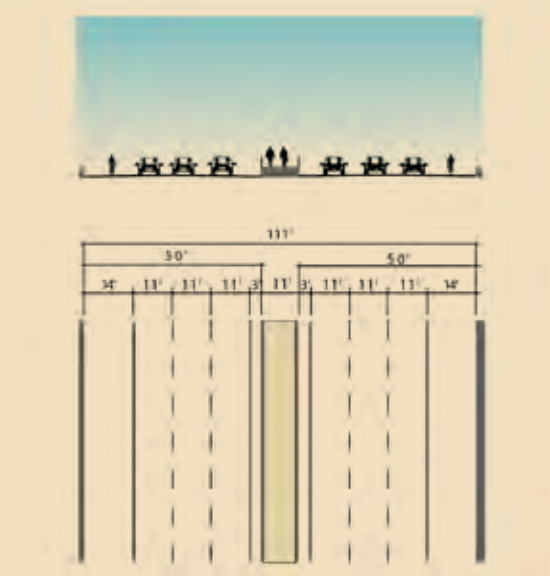


Figure 8. Manchester Bridge

4. Return One-way Streets to Two-way Operation

The Richmond study area has an excellent street network. The tight grid of small blocks provides multiple routes for pedestrians and vehicle operators and should provide high levels of accessibility and traffic capacity. However, the system does not operate at full efficiency, from a walkability and development perspective, due to the extensive one-way street designations and left turn regulations. These two issues result in unnecessary vehicle miles of travel (VMT), frustration to locally circulating traffic (pedestrian, bike, and transit as well as automobile) and increased operating speeds. Reversion to two-way traffic will improve the marketability of Downtown streets and reduce unnecessary circulation while sufficiently managing traffic speeds and accommodating current traffic volumes.

A number of adopted Downtown plans, including the 2004 Downtown Plan, the 2002 Shockoe Bottom transportation study, and the 1998 West Main Street Corridor Plan also recommended returning streets to two-way operation. Based on the recommendations of these adopted plans and the goals of the current Downtown Plan, all one-way streets within the Downtown study area were reviewed to determine the feasibility of one-way operation reverting to two-way operation. As a result of this analysis, HPE recommends converting most of these one-way pairs to two-way operations over time.

All one-way streets Downtown should be returned to two-way operation with the exception of the following streets: Byrd and Canal Streets, which are physically designed to operate one-way with the ramps connecting to the Expressway, 11th Street, which connects into the MCV Campus, and 3rd, 5th, and 7th Streets, which serve as access to the Interstate. Converting Downtown streets from one-way to two-way operation cannot be taken lightly. Streets considered for two-way conversion should be assessed for potential accidents, traffic volumes, traffic impacts, adjacent land uses, cost, and availability of funding.

Advantages of two-way traffic operation

Changing street directions, while perhaps not as expensive or difficult as moving curb lines or building completely new streets, is still a serious undertaking and requires detailed engineering and design work under the guidance of traffic engineering professionals. The costs for signalization and new traffic control devices, re-learning of the new circulation system

by residents, and the planning and study that accompany the conversion from one-way to two-way operation are all additional expenses. These expenses can be reduced by staging the conversion to accompany planned signal upgrades. The following are some advantages associated with one-way street conversion. HPE bases its recommendations for two-way conversion on the vision for the Downtown area, as expressed by the community during the charrette.

1. Intuitive navigation for visiting drivers
People who move to or grew up around a one-way street system eventually incorporate the navigational requirements and find little difficulty with them. Visitors and guests, however, frequently experience the frustration of "seeing the destination but not being able to get there" due to one-way streets. Because the Downtown Richmond vision involves increasing tourism and business traffic, a two-way circulation system will be more intuitive and therefore preferable.

2. Easier circulation for cyclists and transit
One-way streets present greater difficulty for cyclists than almost any other user group. A bicyclist provides his or her own power for vehicle operation and typically tries to conserve that power by choosing the shortest path between destinations. Ideally, this path should also be safe and legal. One-way streets make all of these criteria more difficult to achieve. If bicyclists ride legally and safely on the street, one-way routing forces a more circuitous path to a destination, just as for buses and automobiles. The difference is that a hill, for instance, is not an inconvenience to a bus or car, but can make a big difference to a cyclist. Consequently, one-way streets encourage wrong-way riding, because that may be the most direct route to a destination, and sidewalk riding, for the same reason. Wrong-way riding and sidewalk riding are common causes of bicycle crashes.[2] A safe bicycling system should discourage this type of riding. Converting the one-way streets to two-way operation will, essentially, double the available routing options and cut in-half the distance required to reach many destinations by bicycle.

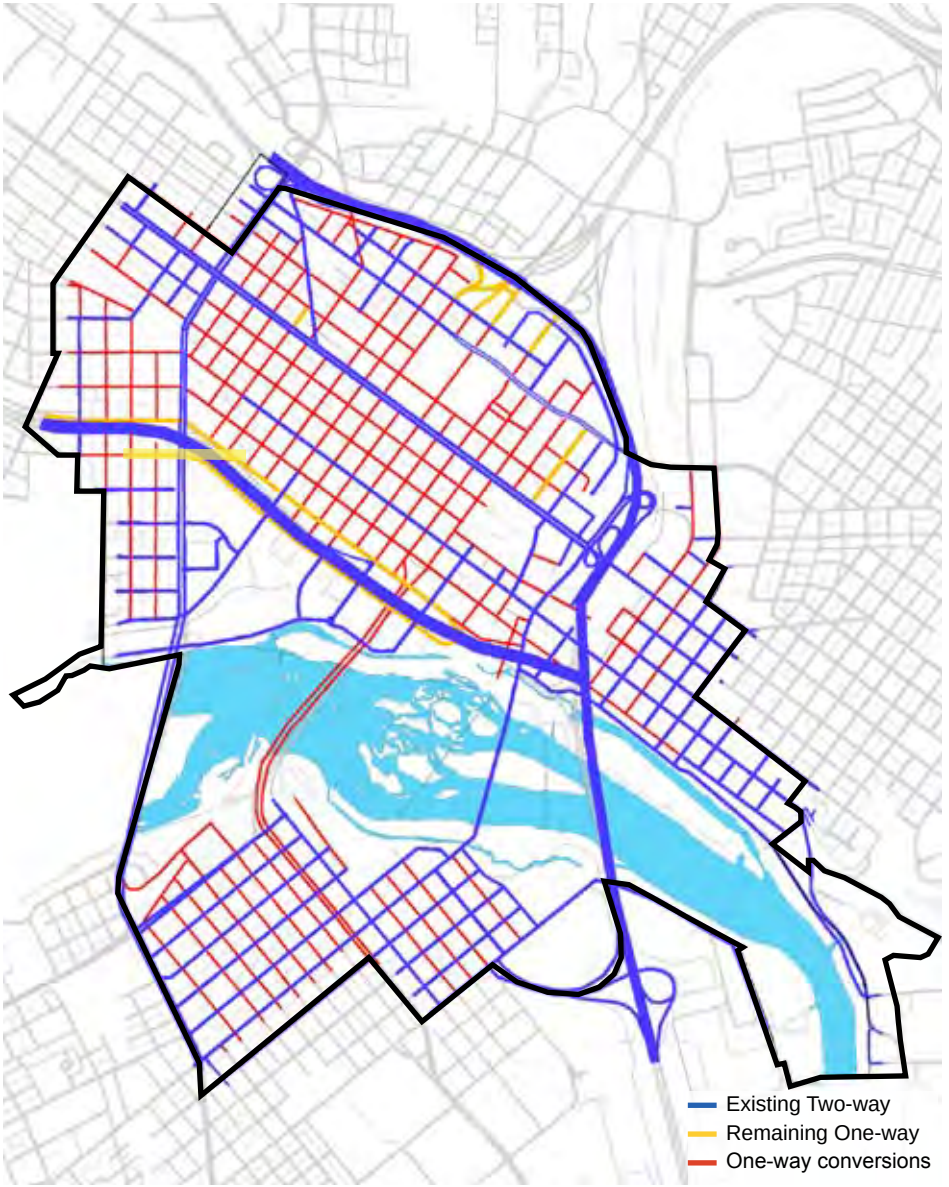


Figure 9. Proposed One-way to Two-way conversions

2 Orlando Area Bicyclist Crash Study: A Role-Based Approach to Crash Countermeasures, MetroPlan Orlando 2007

Transit buses face two dilemmas with one-way streets. First, the circuitous routing required to reach a destination means that often passengers have to be dropped off on one street and picked up on another, which can make routing confusing to passengers. Second, because buses have doors on only one side, buses are not able to access some locations, requiring unnecessary street crossings to reach a destination.

3. Positive reception from local businesses
As described in Walker, Kulash, and McHugh in "Downtown Streets: Are We Strangling Ourselves on One-Way Street Networks?," two-way streets are healthier for on-street retail businesses. This report describes the effect of "view shadows" in which business on the cross-street that front in the direction of the one-way street have less visibility, compared with a two-way street. A study conducted for the City of Kelowna found that introduction of a one-way system from an existing two-way system would definitely have a detrimental effect on Main Street type businesses, based on comparisons with other locations.[3] By comparison, another survey of businesses in Michigan having undergone one-way to two-way conversion found that local businesses were favorably impacted by the change.[4] HPE also queried reports of retail satisfaction or dissatisfaction with one-way to two-way conversions in Charleston, Lubbock, and Toledo, just to name a few cities of comparable size to Richmond, and found that retail along the newly-reverted two-way streets is thriving, based on research papers and newspaper accounts available on the internet. Each of these cities is planning to implement additional one-way conversions. Montgomery, Alabama, another southern capital city, is currently implementing a one-way to two-way conversion as part of its 2006 Downtown Master Plan, for these same reasons.

4. Pedestrian navigation and comfort
One-way streets may appear, at first glance, to be of little concern for pedestrian circulation. Pedestrians, after all, walk on the sidewalks, and sidewalks still go in both directions, even on a one-way street. However, there are several circulation issues associated with one-way streets and pedestrians. To begin with, street signs and traffic signals on one-way streets are oriented for the convenience of drivers and are not visible to pedestrians walking toward traffic. Secondly, pedestrians may find it safer to walk facing traffic, rather than away from traffic. One-way streets limit this option, affecting how pedestrians perceive safety on a street.

5. Reduced vehicle speed and fewer, less severe, pedestrian accidents
One-way streets encourage higher travel speeds which negatively impacts walkablity. Vehicle speed has serious consequences for pedestrian safety, as shown in Figure 2. In addition, a May 2000 article in the Canadian Journal of Public Health found that one-way streets constitute an increased risk especially for children.[5] This is a non-trivial finding if Richmond intends to increase residential development in the Downtown area. The Center for Problem-Oriented Policing found that vehicle speed is a major factor in pedestrian injury and fatalities as described in their website publication "Pedestrian Injuries and Fatalities" Guide No. 51 (2007) by Justin A. Heinonen and John E. Eck.

6. Improved intersection safety
A common argument in favor of one-way street operation is that the intersections of one-way streets are safer for pedestrians, due to the reduction in turning conflicts. In reality, complex intersections are often safer because they require drivers to focus on their environment, including pedestrians in the intersection. In low-speed street design such as that recommended for Richmond, the complexity of the intersection is in itself a safety feature. This counter-intuitive finding has been demonstrated by Hans Monderman, the late Dutch traffic engineer who pioneered this approach.[6]

7. Reduced vehicle miles of travel (VMT) due to more direct routing
One-way streets typically increase overall VMT, due to the circuitous routing required to reach a given address. HPE conducted a simple exercise to demonstrate this increase. As shown in Figure 10, HPE estimated the VMT needed to access locations along Main Street and Grace Street from 9th Street. The estimated mileage, based on the one-way street system, was 15.2 miles, due to the number of additional turns required. For

3 City of Kelowna Downtown Kelowna Association One Way Couplets Impact Analysis Final Report July 2003, Prepared by: Development Consulting Group

4 City of Alma Two-Way Street Project, http://www.downtownalma.com/twoway.php

5 Are child pedestrians at increased risk of injury on one-way compared to two-way streets?" Wazana A, Rynard VL, Raina P, Krueger P, Chambers LW.

6 Hans Monderman Presentation, CNU Transportation Summit, London England 2007

direct access to these locations on two way streets, the VMT required was only 12.3 miles. In this example, the one-way system required 23% more vehicle miles of travel to reach the same set of shops along the street. This figure is consistent with other estimates of additional travel required for one-way circulation, as described by Walker, Kulash, and McHugh in "Downtown Streets: Are We Strangling Ourselves on One-Way Street Networks?" and by Lum Kit Meng and Soe Thu in the Journal of the Institute of Traffic Engineers, Singapore, in their 2004 paper "A microscopic simulation study of two-way street network versus one-way street network" comparing one-way and two-way travel networks.

Disadvantages of two-way traffic operation

The primary advantage of one-way streets over two-way streets is the additional traffic capacity allowed by one-way operation. Allowing two lanes to operate in the same direction allows faster speeds, reduces friction between lanes, simplifies turning movements for motorists, and simplifies traffic signalization. As an accepted rule, one-way operation allows an additional 20% of traffic capacity compared to two way operation on the same street. In theory, the disadvantage of converting a street from one-way to two-way is a reduced ability to carry traffic.

In practice, however, this is usually not a problem within a grid network

Figure 10. Vehicle Miles of Travel Analysis

such as Downtown. If streets are converted as pairs, an eastbound and a westbound, for instance, the total number of lanes available remains the same. The lanes are simply moved to other streets. This has advantages as well, by allowing motorists to by-pass a congested street and choose the adjacent street, as it will be predictably moving in both directions.

The City of Lubbock, TX, underwent a one-way to two-way conversion in 1995. The City Traffic Engineer wrote a paper for the Institute of Traffic Engineers (ITE) detailing the process and the results.[7] The author asserts that despite expectation of traffic calamity, the conversion went smoothly. In fact, Lubbock continued with other one-way conversions after this initial effort. The author also reported that the change was well-received by downtown businesses.

The conversion from one-way to two-way operation is neither novel nor radical. It has been done in a countless number of cities throughout the United States, including San Francisco, CA, Hickory, NC, Toledo, OH, and Miami, Orlando, and Tallahassee in Florida. The effects and mechanics are well-understood, so there should be no confusion or misplaced expectations for Richmond's conversions. In places where two-way streets have been converted to one-way operation, as in Richmond, traffic moves faster and streets have a higher traffic capacity. In communities desiring this outcome, the change has been well-received. In communities where one-ways have been converted to two-way, as proposed in the Downtown Plan, businesses have benefited, residents welcomed the change, and traffic patterns adjusted accordingly. These communities expected these outcomes, and were supportive of them.

The one-way versus two-way debate in Richmond is, at heart, a debate over the vision for Downtown. The studies referenced here indicate that two-way streets help businesses thrive and create places where people want to live and work, balancing traffic movement with livability. HPE recommends two-way streets because the community expressed a vision of a livable, walkable Downtown where pedestrians can thrive.

7 Converting back to two-way streets in downtown Lubbock, Jere Hart, ITE Journal August 1998.

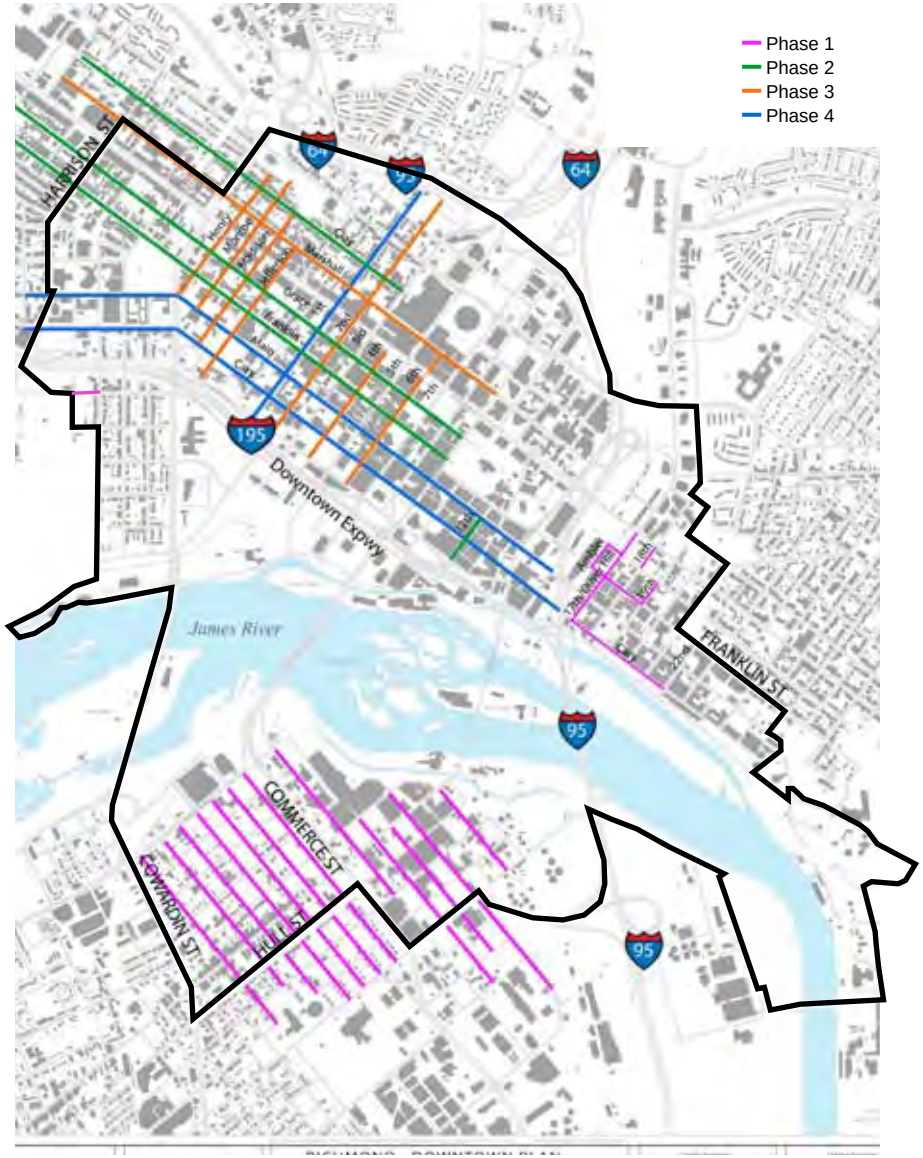


Figure 11. Phasing schedule for two-way conversion Downtown

Phasing

One-way streets should be converted to two-way operation in phases, based on the land-use goals of the Downtown Plan, and the feasibility of conversion. The conversion can take place in four phases over the next twenty years. The recommended conversion phasing schedule is shown in Figure 11, and described below:

Phase I: Shockoe and Manchester

Shockoe Bottom is experiencing a rebirth, and conversion of one-way to two-way streets would provide an immediate benefit for shops and businesses in the area. The recent Shockoe Bottom study recommended these conversions. The recommended conversions are Ambler Street, 17th Street/Oliver Hill Way, 18th Street between Grace Street and Broad Street, 19th Street between Grace Street and Franklin Street, Franklin Street between Ambler Street and 19th Street, and Cary Street between 17th Street and 22nd Street (not included in the Shockoe Bottom Study).

Manchester, across the river from Shockoe, is also a target area for redevelopment. The streets recommended for two-way conversion are the east-west streets between Cowardin and the river. Because these areas are largely vacant or underutilized today, the two-way conversion will cause minimal disruption and may improve the attractiveness of the area for reinvestment.

The development of a roundabout where the Downtown Expressway exit ramp currently merges with Idlewood Avenue would allow for the conversion of traffic flow from one-way to two-way between the proposed roundabout and Cherry Street.

Phase II: Clay, Grace, and Franklin Streets

These streets address the Downtown proper by providing more convenient access into downtown using the same number of lanes but a greater number of streets. Franklin and Grace, for instance, form a one-way pair with Franklin eastbound and Grace westbound. Each street has two lanes. Current estimates of performance (level of service) on these streets indicate they operate at LOS D in this configuration during their peak hours (AM peak for Franklin, PM peak for Grace.) This is a

standard, acceptable LOS for urban streets. However, in this configuration the streets provide only one way in and one way out as a pair – in on Franklin, out on Grace. As two way streets, each street will have one lane in each direction, so there will be two ways in and two ways out of Downtown on Franklin and Grace Streets. These streets will continue to operate at LOS D as two lane streets, again based on preliminary, planning-level LOS analysis. The benefits of this arrangement are described in greater detail below. On Clay Street, the current configuration is one-way west bound, away from the Convention Center. Clay is recommended for two-way operation to provide better circulation around Jackson Ward and the Convention Center, and also to assist the general redevelopment of the northwest Downtown area.

Phase III: Marshall Street, Henry Street, Monroe Street, Madison Street, Jefferson Street, 2nd Street, 4thStreet, and 6th Street
Returning Marshall Street to two-way operation completes the conversion begun under Phase II with Clay Street, allowing Marshall and Clay to form the center of northwest downtown redevelopment area. The remaining Phase III streets are north-south connectors. Returning these streets to two-way operation will allow more convenient circulation around the Downtown area. The only north-south streets that are recommended to remain one-way are 3rd Street, 5th Street, and 7th Street, which provide access to and from I-64.

Phase IV: Main and Cary Streets
These two streets are also designated as state routes (SR 147/Cary and US 60/360/Main) and have been left as Phase IV, due to additional study that will be required to obtain state and federal permission to implement changes. However, there is no reason why these two streets could not be reverted to two-way operation first, if the City were inclined to pursue this change immediately. Otherwise, the Phase I-III modifications can be implemented first before addressing Main and Cary Streets.

One-way operations on Oliver Hill Way

Case Study – Grace Street

HPE analyzed the section of Grace Street from Belvidere to Lombardy Street to better understand the one-way to two-way conversion process in Richmond. Prior to the 1980's, this street was one-way west-bound, as Grace Street is today from Belvidere to 9th Street. In the early 1980's, this section of Grace Street was returned to two-way operation at the request of business owners and residents along the street. The conversion was deemed successful by residents. A 1984 article from the Richmond Times Dispatch reported that, "Nightly drag races are impossible now" and "the traffic speeds and noise seem to be down markedly". City Public Works, on the other hand, opposed the conversion on the grounds of safety concerns. They reported an increase in crashes along Grace Street during the following few years, which is a typical occurrence any time a major change is made to a traffic pattern.

During the charrette, HPE spoke with a Richmond resident who lived on Grace Street during the transition period. This resident indicated that the conversion to two-way operation ushered in a renaissance of Grace Street. And indeed, HPE's own observations of this portion of Grace Street indicate an active street life, with people sitting on porches talking, students riding through on bicycles, and a buzz of activity. While taking pictures of the street, an HPE staff member was approached by residents, indicating a strong sense of community and ownership of the street. Although two-way operation has succeeded in transforming Grace Street into a livable place, and businesses on the two-way section of Grace Street are thriving, the City Public Works Department continues to view two-way operations on Grace Street as dangerous. Accordingly, City Traffic Engineering has a safety project funded to return Grace Street to one-way operation in the next two years.

The HPE team analyzed Richmond Police and Traffic Engineering's accident reports and came to an alternate conclusion that Grace Street operates as safely as any other street. While accident rates at some two-way Grace Street intersections are higher than their one-way Franklin Street counterparts, these accidents were almost always less severe, and can be attributed to higher activity levels- increased levels of pedestrians, bicyclists, businesses, and residences ultimately result in an increased likelihood of conflicts. Based on this research and the on-site analysis, HPE strongly recommends against the implementation of this Grace Street two-way to one-way conversion project. HPE's complete analysis of Grace Street and its current safety operations can be found in Appendix A.

Intersections of Grace and 5th Streets

5. Provide Efficient, Reliable Transit Downtown

In a revitalized Downtown area, The Greater Richmond Transit Company (GRTC) can expand its role of providing affordable public transportation for employees and residents. GRTC serves not only Richmond, but also the surrounding counties. The system map is included as Figure 12. In 2004, the most recent year for which data are available, GRTC carried 11.35 million passenger trips, using a maximum of 148 vehicles in service. The system recovers 27% of its revenue through the farebox, which is comparable to the national average. GRTC is the Designated Recipient of Federal Transit Administration (FTA) funds for transit operations in the Richmond area. This means GRTC is responsible for providing public transportation in the area and is the only agency that can receive Federal funding for this purpose. GRTC is currently completing a Comprehensive Operations Analysis (COA) intended to revise current missions, routes, and services. The COA is scheduled to be completed by the end of 2007.

As the Downtown continues to develop, parking will become a more valuable market good, and greater reliance must be placed on public transit. GRTC's regional connections will be a critical part of the multi-modal transportation system. If Downtown redevelopment is pedestrian-oriented, as supported by this Plan, it will also be transit-supportive. As shown in Figure 8, GRTC currently operates in a classic "hub and spoke" bus route system, focused on the Downtown area. The system does not have a Downtown transfer facility and transfers take place along city streets. This arrangement results in crowds of passengers waiting at bus stops along Broad Street, causing concern from merchants along the corridor. GRTC indicated that the location of one and possibly two dedicated transfer facilities is being considered. These facilities should mitigate the bus stop crowding problem.

The current bus system does not serve circulation needs within the Downtown. A transit strategy employed by some Downtowns to improve local circulation service is to use rubber-tired trolley-replica vehicles in addition to regional buses. These vehicles are regular rubber-tired bus or truck chassis skinned to resemble classic streetcar trolleys. They have several advantages over steel-wheel street cars in that they are cheaper to purchase and operate and are more flexible in their routing. This minimal investment and commitment has a downside as well. Routing flexibility, though it is convenient for planning purposes, fails to leverage land use investment. Nonetheless, such a system, if operated with sufficiently short headways of around 5 minutes between buses, could be a valuable part of the Downtown circulation system.

Pursue a Bus Rapid Transit system as a first step to bring back the Streetcar

A major part of GRTC's Comprehensive Operations Analysis is the introduction of Downtown bus transfer centers in combination with a dedicated-lane Bus Rapid Transit (BRT) system along Broad Street. Bus transfer

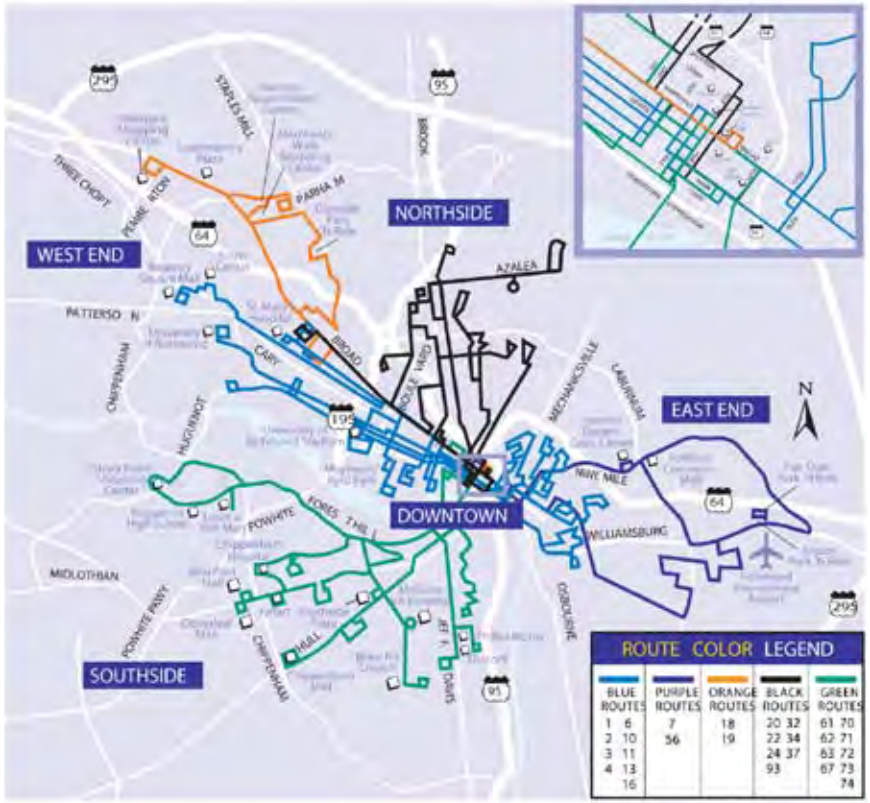


Figure 11. GRTC Regional System Map

Figure 12. Proposed Streetcar Route

stations will improve transit in Downtown by consolidating all transfers into off-street, mixed-use facilities and reducing bus through-traffic on Broad Street. Transfer facilities are recommended near Main Street Station and the Convention Center. As Downtown transit grows, additional bus transfer stations can be considered, for example in Manchester.
GRTC is pursuing Bus Rapid Transit as a pro-active first step towards bringing the streetcar back to Downtown. Bus Rapid Transit is an efficient, reliable, and low-cost strategy to begin regular transit service through Downtown, and it can be funded through an attainable federal grant from the Federal Transit Authority (FTA). After a 12-18 month operating period, GRTC will present BRT ridership levels to the FTA as grounds for funding a Downtown Streetcar system. Evidence of strong ridership levels will help Richmond to compete for limited Federal Streetcar funding. The BRT system is proposed to run in dedicated lanes in the center of Broad Street, where the existing median is located. These dedicated lanes can be transitioned into streetcar tracks when federal streetcar funding becomes available. A diagram of how Bus Rapid Transit could be accommodated along Broad Street is shown in Figure 3.

Revival of the Electric Streetcar System

A popular solution to Downtown's transit needs is an electric streetcar system. The advantages of a streetcar system are compelling. In terms of walkability, the recommendations for narrower streets, more on-street parking, and slower traffic speeds will tend to increase local traffic congestion. As Downtown redevelops, this pressure will only increase. A streetcar is an effective way to address congestion by providing access into and through the Downtown area. Much of Downtown Richmond was built around streetcar lines, so the city fabric is prepared for a return to this kind of transportation. A streetcar can accommodate greater numbers of Downtown residents and workers than personal vehicles can; this will help Downtown Richmond to achieve its development potential. In 2002, Greater Richmond Transit Company and the Metropolitan Planning Organization funded a Downtown Streetcar Study that provided detailed information on the projected costs and routing of a new streetcar line. The study, conducted by Burgess & Niple Inc., identified two conceptual 2.54-mile routes that connected major activity centers Downtown.
It is important that the streetcar system be viewed as a complement to,

and not a competitor with, the existing bus system. Studies indicate that bus transit and streetcars serve different markets, and can work together to meet shared needs. The routing system and the low cost of bus transit makes it the preferred choice for regional commuters and more diverse populations. Streetcar service would provide local circulation through the Downtown, and could also be used by tourists.

Feasibility

The reintroduction of streetcar lines is no longer a novel idea but is becoming a key feature for cities interested in restoring life to their downtown areas. Over the past twenty years, many U.S. cities have reintroduced light rail and electric streetcar systems, including Portland, Oregon, St. Louis, Missouri, Little Rock, Arkansas, Tampa, Florida, and Memphis, Tennessee. The principles underlying the Downtown Richmond Plan are very supportive of public transportation, so the plan itself is an important step toward making an electric streetcar line feasible. Other feasibility factors include space for streetcar rails within the existing right-of-way, which Downtown has, and cost.

Routing

The proposed initial route for the streetcar, developed during the charrette, is shown in Figure 10. This route differs slightly from the 2002 Streetcar Study proposed route, due to recent modifications to the street system and proposed circulation changes. The route shown in blue and red in Figure 10 goes down Broad Street, Main Street, and Canal Street, providing service to Shockoe Bottom and the multimodal Main Street Station. The route shown in gold is a much more long-term proposal to connect to the VCU Monroe Park campus, providing access across Downtown to the VCU MCV Campus. The route shown in green is another long-term proposed route crossing the river on the historic Mayo Bridge and providing service to Old Manchester. As the Commonwealth's plans for a new street through the Capitol Square Complex develop, this street, along with City streets adjacent to the Capitol Square Complex, should be considered as route options for a future streetcar line.

Cost

The 2002 Downtown Richmond Streetcar Study provided projected costs for constructing and operating the streetcar system. These costs correlate

Market Street, San Francisco
Here transit loading platforms are incorporated into the street design by removing on-street parking at the intersection and moving the thru-right travel lane adjacent to the curb, and placing a loading platform in the street adjacent to the transit lanes. Loading platforms of this type can be used on Broad Street for the Bus Rapid Transit stops.

with the cost of such systems in similar communities. HPE finds that the Little Rock, AR system may be the most similar to Richmond's system, in terms of scale and available ROW. That system cost $7.6 million/mile to construct and $230,000 per year to operate (per 2004 the National Transit Database report, for two service vehicles.). However, costs rise annually and the budget will need to be revisited when the Richmond community is prepared to start investing in the streetcar system. The 2002 study calls for the streetcar to be funded under the FTA transit funding program, meaning that GRTC would be the responsible agency. To avoid a conflict with existing transit programs, funding for the streetcar could be identified from new transit funding sources, rather than reallocating current transit funding to the streetcar system.

Due to its expense, the streetcar concept is sometimes dismissed as improbable; however, nothing could be further from the truth. In the world of transportation funding, the layout and operation of a streetcar system is no more expensive than the acquisition of right-of-way and construction for a major road or street. In an industry where numbers are rounded to the nearest million, streetcar systems are not unreasonably expensive. Cost alone should not deter Richmond from pursuing a streetcar system. Experience in other cities has shown that streetcars have an ability to leverage investment and redevelopment that rubber-tired vehicles simply do not have. From this perspective, investment in a streetcar system is actually an investment in the economic development of the city, should the city decide to pursue this option.

The advantages of a streetcar system are compelling. In terms of walkability, the recommendations for narrower streets, more on-street parking, and slower traffic speeds will tend to increase local traffic congestion. As the city redevelops, this pressure will only increase. A steel-wheel trolley is an effective way to address congestion by providing access into and through the Downtown area. All of old Richmond was essentially built around streetcar lines, so the city is spatially very adaptable for a return to this kind of transportation. Only a streetcar will be able to carry sufficient passengers to support the intensity of development possible in Downtown Richmond.

Restore Main Street Station as an inter-modal center

Main Street Station was built in 1901 as a grand terminal to welcome travelers into Downtown. The chateau-style station and generous train shed was once a bustling center of transportation and commerce. By 1975, however, the interstate system and automobile usage had eclipsed the railroad system, and the train station closed due to flood damage and lack of passengers.

In 2003, Main Street Station's fortunes turned. The station was fully restored and re-opened to limited Amtrak service, serving two trains per day. Parts of the train shed are dedicated to cultural exhibitions; however, Main Street Station remains underutilized. The City should take advantage of this great asset by restoring is role as the center of the community.

The City is considering options for Main Street Station and the surrounding properties. There are opportunities for both transportation-related functions and other types of uses for the existing buildings and grounds, but any development plan for the property should include a new street through the two-block long train shed, in order to increase connectivity in the area and enhance pedestrian access. It is important that the City fully explore the options for revitalizing the property while maintaining its eligibility for current and future transportation-related grant funding.

An important component of the future of Main Street Station is to consider it for a multi-modal transportation hub for Downtown. A multi-modal transportation hub could include increased passenger rail service, commuter rail service, light rail or streetcar, buses, bus rapid transit (BRT), shuttles, taxis, and bicycle/pedestrian facilities. This would provide a tremendous benefit to Downtown, as it does not currently have an integrated transportation center, thus preventing most residents and workers from using transit. Main Street Station is an excellent choice for such a transportation center, as the station is a grand entrance to the city, and its location provides direct access to the City Center and Downtown neighborhoods. The impact of any such use on the existing residential/commercial nature of the surrounding neighborhood should be carefully evaluated in consultation with representatives of the neighborhood prior to actively considering any such potential use.

Main Street Station has become a focal point of redevelopment plans for Shockoe Bottom.

A short-term strategy for such a transportation hub would be to provide bus service, airport shuttles, taxi and limousine service at the train station. As urban transit matures, a streetcar could be integrated into the system, and ultimately, increased rail service could serve the station, making Main Street Station a local and regional transportation destination. If these proposals do not take hold, another interim option would be to lease the train shed space as a unique location for a diverse range of local and national retailers.

The development of Main Street Station as a multi-modal hub does offer the opportunity to consider transit-oriented development (TOD) within the surrounding area. TOD allows for increased levels of density for commercial and residential uses within an area due to the anticipated use of transit and the reduced reliance on automobiles. Increased levels of density beyond what is generally recommended in this plan for the area surrounding the train station should only be considered if Main Street Station is developed into a multi-modal transportation hub.

As additional information is gathered regarding the extent of historic sites, including Lumpkin's Jail and others associated with the slave trade, on and adjacent to the Main Street Station property, impacts of any proposed development on the historic site(s) should be carefully considered. Development that interprets the African American historical experience, such as a visitor center or viewing stations, is appropriate for the site.

6. Plan for Bicyclists

Although today we talk about transit planning, pedestrian planning, traffic engineering and bicycle planning as separate entities, at one time these needs were addressed holistically through city planning. The principles of the Downtown Plan are based on this holistic approach, therefore transit, pedestrian, automobile, and bicyclist needs are addressed with every recommendation of the plan. Accordingly, the only part of this plan that contains specific "bicycle and pedestrian planning" and dedicated bike lanes are street sections where vehicle speeds exceed 30 mph, such as the Manchester Bridge. In all other areas, walkable street designs inherently provide for pedestrians and bicyclists.

HPE's recommendations for bicycle accommodation are based on years of bicycling experience with bike commuting and bike touring, as well as observations and measurement of bicycle facilities and usage around the nation. The principle that underlies bicycle riding on low-speed, traditional urban streets such as those Richmond study area, is called "vehicular cycling" and is based on the work of John Forester, author of "Effective Cycling". This principle is also the core of the League of American Bicyclists (LAB) "Bike Ed" program. Stated simply, the principle is that cyclists fare best when they behave and are treated as the operators of vehicles. HPE's staff includes a League Cycling Instructor, certified by the LAB to conduct bicycle education and training classes using the LAB materials. This background informs the recommendations included below.

More important than bike lanes, from the perspective of encouraging walkability and bikeability, is the provision of adequate bicycle parking at either end of the bicyclist's trip. Bicycle parking is often overlooked but critical to encouraging bicycle usage. Ideally, bicycle parking should be provided in the front of a store or building, in plain sight, easily visible from inside the store or building. HPE recommends the simple "u" rack for bicycle parking. Based on Richmond's sidewalk configurations, these bike racks should be placed on the sidewalk between tree wells, so that the sidewalk will remain open for pedestrians.

Bike Lanes

Dedicated bike lanes are not recommended for most Downtown streets. While bike lanes are the primary method of encouraging safe bike riding

on suburban and higher-speed roadways, they are problematic in urban, walkable areas such as Downtown. They create their own special set of safety concerns, as detailed below.

Conflicts
The addition of a new lane on the right side of the street immediately creates an entirely new set of turning conflicts at any intersection. This is not a serious issue on arterial streets with few intersections, but it can be a real problem if bike lanes are used in areas with small blocks and frequent intersections, such as Downtown. Anyone trained to operate a motor vehicle on the street already knows much of what is required for safe bicycle operation in traffic, but the addition of a bike lane onto the street creates an entirely new set of issues and conflicts for cyclists as well as motorists. For instance, many motorists, and cyclists, do not know that a motorist is supposed to merge into the bicycle lane before turning right. Doing so is technically correct, from a traffic operations perspective requiring all right turns to be made from the right-most lane, but it feels "weird" and is counterintuitive to cyclists as well as motorists.

Motorist Attention
Motorists who would fail to pay attention to a cyclist in the regular travel lane may be even less likely to pay attention to a cyclist in a bicycle lane, resulting in lane encroachment and sometimes fatality for the cyclist legally using the bike lane. After all, the bike lane is simply a 6" wide stripe of paint; if either the cyclist or the motorist fails to follow the rules of the road, trouble can occur. Sharrows, by comparison, make cyclists impossible to ignore and thereby command the attention of motorists more effectively.

Bike Lane Invulnerability
The bike lane is simply another lane on the street, and all the rules of the road still apply. Novice cyclists may not recognize this, and fatalities have occurred because fast-moving cyclists failed to pay attention to the traffic around them and respond appropriately to a motorist's error in judgment.

Passing distance
Motorists generally allow much less passing distance for a cyclist in a bike lane, versus a cyclist in the regular travel lane, adding to the sense of discomfort some cyclists associate with bicycle lanes.[8]

On-street Parking
On roadways with on-street parking, a standard 5' bike lane places bicyclists directly in the middle of the "door zone" of parked cars. If a parked motorist opens their door as a bicyclist is passing, the bicyclist will collide head-on with the car door. A 1999 FHWA report, conducted by the University of North Carolina at Chapel Hill, videotaped over 2,500 cyclists riding in bike lanes and concluded that bike lanes adjacent to on-street parking was positively correlated with an increase in collisions between cyclists and parked cars.[9]

8 "Evaluation of Shared Use Facilities for Bicycles and Motor Vehicles", Florida Department of Transportation/University of North Carolina at Chapel Hill, 1996

9 FHWA FHWA-RD-99–034 A COMPARATIVE ANALYSIS OF BICYCLE LANES VERSUS WIDE CURB LANES: FINAL REPORT


"U" bicycle rack

Speed management
On-street parking, in conjunction with 10' or narrower travel lanes, calms traffic by increasing the alertnessof the passing motorist.[10] There is no way to avoid a suddenly-opened car door, so motorists must travel more slowly and pay attention. If a 5' bike lane is striped next to the parked car, however, motorists in the adjacent travel lane can safely ignore the parked cars entirely, which eliminates the speed-management benefits of on-street parking. The Institute of Transportation Engineers recognized in their "Residential Street Design and Traffic Control" (1989) report that travel lanes wider than 10' limit the ability to achieve design speeds of 25 mph or lower; a 10' lane with a 5' bike reads as a 15' wide lane to a motorist (p. 23, p. 68) The walkable thoroughfare sections described earlier in this chapter are carefully calibrated to Richmond's existing streets and do not include bike lanes, with the exception of Manchester Bridge, due to this "road widening" effect of bike lanes. Essentially, bike lanes and on-street parking are incompatible. On-street parking has a greater traffic calming effect and so is the preferred treatment in walkable areas.

Shared Lanes
Based on the nationally-adopted practice of "vehicular cycling," HPE recommends that on the majority of Downtown streets, bicyclists should share the narrow, outer traffic lanes with cars. This will help to manage traffic speeds while maximizing bicyclist safety. These shared lanes should be marked with "sharrow" markings to signal to both bicyclists and drivers the presence of mixed traffic. The use of mixed-traffic "sharrow" lanes is becoming a preferred solution for accommodating bicycles on urban streets. In 2004, the California Traffic Control Devices Committee (CTCDC) approved the use of this marking in the State of California, where it is used extensively in San Francisco and smaller cities such as Chico. In January 2007, the National Committee on Uniform Traffic Control Devices (NCUTCD) endorsed the shared lane marking concept, and has recommended its inclusion in the Federal Manual on Uniform Traffic Control Devices (MUTCD). Several cities are currently participating in a Federally-approved program of using shared lanes with "sharrow" marking, including Flagstaff, Arizona, Fort Collins, Colorado, Louisville, Kentucky, Ithaca, New York, Portland, Oregon, Pittsburgh, Pennsylvania, Salt Lake City, Utah, and Sheboygan, Wisconsin.

Sharrows fit more naturally into the traffic system and eliminate the confusion that dedicated bike lanes can cause. Sharrows are specifically recommended on Broad Street, but may be used anywhere that the cycling community or local government finds them appropriate. Because they do not alter the width of the street, sharrows fit seamlessly into the walkable thoroughfare designs described in section 3 of this chapter.

Shared-lane biking is the preferred strategy for urban biking, as seen here in San Francisco.

10 "Narrow Residential Streets: Do they really slow down speeds? James Daisa, P.E. and John Peers, P.E.

What is a Sharrow?

A "sharrow" or shared laned marking consists of a standard bicycle symbol with two chevrons on top, indicating the direction of travel. It's placed at intersections and every 250' thereafter. It's designed for places where bike lanes are inappropriate but where cyclists like to be, are expected to be, or are intended to be. The sharrow is designed for use on streets with speeds below 35 mph and indicates that cyclists need to take the lane. It also indicates to motorists that cyclists will be taking the lane. "Take the lane" means that a cyclist rides near the center of the lane, effectively taking up the entire lane. This prevents motorists from trying to squeeze by the cyclist and either running over the cyclist or forcing them off the road, into a curb, or into a parked car, as is likely to happen if the lane is less than 14' wide (or 15' wide next to parked cars).

The sharrow is placed several feet from parked cars, placing cyclists safely out of the "door zone." Also, unlike a bike lane, the sharrow doesnot restrict cyclists' movement on the street. An unintended consequence of bike lanes is a tendency for novice cyclists to stay in the bike lane, "no matter what".

Exerpt from the Draft Manual on Uniform Traffic Control Devices, U.S. Department of Transportation, Federal Highway Administration Section 9C.07 Shared Lane Marking:

Option:
The Shared Lane Marking may be used to:

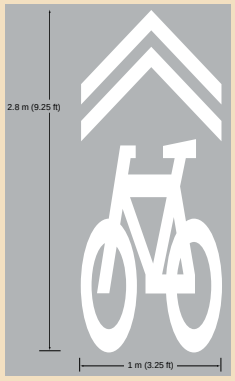
A. Assist bicyclists with lateral positioning in a shared lane with on-street parallel parking in order to reduce the chance of a bicy clist's impacting the open door of a parked vehicle,
B. Assist bicyclists with lateral positioning in lanes that are too nar row for a motor vehicle and a bicycle to travel side by side within the same traffic lane,
C. Alert road users of the lateral location bicyclists are likely to oc cupy within the traveled way,
D. Encourage safe passing of bicyclists by motorists, and
E. Reduce the incidence of wrong-1 way bicycling.

Guidance:
The Shared Lane Marking should not be placed on roadways that have a speed limit above 50 km/h or 35 mph.

Standard:
Shared Lane Markings shall not be used on shoulders or in designated bicycle lanes. If used in a shared lane with on-street parallel parking, Shared Lane Markings shall be placed so that the centers of the markings are at least 3.4 m (11 ft) from the face of the curb, or from the edge of the pavement where there is no curb.

Guidance:
If used on a street without on-street parking that has an outside travel lane that is less than 4.3 m (14 ft) wide, the centers of the Shared Lane Markings should be at least 1.2 m (4 ft) from the face of the curb, or from the edge of the pavement where there is no curb.

If used, the Shared Lane Marking should be placed immediately after an intersection and spaced at intervals not greater than 75 m (250 ft) thereafter.



The MUTCD standard graphic for sharrow lanes includes a bicycle with two chevrons marking the direction of moving traffic. Sharrow are used on a busy street in San Francisco.

7. Balance Parking Supply and Demand

Parking availability and pricing are the two greatest influences on the use of transportation other than the single-occupant automobile. Study after study since the 1980's has indicated that rates of carpooling, transit, and to a lesser extent walking and bicycling, are closely correlated to parking pricing and availability. As the cost of parking goes up (and availability goes down), people shift to other modes of transportation. Those who cannot shift to other modes will often shift travel times to take advantage of cheaper or more available parking at different times of day.

Consequently, urban areas with high levels of transit accessibility and walkability, such as the future vision for Downtown, are expected to have fewer parking spaces and/or more expensive parking spaces, compared to areas that are less urban and have lower levels of transit and walkability. This means that residents in the study area should not expect to have the level of parking accessibility that residents and employees in lower-density, less-urban parts of Richmond experience. The trade-off is that Downtown residents will have much higher access to transit and will enjoy a vibrant, walkable community.

Several recent studies, reviewed by HPE during the charrette, have examined the Downtown parking situation. The studies, including the Shockoe Bottom Transportation Study, indicate that parking demand is met through on-street parking, garage facilities, and surface lots. This parking is limited, however, by the removal of on-street parking during evening rush hour, and many surface lots are in poor condition. Given the low levels of residency and high levels of storefront vacancy in Downtown, parking is generally oversupplied in most areas. As redevelopment occurs, on-street parking should be maximized first, followed by off-street parking in garages or shared surface lots. The necessary square footage for parking exists, but it may need to be renovated to attract users.

If additional parking availability is needed as redevelopment occurs, the City could invest in structured parking, require additional parking as part of new development, and encouraging transit use, bicycling, and walking. Additional parking demand will be mitigated by the ability to share parking between land uses and by the use of paid parking standards. The ULI shared-parking methodology or the New Urbanist/SmartCode parking standards can be used to estimate parking demand as new develop-

A number of parking garages have been built Downtown in recent years.

Where off-street parking is necessary, garages should be located mid-block and wrapped with a liner building, such as this mixed-use building Downtown.

ment comes online. Paid parking should be implemented when demand exceeds 85% of supply, or when this is projected to occur, for instance, if a block redevelops and several large land uses move in, such as a large corporation or retailer. At this point, structured parking becomes viable and may be provided for either through negotiation with the developer, bonds, or other City financing mechanism.

Shared Parking

Conventional parking standards require a certain number of parking spaces for each land use, calculated per square foot, number of tables, or, for instance, number of washing machines. These standards assume that each land use is stand-alone. According to conventional standards, a laundromat customer who gets a sandwich at the restaurant next door will require a parking space at both the laundromat and at the restaurant. These assumptions are based on parking needs in suburban, non-walkable locations.

Shared parking standards, on the other hand, recognize that walkable locations such as Downtown Richmond do not require large amounts of separate parking for each land use. Instead, land uses share parking. For example, an office building requires parking for its employees during business hours, but not during the evening when the office is closed. A dinner restaurant requires parking in the evening, but not during the day when the restaurant is closed. Under conventional parking demand, each land use would require its own parking supply, even if they were located adjacent to one another. Shared parking standards allow the same parking lot to serve both uses.

The Urban Land Institute publishes a shared parking guide that can be used to estimate the level of shared parking availability for various mixes of land uses. In addition, New Urbanists utilize the SmartCode, which incorporates shared parking principles, to determine parking demand. As the area develops, the City should utilize these shared parking methodologies to estimate parking requirements. Using conventional standards would result in overestimation of parking requirements.

The City of Richmond's Parking Overlay Districts, as described in Article IX Division 1 of the Municipal Code, actually provide the groundwork for this type of analysis. Much of the data required for the Parking Overlay District parking determination can also be used for a shared parking analysis. The greatest modification is that rather than use a standard number of parking spaces per 1,000 square feet (such as 3 per thousand in Richmond's code), the shared parking analysis goes into greater detail to determine peak parking demands by time of day. This can result in a more realistic estimate of parking demand.

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Paid Parking

Parking management practices generally consider parking to be at capacity when 85% of available parking spaces are full. At this point, users of the parking spaces will complain about a lack of parking. If a parking survey indicates that parking is at 85% of capacity or higher, the recommended option is to implement paid parking. Under paid parking, users of the parking spaces pay a fee to park. The fee can be collected in a variety of ways, including meters, debit and credit cards, pass programs, smart cards, or parking attendants. Parking meters are more customer-friendly than ever, according to Ralph Rhudy in the City Traffic Engineering Division. Richmond parking meters can be paid by coin, tokens, smart cards, and even telephone calls to provide a credit card number. In addition, the "smart" meters used in Richmond provide a five minute grace period for parkers who overstay their time slightly. HPE agrees that parking meter technology has entered a new phase of customer-friendliness and profitability, and encourages the use of on-street parking and paid parking to address parking concerns. Parking meters that allow real-time adjustment of parking rates, for instance, allow the parking fee to be adjusted to control the demand for parking and keep demand at about 85% of capacity.

The critical parking concepts to remember are to let the urban form, including a mix of uses, on-street parking, and walkable streets, help mitigate the demand for parking; then use shared parking to accommodate the demand. When available shared parking and on-street parking reach 85% of capacity, implement paid parking strategies. These strategies will ensure that adequate parking always exists in the area, but that parking facilities will not define the area or be the most obvious land use, as is the case along downtown Cary Street and Canal Street at the present time.

Another parking concern is the spillover from large parking generators, such as universities and business centers, onto residential streets. Many towns and cities address this problem through residential parking permits, allowing non-residents to be easily spotted and ticketed or towed from residential parking streets. The Oregon Hill neighborhood, for instance, could use this method to protect residential parking from incursion by nearby commercial or university land uses. Representatives from VCU have been encouraging of residential parking permits for neighborhoods near the university.

During the charrette, HPE analyzed the Shockoe Bottom Parking Management Plan. This plan has, according to the information presented at the charrette, already been completed and can be implemented once approved by City Council. The plan includes many of the strategies described above, as well as a parking management company to oversee the entire operation. HPE recommends that this plan be implemented as the most expedient and cost-effective way to provide for parking needs.

Pay and Display Parking Meter

GETTING THERE

Cost Estimates

General cost unit cost estimate assumptions are provided below in the table. These estimates are based on Virginia DOT estimates per recent VDOT studies, City of Richmond Traffic Engineering Project estimates, and estimates from the Shockoe Bottom plan, grown from 2004 dollars to 2007 dollars at 4% annually. Note that 15% is the new inflation rate per VDOT in 2007. Inflation past 2007 should include this new rate. New street construction modifications required by this plan are minimal. Primarily, the plan calls for re-striping, resignalization, and some cases, the construction of brick or cobble safety strips.

Table 1: Unit Cost Estimates	
ITEM	COST ESTIMATE (2007 Dollars)
Brick Safety Strips	$200-$250/yd2
Milling of street to expose cobble (alternative to safety strip construction)	$6-$10/yd2
4” Paint Striping	$1.25-$1.50/lineal foot
Intersection Signalization	$90,000-$120,000 intersection: Total cost depends on size and complexity of intersection and whether the intersection is receiving a new signal or an upgrade of an existing signal
Pay and Display Parking Meter	$7,000-$9,000 each, one per side per block
Bicycle U-racks for bike parking	$170 -$200 per rack, installed, for surface-mounted racks; assume four racks per block for a single side of a street.

Phasing

Some of the recommendations in this report can be implemented immediately; others require more time due to cost or developer initiative required. For instance, a stop-controlled one-way street can be returned to two way operation very quickly. Similarly, left turn restrictions can be lifted at some intersections quickly. Installation of new traffic signals to permit two-way operation, however, is expensive, so it should be carefully considered in the Capital Improvement Plan over the next 5-10 years. With these provisions in mind, HPE recommends the following phasing program:

Less than five years

- Road diet and installation of bike lanes on Manchester Bridge
- Initial two-way reversion pilot in Shockoe and Old Manchester (Phase I conversion)
- Installation of Pay and Display parking system (or similar system to manage downtown parking)
- Start-up of rubber tire trolley circulator system
- Installation of bicycle racks in front of commercial venues
- Conversion of Broad Street for BRT operation

Five to ten years

- Implement Phase II and Phase III conversion of one-way to two way
- Implementation of recommended street sections on Grace, Franklin, and Clay
- Implementation of Commerce Boulevard revised street section
- Begin return of street car system, per Streetcar Study

Ten to 15 years

- Implement Phase IV conversion of one-way Streets
- Complete reconfiguration of downtown streets per Thorough fare Plan

Opportunistic Improvements

- Old Manchester Street modifications
- Extension of streetcar to Manchester
- Implement Downtown street sections
- Implement parking management programs

Converting Franklin Street

Phase I of the two-way conversion calls for Franklin Street between Ambler and 19th Street to be converted to two-way operation and converted to the ST 66-40 8-10-4-10-8 thoroughfare design (8' parking lane, 10' travel lane, 4' safety strip, 10' travel lane, 8' parking lane.) The average block length of this street is 290'. Using the unit costs above, the project cost estimates per block would be:

Safety Strip Installation :	$25,800-$32,250
Paint (stop bars, edge lines):	$860-$1,032
Pay and Display Parking Meter (2 per block):	$14,00-$18,000
Bike Racks (8 per block, 4 on each side):	$1,360-$1,600
Total Estimate Range:	$29,420-$52,882

For the complete three blocks of this project, the thoroughfare conversion improvements above would be estimated at $88,260-$158,646. Signal modernization costs are estimated at $90,000-$120,000 per intersection. For three intersections, the estimated cost would be $270,000-$360,000.

Total Project Cost estimate for thoroughfare conversion plus one-way conversion is $358,260 - $515,646

CONCLUSION

Everything the City of Richmond needs to know to build its future is contained in the bones of its traditional Downtown area. Small blocks, small streets, sidewalks, and buildings that create enclosure and a sense of place are the primary elements. The Downtown was designed before the automobile appeared on the scene, and in rebuilding Richmond's Downtown, designers must consciously return to that type of planning. Put aside the past 100 years of automobile-oriented development, and treat the vital automobile as a servant to the pedestrian, not vice versa. The transportation proposals in this report are all based on this concept. A return to this type of transportation planning requires cooperation among City departments, thorough planning, analysis and design, ongoing public input, and reinforcement from policymakers.

Citizens conveyed the clear message during the charrette that they would like to revive the economic life of Richmond's historic Downtown area. Richmond residents further envision a return to the walkable city structure of the early 1900's, with Downtown residences, places to shop and find entertainment, and restoration of the civic centers in the area. The traffic engineering and transportation planning approach taken during the charrette respects that vision and suggests that managing speeds to pedestrian-friendly levels and ensuring connectivity of the street system will accomplish this vision. HPE recommends the use of walkable thoroughfares for specific sections of the study area, reawakening Manchester, reviving the electric street car system and returning most of the Downtown's one-way streets to two-way operation.

housing & market analysis 6

Housing in Downtown Richmond

Housing in Monroe Ward

The Downtown Housing Market Position Analysis was prepared by Zimmerman /Volk Associates (ZVA) in September 2007. The following is a summary of the report; a complete version of the analysis is available at the City's Community Development Department.

THE MARKET FOR HOUSING IN DOWNTOWN RICHMOND

Analyzing potential housing markets for Downtown requires an understanding of household migration patterns: who is moving to Richmond and within Richmond, where are they moving from, how many are likely to live Downtown, what kind of housing do they prefer, at what price should units be offered to achieve sales and how fast can the units be occupied or sold? To identify the profile of potential Downtown residents, ZVA used migration data from the Internal Revenue Service, local market and demographic information, as well as demographic profiles of migrants and local residents that include housing preferences, lifestyle choices and a wealth of other information about their preferences. The result of this study is a segmentation of household change by the preference for Downtown living should the right housing products and amenities be available. At the same time, ZVA uses their expertise and data gained from over 18 years of practice to fine tune recommendations.

Market Potential for Downtown Richmond

As noted above, Downtown Richmond is comprised of several neighborhoods located within the designated boundaries of the Study Area: Shockoe Bottom, Shockoe Slip, the MCV Campus, Court End, the Riverfront, City Center, the Financial District, Jackson Ward, Monroe Ward, Carver, VCU, Oregon Hill, and, south of the James River, Old Manchester (approximately 12 census block groups in all).

Currently, nearly 83 percent of the households that live in the Downtown Study Area contain just one or two persons. Partly because of the extremely high percentage of households with two or fewer people, and the much lower percentage of family households, the median income, at $26,700, is lower than the median for the city as a whole, which is $37,600. The per capita income is just over $19,700. The median home value of those Downtown units that are owned, at $146,200, is lower than the citywide median of $149,900. More than a quarter of all dwelling units in the Study Area were built since 1999, whereas a third were built prior to 1939. Fourteen percent of the dwelling units in the Study Area are single-family detached, 28 percent are units in large multi-family buildings of 50 units or more, and the remainder are a mix of units in smaller multi-family buildings as well as single-family attached (townhouse/live-work) units.

Eighty-one percent of the Study Area households are renters; just 19 percent own their units. Nearly 24 percent do not own automobiles. The majority of the Study Area residents are employed in professional or sales and office work, with 62 percent in white-collar occupations, 13 percent blue-collar, and 25 percent service occupations. More than 12 percent are unemployed, although 36 percent are not currently in the labor force. Sixteen percent of the employed residents walk to work, 10 percent take public transportation, 12 percent car-pool, and nearly 58 percent drive alone. (The remaining four percent either work at home, ride bicycles or motorcycles, or have other means of getting to work.)

During the 1990s, the Downtown Study Area lost nearly seven percent of its population, only to rebound significantly since the 2000 census, with a gain of more than 20 percent. Extrapolating from the recent trend, Claritas projects that, over the next five years, the population of the Downtown Study Area will increase by just over 19 percent to 16,550 persons in 2012.

From a market perspective, the major challenges to new residential development in the Downtown Study Area include:

- Neglected or vacant properties: Derelict and vacant properties are a deterrent to potential urban residents, as they contribute to the perception that the Study Area contains low-value and dangerous neighborhoods.
- Safety concerns: As is the case in many other downtowns throughout the United States, the general perception held by the public at large is that Downtown Richmond is unsafe, particularly at night.
- High costs: The rising costs of materials, in addition to the typically high cost of adaptive re-use, drive rents and prices beyond the reach of many potential residents.
- Parking misconceptions: Regardless of the abundance of parking decks and open parking lots, the local perception is that there is insufficient parking downtown.

Housing in Downtown Richmond

From a market perspective, the assets of the Downtown Study Area that make it an attractive place to live include:

- *The James River:* Although currently largely under-utilized, and cut off by the flood barrier, the James River represents significant opportunities for both public access and private development.

- *Historic buildings*: There are a large number of civic, commercial, and residential buildings that are architecturally and historically significant and provide a unique identity for the city. These include Thomas Jefferson's Virginia State Capitol, the Main Street Station, the Jefferson Hotel and the Linden Row Inn, the John Marshall House, several churches, and numerous individual residences.

- *Employment*: Downtown is a significant regional employment center and home to Fortune 500 companies, Virginia Commonwealth University, as well as major medical facilities.

- *Dining and Entertainment*: The Downtown Study Area, particularly Shockoe Bottom and Shockoe Slip, contains dozens of eating establishments, ranging from cafés and bars to white-tablecloth restaurants; the 17th Street Farmers' Market is a downtown institution. Venues such as the Landmark Theater, Coliseum, the American Civil War Center, the Black History Museum and Cultural Center, the Edgar Allan Poe Museum, the Canal Walk, and multiple art galleries, including Artworks and the Plant Zero Art Center in Old Manchester, and events such as the First Fridays Art Walk are also great assets to downtown residents.

- *Walkability*: The Study Area neighborhoods are compact enough to walk from one end to the other, although, due to the number of open parking lots in each neighborhood, the quality of the pedestrian experience could be improved significantly.

As determined by the target market methodology, which accounts for household mobility within the City of Richmond, as well as mobility patterns for households currently living in all other cities and counties, in the year 2007, more than 4,000 younger singles and couples, empty nesters and retirees, and traditional and non-traditional families currently living in the draw areas represent the potential market for new and existing housing units within the Downtown Study Area.
The housing preferences of these 4,040 draw area households—based on tenure (rental/ownership) choices and financial capacity—are included in the table below.

These 4,040 households comprise approximately one quarter of the 16,050 households that represent the potential market for new and existing housing units in all of the City of Richmond, a share of the total market that is consistent with Zimmerman/Volk Associates' experience in other cities.

The market potential numbers indicate the depth of the potential market for new and existing housing units within the Downtown Richmond Study Area, not housing need and not projections of household change. These are the households that are likely to move within or to Downtown if expanded housing options were to be made available.

Housing Type	Number of Households	Percent of Total
Rental Multi-Family, below market	590	14.5%
Rental Multi-Family, market rate	900	22.3%
For Sale Multi-Family	710	17.6%
For Sale Single-Family Attached	400	9.9%
For Sale Single-Family Detached, below market	310	7.7%
For Sale Single-Family Detached, market rate	1,130	28.0%
TOTAL	**4,040**	**100.0%**

Zimmerman/Volk Associates, Inc., 2007.

From the perspective of draw area target market propensities and compatibility, and the context of the individual neighborhoods and districts within the Study Area, the potential market for new housing units within the Downtown Study Area includes the full range of housing types, from rental multi-family to for-sale single-family detached. Appropriate housing types for the Study Area therefore include:

- Rental lofts and apartments (multi-family for-rent);
- For-sale lofts and apartments (multi-family for-sale);
- Townhouses, live-work (single-family attached for-sale); and
- Houses on urban lots (single-family detached for-sale).

The residential re-use of existing non-residential structures is one of the most beneficial downtown redevelopment types; adaptive re-use creates and enhances a pedestrian-oriented street environment at a familiar, and often historic, urban scale. In downtown locations, large buildings that contain more potential adaptive re-use square footage than can be absorbed for housing within a feasible time frame could be redeveloped with retail and/or office uses augmenting housing.

The creation of "loft" dwelling units through adaptive re-use of existing buildings has been instrumental in the establishment of successful residential neighborhoods in or near the downtowns of numerous American cities, from Grand Rapids, Michigan, where the first loft apartment building was successfully introduced and leased in 2002, to Saint Louis, Missouri, where, over the past four years, more than 900 loft apartments in the Washington Avenue Loft District have been completed and occupied, are under construction, or are in development. In addition to the major cities of New York, Boston, San Francisco and Chicago, other cities where loft development has occurred or is underway include Birmingham, Charlotte, Louisville, Richmond, and Nashville.

The raw space version of a loft, or "hard" loft, is adaptable for a wide range of non-residential uses, from an art or music studio to a small office, as well as residential living areas. The loft is not dependent upon building form, other than that it is almost always within a multi-unit building.

The Convergence of the Baby Boomers & the Millennials

The market for urban housing, particularly within downtowns, is now being fueled by the convergence of the two largest generations in the history of America: the 79 million Baby Boomers born between 1946 and 1964, and the 77 million Millennials, who were born from 1977 to 1996.

Boomer households have been moving from the full-nest to the empty-nest life stage at an accelerating pace that will peak sometime in the next decade and continue beyond 2020. Since the first Boomer turned 50 in 1996, empty-nesters have had a substantial impact on urban, particularly downtown housing. After fueling the dramatic diffusion of the population into ever lower-density exurbs for nearly three decades, Boomers, particularly affluent Boomers, are rediscovering the merits and pleasures of urban living.

At the same time, Millennials are just leaving the nest. The Millennials are the first generation to have been largely raised in the post-'70s world of the cul-de-sac as neighborhood, the mall as village center, and the driver's license as a necessity of life. As has been the case with predecessor generations, significant numbers of Millennials are heading for the city. They are not just moving to New York, Chicago, San Francisco and the other large American cities; often priced out of these larger cities, Millennials are discovering second, third and fourth tier urban centers.

The convergence of two generations of this size—simultaneously reaching a point when urban housing matches their life stage—is unprecedented. This year, there are about 41 million Americans between the ages of 20 and 29, forecast to grow to over 44 million by 2015. In that same year, the population aged 50 to 59 will have also reached 44 million, from 38 million today. The synchronization of these two demographic waves will mean that there will be an additional eight million potential urban housing consumers nine years from now.

– Zimmerman/Volk Associates, 2006

Although lofts can accommodate work space, live-work units are typically attached buildings, each with only one principal dwelling unit that includes flexible space that can be used as office, retail, or studio space, or as an accessory dwelling unit. Live-work units could therefore be developed through adaptation of a rowhouse or even the combination of two adjacent rowhouses. The non-residential ground-floor uses could be helpful in establishing a daytime presence in neighborhoods that are largely residential, thereby adding an element of security. Live-work units can also be an important tool for revitalization, representing an opportunity for the small investor: a resident investor can lease the flex space for residential, retail or office use; a non-resident investor can lease both the main residential space or the flex space. Since experience shows that it is uncommon for retail operators to live above the store, live-work units should meet appropriate local codes permitting the legal separation of uses in order to maintain investor flexibility.

Live Work unit in Richmond

In-town neighborhoods could also accommodate new, appropriately-scaled multi-family housing types. (At the same time, these neighborhoods would gain value if the older detached houses, many of which have been subdivided into rental apartments, were to be redeveloped to provide more housing diversity: smaller houses reverting to single-family owner occupancy, and, where suitable, apartments in larger houses converting to condominium ownership.) Depending on the size of the infill opportunity, then, new construction within the in-town neighborhoods could span the full range of housing types, from rental multi-family to urban single-family detached.

Downtown Residential Mix

The housing analysis determined that in the year 2007, just over 4,000 households currently living in the defined draw areas represent the pool of potential renters/buyers of new market-rate housing units (new construction and/or adaptive reuse of formerly non-residential structures) within Downtown Richmond. As derived from the tenure and housing preferences of those draw area households, the distribution of housing types is included in the table on the next page.

Again, these numbers indicate the depth of the potential market for market-rate housing units within Downtown Richmond if appropriate housing options were available. These households represent a “lost” opportunity for the city. Without an appropriate range of available housing options in Downtown Richmond, these households have either moved elsewhere or have moved less frequently than their typical mobility rates would indicate.

Housing Type	Number of Households	Percent of Total	Capture Rate	Number of New Units
Rental Multi-Family, below market	590	14.5%	15%	89
Rental Multi-Family, market rate	900	22.3%	15%	135
For Sale Multi-Family	710	17.6%	15%	107
For Sale Single-Family Attached	400	9.9%	15%	60
For Sale Single-Family Detached, below market	310	7.7%	15%	47
For Sale Single-Family Detached, market rate	1,130	28.0%	15%	170
Total	**4,040**	**100%**	**100%**	**608**

Zimmerman/Volk Associates, Inc., 2007.

Market Capture

After nearly 20 years' experience in various cities across the country, and in the context of the target market methodology, Zimmerman/Volk Associates has determined that, for renovated and new housing units (including both adaptive re-use of existing non-residential buildings as well as new construction) within a downtown, an annual capture of between 10 and 15 percent of the potential market, depending on housing type, is achievable. Based on those capture rates, the Downtown Study Area should be able to support between 404 to 608 new housing units per year.

Over 10 years, the realization of the 10 to 15 percent market capture could mean the addition of 4,000 to 6,000 new dwelling units in the Downtown, of which up to 30 percent should be affordable to households earning at or below 80 percent of the area median family income. Based on the migration and mobility analyses, and dependent on the creation of appropriate new housing units, up to half of the 10-year market capture of 4,000 to 6,000 new dwelling units—or from 2,000 to 3,000 units—could be from households moving from outside Richmond's city limits. It is evident from this analysis that new housing development in the Downtown represents a significant opportunity to attract new residents to the city.

Target Markets for Downtown

The target markets for Downtown are comprised of three groups: young singles and couples without children, empty nesters and retirees, and non-traditional families and young parents. Of these groups, younger singles and couples make up the majority at 54 percent. Empty nesters are next at 37 percent, and non-traditional families and young parents follow at 9 percent. The market potential for the first two groups is likely to grow over the next decade.

Long-term Market for Housing Downtown

The housing analysis for Downtown examined market potential over the next five years. Because of the significant changes in the composition of American households that occurred during the 1990s, and the likelihood that significant changes will continue, both the depth and breadth of the potential market for Downtown living is likely to expand. The experience of other American cities has been that, once the Downtown residential alternative has been established, the percentage of households that will consider Downtown housing typically increases.

New Loft Conversions in Old Manchester

DOWNTOWN MARKET ANALYSIS

During the creation of the Downtown Plan, the team examined current commercial land use conditions and future market potentials for the Downtown study area. The commercial land uses are office and retail; the projection period is to 2017. The Downtown Market Analysis was prepared by ZHA, Inc. The analysis included in this chapter is an excerpt from the report prepared by ZHA. For a complete copy of the Downtown Market Analysis, please contact the City's Community Development Department.

The Downtown study area is comprised of many districts that have different market and economic characteristics and, as such, unique development potential and opportunities.
To accomplish the work, ZHA, Inc. collected and analyzed data on the study area office and retail characteristics and trends. At the outset of the assignment, ZHA, Inc. conducted a series of interviews in Richmond with City Planning and Eco¬nomic Development staff, retail store owners and operators, real estate developers, and knowledgeable real estate professionals. Subsequently, ZHA, Inc. undertook various market analysis tasks and projections.

The Metropolitan Richmond Economy

Richmond is the capital of the Commonwealth of Virginia. The city is at the center of the Richmond Metropolitan Statistical Area (MSA). The MSA, as defined by the Census Bureau, includes 16 counties and four cities, with the most populous jurisdictions being the City of Richmond and surrounding Chesterfield and Henrico counties.

Population Trends and Projections

The MSA is one of modest population growth – an increase of 8.8 percent between 2000 and 2006. In that time period, the greatest numerical increases occurred in Chesterfield, Henrico, and Hanover counties. The City of Richmond experienced a loss of population, as did the City of Petersburg. Regional population growth is expected to continue at its current levels into the future. However, larger percentage growth rates are expected to occur in some of the outer urban counties, especially Caroline, Goochland, Louisa, New Kent and Powhatan counties. The Virginia Employment Commission projects the MSA population to reach 1,233,293 persons in 2010, representing a four-year increase of 39,285 persons and a percentage increase of 3.4 percent over 2006. By 2020, the metro population is projected to reach 1,359,503 persons, representing a 10-year increase of 126,210 persons and a percentage increase of 10.2 percent over 2010.

Economic Base

The Richmond MSA has a strong and diverse economic base that has helped the community remain resilient during economic recessions. The economic job base is supported by a concentration of federal and state agencies, the headquarters of major corporations and bank-holding companies, numerous health care facilities, educational institutions, and major manufacturers. Services and government account for 58 percent of all jobs in the region (March 2007).

Major employers in the MSA include a healthy mix of finance, health care, retail, manufacturing and distribution, and telecommunications and utility private companies, as well as government organizations. The 20 largest employers together employ 81,700 persons – about 13 percent of the region's total employment. Numerous Fortune 500 and Fortune 1000 companies are headquartered in the region, including electric utility Dominion Resources, electronic retailer Circuit City, used-car retailer Car Max, Performance Food Group, Land America Financial Group, security services Brinks Corporation, Genworth Financial Group, Philip Morris USA, and others. Virginia Commonwealth University and its affiliates comprise the largest employer in the City, with over 15,000 employees between the Monroe Park and MCV Campuses.

REGIONAL COMMERCIAL MARKET

Office

The Richmond MSA has more than 25.5 million square feet of general tenant office space, excluding medical, government, and special buildings. Nearly 30 percent is located downtown. Of the total space, just over 50 percent is located in Class-A buildings. During the First Quarter of 2007, over 367,000 square feet net absorption of office space occurred and nearly 90 percent of that occurred in the suburbs (most in the northwest suburbs in the Innsbrook area). At the end of Quarter 1, 2007, over 243,000 square feet of office space was under construction – all of it in the suburbs (most in the southwest suburbs).

Retail

Like all major metropolitan areas, the Richmond MSA has a well-developed retail marketplace with all categories of retail malls and centers. Over the past five years, very few regional shopping centers have opened across the nation. However, two such centers totaling two million square feet of retail space opened in the Richmond MSA in 2003-2004. They were Short Pump Town Center and Stony Point Fashion Park. The market has a large mixture of lifestyle, specialty, community and neighborhood centers. Most large category and "big box" retailers have multiple stores throughout the market.

Entertainment

The metropolitan area has a wide array of entertainment and nightlife venues, sports attractions, arts and cultural attractions and other recreation venues. Many are located in the City of Richmond and some of them are discussed in the next section.

RECENT ECONOMIC TRENDS

Over recent years, information technology and semiconductor manufacturing firms have been attracted to the region. The increase in semiconductor firms has made the area a central point of the East Coast's "Silicon Dominion." The relocation of corporate headquarters, such as Philip Morris USA from New York, and MeadWestvaco from Stamford, Connecticut has increased the appeal of the Richmond area as a corporate center. Only five cities in the nation have more corporate headquarters offices.

Strong and continued economic growth in the region is also made evident by the expansion of existing companies. Recent major examples are Infineon Technologies and Virginia Credit Finance, Inc. The Virginia Bio-technology Research Park is a growing complex that supports research and development in drug development, medical diagnostics, biomedical engineering, forensics, and environmental analysis. The regional economic base is healthy and the outlook remains positive for the future as more companies relocate to the region and others continue to expand.

THE RICHMOND AREA AND DOWNTOWN OFFICE MARKET

Downtown Richmond Office Market Potential

The projection of the overall warranted downtown office space in 2017 is examined here under two methodologies. These are: (1) a share of the regional office market growth potential; and (2) on recent downtown construction trends.

Under the share-of-market analysis, the warranted amount of downtown general tenant office space in 2017 is 8,900,000 square feet, representing an increase of 1,700,000 square feet over the current downtown general tenant office supply. Although net absorption of new space downtown has been limited, several recent developments have added 400,000 square feet of general tenant office space to the inventory. These developments do not include various infill projects.

Under the second scenario, the warranted gross general tenant office space in 2017 is 9,600,000, representing an increase of 2,500,000 square feet over the current downtown general tenant office supply.

An additional methodology sometimes used in office market demand projections for specific market areas (i.e., a downtown) is based on net absorption trends. However, if net absorption trends were used here, the

demand projection would be for limited new office development potential or, possibly, none.

New office building leasing Downtown has been good; but, the new Class-A buildings have filled primarily as a result of lateral moves by major tenants from Class-B buildings. This pattern, involving the impact of new prime space, has not created a major negative change in overall vacancy levels Downtown.

Richmond has already seen a bank building convert to residential. In the last three to four years, Baltimore, for example, has had three 15-story-plus buildings successfully reposition as condominium or rental apartment residences. Other cities have and are experiencing the older office building conversion trend.

For purposes of this study, ZHA, Inc. will use a projected increase of 2,200,000 square feet of warranted gross general tenant office space in downtown Richmond between 2007 and 2017. The likely distribution of new office space development by study Districts is assessed in the next section.

DOWNTOWN STUDY AREA OFFICE POTENTIAL

Development in the Richmond general tenant office market sector has been heavily suburban for several decades. The major concentration of new office space has been in the northwest suburbs. Consequently, downtown office construction has been modest and the net absorption of office space limited. Much of the new building's leasing activity Downtown has been as a result of expansions by existing major tenants. In support of additional space needs, a number of businesses have upgraded their offices by relocating to Class-A buildings. The "lateral movement" trend downtown may be expected to continue in the near future. Although vacancy levels have increased in Class-B and Class-C buildings, Class-A space is well leased. As is happening in many cities, older Class-B and Class-C buildings will either be converted to residential uses or demolished.

Downtown Richmond is reviving itself from the gloom of past decades. There is substantial new construction of offices, hotels, entertainment venues, and rental and for-sale housing throughout the study area. As housing, entertainment and retail are increasingly established Downtown the office market will follow.

The new Downtown Richmond is a dynamic, ever-evolving place. Obviously, creating a redevelopment downtown is costly and time-consuming. Financial incentives are required to assist with redevelopment. They include:

- Increase the pace of development of downtown housing units both to provide a market base and employment pool;
- Reduce office vacancy rates through public commitment to supply lower-cost parking;
- Improve downtown traffic and transit to improve how people move into and around downtown;
- Establish mixed-use neighborhoods to help revitalize areas and create more vibrancy – especially along Broad Street; and,
- Provide an ongoing strategy as to the necessity of taking action to reinforce downtown's distinct urban character.

There are a variety of office space users that could select study area sites and locations during the study period to 2017. Some sources are not market-driven but could develop office space. Their possible office space needs cannot be predicted.
The downtown study area office user sources are as follows:

- Government
- Institutions
- Corporations
- Expansion of Local Businesses
- Attracted New Businesses
- Residential- and Employment-Driven Business and Financial Services

Possible new space needs by government, institutions and corporations are made on the basis of leadership decisions. The decisions are based on economic, location-related and other considerations. Nevertheless, these sources could develop significant new office projects that would employ thousands of people. In turn, the new employees would be prospective consumers for downtown housing, retail and entertainment.

The 2.2 million square feet of supportable new general-tenant office space to 2017 will be in support of the spatial needs required by expanding businesses, attracted new businesses, and business and financial services generated by residential and employment growth.

DISTRIBUTION OF FUTURE OFFICES BY DOWNTOWN DISTRICTS

This discussion indicates a likely distribution of new office development downtown. For general tenant space, parameters of quantity are estimated.

Capitol District

The Capitol District contains most of the local, state, and federal government facilities in downtown Richmond. The District is expected to continue to be the location of choice by government leaders for future office needs. Possibly, additional government space to 2017 could not be accommodated in the largely built District. This would create a necessity to develop new space outside the District, perhaps to the east of I-95. New office developers here and elsewhere downtown should be encouraged to provide ground-level retail and services that are supportable of the employment base.

VCU District

The VCU District encompasses a large and growing University complex. As VCU expands, it will want to do so within the District or proximate to it. New demand for office, research and other facilities is of some concern for neighboring districts, which are primarily residential in character.

Central Office District

There will continue to be the focal point for new Class-A general-tenant office development downtown. Some market shifts are evident that suggest first-class office space can be successfully leased elsewhere in the study area. The major tenant relocated from an older downtown building. Other parts of the study area have potential for new office space. ZHA, Inc. projects that the Central Office District can reasonably capture 1,000,000 square feet of new office construction between 2008 and 2017. The breakout for this market capture is:

2008-2012	2013-2017
400,000 Square Feet	*600,000 Square Feet*

Shockoe

The rehabilitated Edgeworth Building (150,000 square feet) in the Tobacco Row portion of Shockoe Bottom has been leased. The leasing of the sizable Edgeworth Building has established the viability of the Shockoe District accommodating significant new office development – probably in rehab space on Tobacco Row or in new construction at Rocketts Landing. ZHA, Inc. projects that the Shockoe District can reasonably capture 450,000 square feet of new office construction between 2008 and 2017. The breakout for this market capture is:

2008-2012	2013-2017
200,000 Square Feet	*250,000 Square Feet*

Manchester

The Manchester District, directly across the James River from the downtown office concentrations, represents an excellent location for new offices. The District is revitalizing and contains many underutilized properties and significant vacant land. The northern area of the District, between W. Commerce Road and Cowardin Avenue, lends itself as a strategic office location. This setting is easily accessible to downtown via the 15th, 9th,

and Belvidere Street bridges. It has good regional accessibility from the south and west via Jefferson Davis Highway (U.S. 1, 301), Hull Street Road (U.S. 360) and, Midlothian Turnpike (U.S. 60). A good opportunity also exists to develop professional and service office space as part of the mixed-use development of buildings along Hull Street.

ZHA, Inc. projects that the Manchester District office development can reasonably capture 450,000 square feet of new office construction between 2008 and 2017. The breakout for this market capture is:

2008-2012	2013-2017
150,000 Square Feet	*300,000 Square Feet*

In addition, mixed-use development along Hull Street can reasonably capture 125,000 square feet of new office construction between 2008 and 2017.

A further note – business and services office needs will be supportable through increased employment within other districts. Some demand could occur along the Broad Street corridor between Jackson Ward and Monroe Ward. Considerable vacant land in Monroe Ward lends itself to new residential development. This factor will generate neighborhood office and retail demand – possibly in mixed-use projects. Similar demand could be generated in the City Center District. ZHA, Inc. projects that these districts can reasonably capture 175,000 square feet of new office construction between 2008 and 2017.

UNDERSTANDING THE SCOPE AND PROBING DOWNTOWN RETAIL IDEAS

From a metro status, the Richmond retail situation is vastly over-stored with almost 67 square feet of space per capita as compared to a national average of about 21 square feet. The Richmond suburbs are experiencing lower productivity now and future expectations are bleak; therefore, in all probability, they are no threat to the Downtown market any longer. In fact, if appropriately managed, it could be very appealing for niche stores types to be enticed into a downtown market with the right supporting conditions.

The total retail inventory exceeded 66 million square feet in March 2007. The overall vacancy rate was a low 5.8 percent. Over 1,270,000 square feet of retail space was under construction and more retail is planned for development in the near future.

RETAIL IN A METRO CONTEXT

Mixed-use developments (retail, office, other commercial and residential) are being embraced by developers, tenants, and residents. This is true not only for large sites such as Watkins Centre, West Broad Village and Rocketts Landing, but, also, for smaller projects such as the Village of Amberleigh. Also, open-air formats are growing in popularity.

According to industry sources, the most significant development trend at this time is the considerable retail growth around the Route 288 loop, which spans from western Henrico south to Chesterfield counties. Residential housing is growing rapidly along the 288 corridor in that Northwest submarket. The Northwest sub¬market has nearly 1,200,000 square feet of retail under construction.

Approximately 2,000 malls currently exist in the U.S. (regional/super-regional), yet only two super-regionals are currently under construction. Experts state “The length of time that people stay in the mall is lessening each year, and is now down to much less than an hour. Meanwhile, in the past five years, retailers, department stores, and mall owners have all been busy consolidating, buying one another and not paying attention to their customers.”

RETAIL CITY/METRO SALES COMPARISONS

Retail sales in Richmond vary as a percent of regional sales. In 2002 the City captured nearly 30 percent of all eating/drinking sales in the metro area. The City captured slightly over 18 percent of convenience goods

sales. Considering the long decline in shoppers- goods stores and sales, the City's share of that category (21.1 percent) is as good as might be expected. Convenience goods sales may suggest that some areas of the City are under-stored in food, pharmacy and other convenience stores. The strong capture of eating/drinking sales indicates the continuing appeal of the City as a dining and entertainment destination.

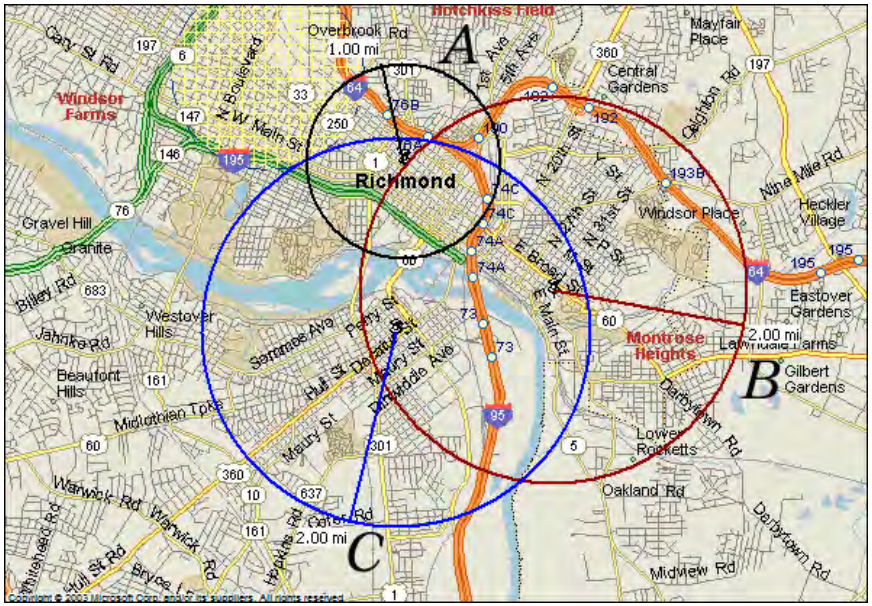
DOWNTOWN RETAIL PERFORMANCE IN METRO CONTEXT

Downtown Study Area neighborhoods are repopulating. As this economic factor expands, the demand for local-serving retail will grow. Trade areas have been delineated for three locations. Trade Area A radiates out one mile from the intersection of Broad and Adams Streets (between the Jackson Ward and Monroe Ward neighborhoods). Trade Area B radiates out two miles from the intersection of Franklin and 31st Streets (Shockoe Bottom). Trade Area C radiates out two miles from the intersection of Hull and 12th Streets (Manchester). Together these three Trade Areas cover the neighborhoods of the Study Area.

The analysis for each Trade Area presents key retail-related demographics: population, households, average household income, retail expenditure potential for shoppers goods, convenience goods, and eating/drinking categories. It also presents warranted supportable space for each category based on the expenditure potential.

Trade Area A radiates from the intersection of Broad & Adams Streets;
Trade Area B radiates from Franklin and 31st Streets.
Trade Area C radiates from Hull and 12th Streets

Trade Area A: This area takes in the primarily residential districts of Jackson Ward, Monroe Ward and portions of adjacent districts. New housing development has been occurring and is expected to continue. Table 10 presents the retail analysis for Trade Area A. The Trade Area has an estimated population of 16,500 persons now. It is expected to increase to 21,700 persons by 2017. Households, the key demographic unit combined with average household income for projecting retail expenditure



potentials, will increase from 6,700 to 9,000 during the study period. Average household incomes are below state and national averages. Newer residents have higher average household income levels. Overall, the incomes will increase at a faster rate between now and 2017 than shown by the Census (2000 and 2006) estimates. It is anticipated that shoppers-goods retail expenditure potential will increase by $22.9 million between now and 2017. The increase for convenience goods retail will be $41.6 million. For eating/drinking away from home, the increase in expenditure potential will be $12.5 million.

The increases in retail expenditure potential generate a warranted increase of 181,400 square feet of retail space. Not all of this potential will be fulfilled in the Trade Area, especially for shoppers-goods. The major portion of shoppers-goods potential is for department stores and other large general merchandise outlets.

It is estimated that 40,000 to 50,000 square feet of new shoppers goods space (primarily limited clothing, home furnishings, sporting goods, book and similar stores) is warranted. It is estimated that 60,000 to 75,000

square feet of new convenience goods space (primarily grocery, other food, health and personal services stores) is supportable. It is estimated that 12,000 to 15,000 square feet of new neighborhood restaurant space is warranted. The total new retail space potential for Trade Area A is between 112,000 and 140,000 square feet. Development opportunities are available on vacant land and infill locations in the area.

Trade Area B: This Trade Area takes in a considerable residential and commercial mixed-use development. The Trade Area centers on Shockoe Bottom and includes portions of other Districts as well as a small piece of bordering Henrico County. The analysis here focuses on residential population needs. Shockoe Bottom is, of course, a significant dining and entertainment District.

The Trade Area's estimated 2007 population is 40,200. It is expected to increase to 46,700 by 2017. The current 15,500 households are expected to increase to 18,700 by 2017. Average household income is currently $42,000 (partly affected by low-income public housing projects). The average will grow faster than for Sector A because of an increase in higher priced housing being developed. It will average $56,000 by 2017.

It is anticipated that shoppers goods retail expenditure potential will increase by $47.9 million between now and 2017. The increase for convenience goods retail will be $87.2 million. For eating/drinking away from home, the increase in expenditure potential will be $26.1 million.

As for Sector A, the increase in generated warranted space (380,600 square feet) will not be totally satisfied within the Trade Area. Against the warranted space numbers in the table, it is estimated that 90,000 to 100,000 square feet of new shoppers goods space is warranted. It is estimated that 140,000 to 150,000 square feet of new convenience goods space is supportable. It is estimated that 25,000 to 30,000 square feet of new neighborhood restaurant space is warranted. The total new retail space potential for Trade Area B is between 255,000 and 280,000 square feet. Development opportunities are available in ground-level mixed-use developments, retail centers on vacant land and in rehabilitated buildings.
Trade Area C: This Trade Area takes in the Manchester District and adjacent areas. Manchester is an area undergoing significant changes, especially from industrial uses to residential and commercial. The District has considerable vacant land and developer interest. The Trade Area's estimated population will grow from 35,300 to 42,000 between now and 2017. The number of households will increase from 14,700 to 17,500. Average household income will increase from $42,300 to $54,700.

It is anticipated that shoppers-goods retail expenditure potential will increase by $40.6 million between now and 2017. The increase for convenience goods retail will be $73.8 million. For eating/drinking away from home, the increase will be $22.2 million.

As for the other sectors, the increase in warranted space (322,500 square feet) will not be totally satisfied within the Trade Area. Against the warranted space numbers in the table, it is estimated that 70,000 to 80,000 square feet of new shoppers goods space is warranted. It is estimated that 125,000 to 135,000 square feet of new convenience goods space is supportable. It is estimated that 20,000 to 25,000 square feet of new neighborhood restaurant space is warranted. The total new retail space potential for Trade Area C is between 215,000 and 240,000 square feet.

In summary, there are ample neighborhood-related retail opportunities throughout the Downtown Study Area. The total Study Area spatial market summary of development potential by retail categories is as follows — expects overlapping as to locations in coming years:

Retail Category	**Warranted New Space (Square Feet) to 2017**
Shoppers Goods	200,000 - 230,000
Convenience Goods	325,000 - 360,000
Eating/Drinking	57,000 - 70,000
Total	582,000 - 660,000

SPECIAL LOCATION(S) COMMENTS

Over the last two decades, Downtown Richmond, along with many other cities across the country, has suffered a steady decline in retail and no

longer functions as the central shopping district that it once was. This is particularly applicable to the Broad/Grace streets, and Central Core Market areas. The general changes in retail, fueled by suburban malls, has squeezed out the department stores and the national and local small- and middle-market stores that once accounted for much of the downtown retail market. Most of the stores that remain downtown today are local stores with limited appeal to downtown employees.

The past is gone and downtown will not return to its once central dominance. For Richmond's leaders the question now is what qualities are needed to establish a new, exciting retail environment of a kind existing/developing in other cities. The Broad Street corridor has clusters of infill activity. It has attracted a collection of arts-related shops and restaurants. Eclectic galleries, jewelry shops, video, music and book stores, and clothiers have tenanted there. Other infill activity has occurred at various locations. Broad Street remains a challenging assignment to bring productivity and stability to this vital area.

GAUGING MARKET SUPPORT FOR REVITALIZATION

On the positive market side, Downtown Richmond has some key market features or "traffic generators" that are important to the success of retail. The generators include museums and cultural facilities, an active entertainment sector, a growing population base, between 70,000 and 80,000 downtown employees, and many visitors.

Some key industry points are appropriate for outlining a market strategy for revitalizing downtown Richmond's retail core.

- Retailers need a reason to move downtown. When they are convinced there is a strong market for their goods and services they will return. In recent years, department stores and big boxes have developed stores in numerous downtowns. Past experience shows that as residential development accelerates in a City's downtown, retail follows.
- First-floor retail is important. Street-level stores create visible appeal and pedestrian traffic. It also creates a retail environment along the street.
- Mixed-use development helps to create a thriving location. Down town neighborhoods that combine residential, retail, recreational and entertainment venues create a lively 24/7 environment.
- For reviving downtown retail, efforts should be made to attract upscale shops, restaurants and entertainment venues to renew the image of the downtown retail base in line with the developing strong consumer base.

Successful new downtown shoppers-goods-driven retail projects include numerous opportunities when the market is right. This includes upscale boutique concentrations, sometimes in historic buildings, thematic districts, a new mall with upscale shops and anchors, big-box stores (sometimes on second/third levels of a mixed-use development), and others.

What types of retailers are expanding this year, and what types are standing pat, and are they viewing inner City locations favorable?

- High profile stores like Target, Kohl's and JC Penny are aggressively focusing on outlying strip center stores and potential inner City/downtown location in multiple floors operations.
- Market/tech stuff is causing growth in cellular and related IT accessories.
- A variety of restaurants are emerging and find downtown attractive including fast-food, quick casual and sit-down formats.
- Some older names, Blockbuster, and furniture/furnishings stores are downsizing aiming to upper value markets such as RoomsToGo and RoomStore.

Trends recently indicate that most chains are trying for the first time in 40 years to find environmental variety and authenticity - a true sense of "realness" (according to Heepes of StreetWorks, LLC), and that is just what downtown Richmond needs. Today, with incentives properly offered,

downtown could emerge as the best, provided we enhance our physical store forms, merchandise standards and much more.

Larger stores are considering multi-floor operations, curbside construction, and are beginning to "pay to play" in terms of urban design, creative store layouts, and other costs. In downtown Stamford, there's a new Target, which looks like a department store with small shops at the sidewalk, four levels of parking, and a two-level store on top.

In summary, it is important to add the real service business like hair stylists; food businesses; unique impulse retail; wine stores; bakeries, art galleries; and most importantly things that make interesting regional destinations, like libraries and theaters combined with great public spaces. Those are the tools to make memorable places. The role of retail is simply to get the people there, not to be the main attraction or experience.

The uses in part are reacting to the significant market sectors or components that are altering market opportunities. They are new downtown employees, increasing visitors to downtown, local-area residents and students. The potential contribution of the first two can be quantified.

Downtown Employees are a large, natural source of patronage for retail and eating/drinking businesses during the work day and after. Their annual expenditure potential is considerable. In downtowns where there is a limited mix of shopping and food choices, employee expenditure potential is not fully realized. This is the situation in Richmond.

The amount of money downtown employees spend annually in several more extensive developed retail environments elsewhere is well acknowledged. The International Council of Shopping Centers (ICSC) periodically surveys downtown employees across the country and estimates their average expenditures in downtowns with limited retail offerings and those with ample offerings. The latest ICSC survey has been used in the following analysis.

The current employee expenditure potential is not fully realized in downtown Richmond. The analysis shows that current expenditure potential will increase from $18.2 million to $27.0 million, or by $8.8 million between 2007 and 2017. If fully realized in 2017, employee expenditure potential alone will support the following amounts of retail space at industry levels of sales per square foot.

Category	Warranted New Space (Square Feet)
Food	225,000
Shoppers Goods	250,000
Personal Serv./Conv.	150,000
Total	625,000

Richmond Visitor statistics for 2005 it is estimated that the number of visitors to downtown Richmond in 2007 will be 3,650,000 persons. This includes business travels, domestic and international visitors, convention attendees, and others. The average expenditures made by visitors vary by the reasons they are downtown. If fully realized in 2007, visitor expenditure potential alone will support the following amounts of retail space at industry levels of sales per square foot.

Category	Warranted New Space (Square Feet)
Food/Restaurant	1,300,000
Shoppers Goods	1,450,000
Entertainment	750,000
Total	3,500,000

A small amount of the above shoppers-goods space may be in personal services/convenience goods. Similarly, some entertainment space may be in food. In summary, the total amount of supportable retail in downtown Richmond warranted by employee and visitor expenditure potentials alone in 2017 is:

Category	Warranted New Space (Square Feet)
Food/Restaurant	1,525,000
Shoppers Goods	1,700,000
Personal Serv./Conv.	150,000
Entertainment	750,000
Total	4,125,000

Depending on the types and quality of retail offerings available to consumers in downtown Richmond, the attraction of a market share by residents could increase the mix by 10 to 20 percent. Students will add some additional support for small restaurants, deli's, pizza places, etc., and for some shoppers-goods and personal services.

SHIFTING ATTITUDES AND CONSUMER ASPIRATIONS

As Downtown Richmond prepares for retail solicitation and procurement to implement the Downtown Plan, we must appreciate the altering climate of retailing and the customer wishes. In fact, things are changing so quickly that retailers need to aggressively stay alert to shifting patterns. The wrong merchandise or the same tired product is going to be treated the same by the customer as "an empty shelf." Space between trends is getting shorter and shorter, and the retailer must seek a continuous sense of product newness. Retailers are turning increasing to in-store surveys, direct mailings, use of online surveys, and even selective call center usage to tag altering trends in merchandise.

ZHA's interviews indicate that retailers are also relying on information gelded from credit cards, loyalty cards, and unique customer identifications. Info yields include non-confidential data such as frequency of visitations, how much is being spent on the average purchase, and what they like to buy and how often. ZHA's other data sources point out that retailers in downtown Richmond need to be more aware of:

- Using personalized attention to aid in overriding patrons' dis trust of prices and sales.
- Being more sensitive to complaints as customers are slow to forget, refusing to return to a shop - in other words, no room is left for merchant errors.
- Patrons, while time starved, often are willing to go out of their way to shop where they know they will get what they want or get the best service.
- Being continually aware that the suburbs are always a work able option.

Another modifying condition favoring downtown is changing demographic characteristics. Three powerful demographic trends will cause profound change:

- It is predicted that the number of Americans age 55 and older will almost double between now and 2030 -- from 60 million today (21 percent of the total US population) to 107.6 million (31 percent of the population).
- During that same time period, the number of Americans over 65 will more than double, from 34.8 million in 2000 (12 percent of the population) to 70.3 million in 2030 (20 percent of the total population). This aging of America will present many opportunities for small independents that may choose to target this growing segment. New products, new services and new retail concepts will be introduced to capture this growth.
- Born between 1981 and 1995, this new Generation Y numbers 57 million. It is the largest consumer group in the history of the U.S. and represents a dominant future market. Many of the most popular traditional brands are having a tough time appealing to this group who gravitate to all things new - to brands that understand them and speak their language. It drives diversity and the ability to know what's new in an instant. Companies unable to relate to this group will obviously miss out on a huge potential opportunity.

implementation 7

The City of Richmond, Downtown organizations, business owners, property owners, and residents should all continue to work together to bring about the future Downtown.

The vision for Downtown Richmond has been documented in the preceding chapters of this report through plans, illustrations, and text. This chapter identifies the necessary steps for realizing the place depicted in the imagery, transforming the community vision into a built reality. The following steps address policy recommendations, regulatory changes, planning strategies, capital improvement projects, and various funding mechanisms. Those steps identified as priorities for implementation in the near-term have been called out in the beginning of the chapter. The City of Richmond should continue the programs that are already in place that support the objectives identified in the Plan, such as the real estate tax abatement program, the Commercial Area Revitalization Effort (CARE) program, special assessment districts, and the Neighborhoods in Bloom Revolving Loan Fund.

PRIORITY STEPS FOR IMPLEMENTATION

There are numerous recommendations in this chapter related to the implementation of the Plan. While all are important toward its ultimate success, there are key priorities that were identified during the development of the Plan. They are as follows (timeline for implementation listed at the end of each item):

Maintain and improve the basic infrastructure system of parks, roads, sidewalks, street lights, and street furniture Downtown to create a better "first impression" of Richmond. A concerted effort to focus new and existing resources on the Downtown infrastructure system would improve the quality of life for residents and workers and provide a better travel experience for visitors. This project should be funded each year over the next five years for work along key corridors, using existing and/or newly dedicated Capital Improvement Plan funds. Detailed estimates should be developed on an annual basis to support funding requests. (1 to 5 years)

Acquire targeted properties for open space. The City should examine the possibility of acquiring key properties over the near-term, as property values continue to rise. Depending on the appraised value of these properties, the City could allocate up to $2.5 million per year. (1 to 5 years)

Create a detailed design plan for both banks of the riverfront from the Lee Bridge downstream to the City line/Ancarrow's Landing. The plan should identify public access points, open spaces, specific development concepts/landscape treatments, and trail development. This effort should not delay the acquisition of open space along the river, but will inform the programming and design of those future public spaces. Preparations for the plan should begin as soon as practicable. The cost of the plan is estimated between $250,000 and $450,000 for professional landscape and urban design services. (1 year)

Begin a phased conversion of one-way streets to two-way traffic. Certain streets in Shockoe and Manchester are identified as the first phase of the effort. Many of these streets are controlled by stop signs – not traffic signals – and are therefore less expensive to convert. The streets should serve as a pilot for the potential reversion of additional streets to two-

way traffic. These areas will require additional study by the City's traffic engineering professionals and discussion with the community beyond what has been completed as part of this Plan. Up to $100,000 should be allocated to hire an expert in the field to complete the necessary due diligence, engineering, and design. (1 year)

Develop and implement a Form-Based Code. In furtherance of the vision outlined in this Plan, and in accordance with the need for predictability in development expressed by the community and investors, the City should develop a Form-Based Code and map it in a portion of Downtown, starting with a test neighborhood such as Manchester or East Broad Street, and if successful, continue implementing it throughout Downtown. Drafting of the code, facilitating a public process, and carrying through to the City Planning Commission and City Council is estimated at up to $100,000. (1 year)

Plant and maintain additional trees. Initiate an aggressive street tree campaign, allocating up to $250,000 per year over the first five years to replenish Downtown's tree canopy. (1 to 5 years)

Implement a wayfinding signage system for Downtown. Build upon the program developed for the Community Development Authority in the City Center. Up to $40,000 should be allocated per year to expand the system out from the City Center and to complement current federal funding. (1 to 5 years)

Improve pedestrian/cyclist facilities on bridges and install additional bike racks Downtown. As bicycling continues to increase in popularity, not only for recreation, but as a means of commuting, facilities to accommodate riders should keep up with demand. Up to $40,000 per year should be allocated for these improvements. (1 to 5 years)

Encourage the creation of additional City Old and Historic Districts. While ultimately relying on individual neighborhoods to initiate, the City should explore additional incentives to promote the nomination of local historic districts to match the state and federal districts already designated Downtown. (1 to 5 years)

Continue development and implementation of programs to support affordable housing. Utilize programs such as the Affordable Dwelling Unit program, the Affordable Housing Trust Fund, and other creative financing tools to help meet the needs of current and future Downtown residents. The provision of affordable housing that is attainable to persons of a range of incomes will ensure that Downtown Richmond remains a healthy, vibrant place for all. (1 to 5 years)

Implement Monroe Park Master Plan (2008). The Plan outlines capital improvements and programmatic initiatives that support the continued development of the park as a cultural and recreational center for the surrounding neighborhoods and university community. The Plan is recommended for a phased implementation. (1 to 5 years)

Conduct a feasibility study to determine the highest and best use of the two-block area including the Blues Armory Complex and former food court structure at Sixth Street. (1 year)

At the end of five years, the Plan should be updated and implementation priorities reconsidered. Monitoring of the progress of the Plan in the meantime, should be conducted through another implementation priority, the community feedback loop. Through regular discussions with Downtown stakeholders, the implementation of the Plan can stay on target and the vision developed by the community can remain relevant over time.

POLICY RECOMMENDATIONS & REGULATORY CHANGES

1. Adopt the Plan

The City Planning Commission and City Council should adopt the Richmond Downtown Plan as an amendment to the citywide Richmond Master Plan. The updated 2007 Downtown Plan is to replace the 2004 Downtown Master Plan. The adoption of the Plan will send an important message to property owners and residents that the City and the community support the Plan and that the City intends to implement its principles. By adopting the Plan, City staff and members of the Planning Commission will have a clear direction to instruct applicants to meet the goals of the Plan.

2. Amend the Richmond Zoning Ordinance to allow a Form-Based Code

The review of existing zoning regulations and site analysis indicated that in many cases the zoning in Downtown Richmond does not match either the existing use or the goals of the community. Appropriate zoning encourages development by providing the right amount of certainty. A zoning process that requires additional hearings and variances increases the risk of time and money to developers. By establishing clear zoning that supports the City's vision and provides a visual guide to design criteria, investors can be sufficiently certain that their project will be approved. Neighbors can be assured that what will develop will be desirable, not harmful, to the existing Downtown neighborhoods. The City should amend the land development regulations for Downtown to include a Form-Based Code for Downtown Richmond.

A Form-Based Code is a land development regulatory tool that places primary emphasis on the physical form of the built environment with the end goal of producing a specific community character. Conventional zoning strictly controls land-use, through abstract regulatory statistics, which can result in very different physical environments. The root principle of Form-Based Coding is that design is more important than land use. Simple and clear graphic prescriptions for building height, how a building is placed on site, and building elements (such as location of windows, doors, etc) are used to control development. Land use is not to be ignored in form-based coding, but regulated using broad parameters that can better respond to market economics, while also restricting the locations of certain undesirable combinations of uses.

A Form-Based Code in Richmond should be implemented on a limited basis for neighborhoods or corridors as opposed to a complete remapping of Downtown zoning districts. This would allow the neighborhoods and the development community the opportunity to gradually become accustomed to this new zoning tool. Some jurisdictions (i.e. Arlington, Virginia) have implemented a Form-Based Code as a voluntary zoning overlay, leaving the base zoning intact, while offering incentives to encourage the use of the Form-Based option. This approach may be appropriate for Richmond.

The Manchester District should be the initial neighborhood considered for the Form-Based Code as it contains a large number of vacant lots, numerous infill development opportunities, and a wide range of building types and uses. Based upon the performance of the code in meeting community objectives, Richmond could consider further amending the Zoning Ordinance to include other areas under a Form-Based Code, such as the East Broad Street area in Shockoe Bottom. If the implementation of a Form-Based Code in Richmond expands from this initial implementation, it would not only address urban infill in other areas of Downtown, but could potentially also meet the unique development needs of Downtown's large property owners, such as major corporations and other institutions.

The City's Zoning Ordinance should be amended to include a Form-Based Code for Downtown Richmond.

The Form-Based Code would allow by-right development of property in congruence with standards set forth in the code. The Form Based Code would streamline the process of getting projects approved because of the investment in public process and consensus that the Downtown Plan incorporates. Nonetheless, the implementation of a Form-Based Code in Richmond would require community input discussions and formal public hearings beyond those conducted as a part of the Downtown Plan process.

3. Streamline Development Procedures & Approvals Process
Part of attracting quality development consists of making the process of approvals transparent, responsible, and reasonably expeditious. This is typically done through promoting inter-departmental cooperation on development approvals and appointing a lead person for each application to guide it through the process. The team of City staff would give Downtown projects special priority in reviews and inspections involved in the permitting process, provided adequate staffing is in place. The team would handle requests for assistance with the Fire Marshal, Building Permits, Zoning, Public Utilities, Public Works, and other applicable inspecting units. This designation will speed up processing time and improve accountability. It is recommended that the City undertake all appropriate methods for streamlining development procedures and the approvals process and that a Downtown Development Coordinator position be created to oversee the process and ensure that reforms are successful.

Pre-application assessment inspections provide potential owners/tenants with information about the suitability of a building for their intended use.

New businesses now have a better chance to determine the likelihood of a successful start in downtown buildings as a result of these inspections.

4. Appoint a Downtown Development Coordinator
The City should create a Downtown Development Coordinator staff position to begin the implementation of the Downtown Plan. This position would be held within the Community Development Department and the person hired would have a full understanding of the principles and intent of the Plan. The Downtown Development Coordinator would oversee the application of the Form-Based Code and the streamlining of the permit process for Downtown properties. This person would work with developers and property owners to strategize on redevelopment opportunities Downtown, as well as guide projects through the approval process to ensure success. In addition to working with the community and developers, the Development Coordinator would work closely with the City's Economic Development staff and Venture Richmond to coordinate economic development efforts of attracting new businesses & residents Downtown.

PLANNING STRATEGIES

5. Conduct Annual Inventories of Land Uses
An annual inventory of land use allows prospective developers and businesses to understand the supply and thus the need or demand for various land uses. The inventories should include housing, retail, office, industrial, and warehouse uses, among others. The inventories would show opportunities in the market as well as trends of current redevelopment. The City should conduct annual inventories of its land use, coordinated with the City Assessor's Office, using the City's Geographic Information System (GIS) system, and make the results available on the City's website.

6. Develop an Infill Strategy
A strategy should be developed to target vacant, under utilized or "soft" properties that detract from the quality of Downtown. Vacant land and derelict buildings offer opportunities for change and redevelopment. In order to seize these opportunities it is necessary to inventory and map the

locations of vacant land and derelict buildings and then target new users and promote the inventoried opportunities to new investors. The City can then use its extensive GIS system to begin to identify a list of properties that might benefit from infill development; this can be done as a part of the annual inventory of land use recommended above.

7. Establish a Parcel Assembly Program

The Richmond Redevelopment and Housing Authority (RRHA), through enabling authority granted by the Commonwealth of Virginia to exercise eminent domain, has the ability to consolidate parcels of land for the purposes of redevelopment. One strategy for creating new development is the identification of opportunity sites and the consolidation of parcels to allow development at a scale feasible for the type of use desired. Similarly, the City should establish a land bank under the RRHA, which uses revolving funds to acquire and assemble key sites and solicit preferred development alternatives. It is suggested that the City and other economic development partners collaborate on the formation of a land bank to acquire key opportunity parcels Downtown for preservation, new development, or green spaces. This format would greatly extend the funding ability of both the City and RRHA by inviting collaboration and funding from a variety of sources. A parcel assembly program should allow for participation by civic associations and the general public during the creation of redevelopment plans. Specific timelines for the acquisition and redevelopment/disposition of properties should be clearly outlined from the outset of the effort. The identification of sites for redevelopment can be accomplished through the use of the City's Geographic Information System (GIS) and analysis of the factors required for redevelopment.

8. Eliminate or Reduce Parking Requirements

The supply and future demand of parking within Downtown Richmond can be optimized with a combination of management and partnerships. On-street, parallel parking should be promoted as the most pedestrian-friendly form of downtown parking. It provides direct access to the adjacent commercial establishments and provides a traffic calming effect on urban streets.

Although lack of parking is a recurring complaint in many cities, detailed analysis of parking capacity typically reveals under-utilization of existing parking. Parking requirements have often had the unintended consequence of complicating residential feasibility; even halting some otherwise viable proposed developments. A number of cities have recently begun to eliminate parking requirements. For example, Portland, Oregon now exempts downtown residential development from required off-street parking; among smaller cities nationwide, Olympia, Washington, Lafayette, Louisiana and Mobile, Alabama have no minimum parking requirement in their downtowns.

Surface parking lots, while they provide low cost vehicle storage, are detrimental to the walkability of Downtown streets. The long-term goal of Downtown development should be to transform all sizable surface lots to underground or above-ground structured parking with liner buildings. Parking management and the provision of structured parking is necessary in order to have businesses without parking lots between them. Many of the above-ground garages found in Downtown today have blank walls facing onto streets. These garages, mostly privately built to support an eight-hour downtown office worker, create a sense of sterility, diminished opportunity, and reflect poor urban planning. The City should explore opportunities to partner on these properties to achieve desired outcomes. Action can be achieved by negotiations/or acquiring portions of the garage (condominium regime) for reuse as retail.

Many businesses, however, might have difficulty affording the cost of structured parking. One of the projects to be undertaken by the city, therefore, is the provision of shared structured parking. By the use of shared parking and parking demand management agreements, the cost of providing parking Downtown can be substantially reduced for all of the participating parties. The city should identify sites for shared parking and meet with property owners and businesses to set the terms of use. A parking authority could facilitate these partnerships and lead the effort to create a coordinated parking system in Downtown Richmond. Demand management agreements can be negotiated to determine the end cost. The overall number of required parking spaces could be significantly

reduced if business and residential development shared parking facilities, freeing more land for economic development. An open dialogue with input from both the residential and business communities is necessary to successfully implement a shared parking program and reduced parking requirements. To further assist Downtown patrons to utilize shared parking, a valet service should be considered for restaurant and entertainment venues. Valet parking can become a Downtown amenity. It will help to foster shared parking and it will help to remove the perception of insufficient parking Downtown. Subsidies from the City and local businesses may be required initially, but over time the program will pay for itself through increased parking revenue.

Resident parking on designated streets should be expanded beyond the Fan District and Carver neighborhood to accommodate the number of dwelling units created through adaptive re-use of existing structures or in other circumstances where no on-site parking spaces can be created; permits should be issued at the cost of administering the program, including the added cost of enforcement.

With its rich history, Downtown Richmond can benefit tremendously from Heritage Tourism.

9. Encourage the designation of additional Neighborhoods as City Old and Historic Districts

The abundant historic and architectural resources of Downtown are important to its unique character. Preservation and economic use of these resources are key to the future of Downtown. These historic structures, particularly concentrations of them, are attractions for tourists and residents, demonstrating the positive economic benefits of historic preservation. The age, quality, and character of the architecture of these distinct buildings and neighborhoods are of real value; these historic properties and areas can be guaranteed and preserved for generations to come through historic district designation. For this reason, additional neighborhoods Downtown should be considered for designation as City Old and Historic Districts. In particular, properties and neighborhoods that are currently listed on the National Register of Historic Places and the Virginia Landmarks Register such as Oregon Hill, Manchester (Hull Street), Monroe Ward, and Shockoe Bottom should be recognized as City Old and Historic Districts. The designation process is initiated by the neighborhoods, so the City should examine incentives that would encourage property owners to pursue City Old and Historic Districts.

10. Produce a Heritage Tourism Plan for Downtown and a Regional Cultural Action Plan

The City, Venture Richmond, Richmond Metropolitan Convention & Visitor's Bureau, Greater Richmond Chamber of Commerce, other regional entities, and the Commonwealth should cooperatively focus on marketing Downtown to visitors and residents. The tourism industry ranks as one of the region's largest employers, supported by travel expenditures totaling $1.84 billion region-wide in 2006, including nearly $550 million in the City of Richmond. The central element for marketing Downtown should focus on highlighting Richmond's historic heritage. An implementation task force of local and regional entities should be created to produce a heritage tourism plan for Downtown. In addition, arts and culture play a key role in Downtown and around the Richmond region, so the development of a regional cultural action plan would help to coordinate resources and create greater awareness of these important assets.

CAPITAL IMPROVEMENT PROJECTS

As described in previous sections of this report, the Downtown Plan includes a wide variety of improvements to infrastructure. These improvements will be phased over several years, with some relying on coordinated private-sector development activities. The following are general descriptions of key capital improvement projects that will be required to realize the implementation of the Downtown Plan. The following descriptions should be incorporated in upcoming capital improvement project funding.

1. Convert one-way streets to two-way travel

Reversion to two-way traffic is crucial for a vibrant pedestrian and transit community. Historically, two-way streets have slower traffic speeds than one-way streets; slower speeds make roadways safer for pedestrians and further enhance walkability Downtown. Two-way streets perform far better for storefront businesses by allowing users to pass by in two directions. During the charrette, transportation planners Hall Planning and Engineering (HPE) reviewed all existing one-way streets to determine the feasibility of one-way operation reverting to two-way operation. Of the nearly sixty one-way streets in Downtown, it was determined that only nine should remain in one-way operation. The remaining fifty streets were recommended for reversion to two-way traffic as an important step toward improving Downtown's vibrancy. It is recommended that the City allocate a minimum of $1,500,000.00 annually.

2. Plant and maintain street trees

During the charrette process, community members expressed the desire for a "greener" Downtown. Participants stressed the need for more street trees, better maintained street trees, and more park spaces Downtown. As a result, the Downtown Plan places importance on balancing infill development and redevelopment with restoring and protecting open space. Streets should be reclaimed as walkable places and a Downtown street tree campaign should be started to increase the planting of street trees and to support consistent maintenance. Downtown should be a priority for a comprehensive street tree inventory. Appropriate urban street trees should be planted in the City Center and shade trees should be planted on neighborhood streets to form a lush tree canopy. Pedestrian-scaled lighting, sidewalk improvements, street furniture, and other streetscape improvements should be funded as well. For the next 5 years or more there should be a sustained investment in the City's annual budget to restoring and maintaining Downtown's tree canopy. It is recommended that the City allocate a minimum of $500,000.00 annually.

3. Acquire targeted properties for open space

The City should actively work to acquire properties for green space to further complete the green network Downtown. Properties to acquire include those with historic, scenic, wildlife, or recreational values, among others. The City should allocate money in its capital funds and seek private sources to acquire land as depicted in the Illustrative Plan for additional trails, greens, and park space. The first priority for allocating funds should be for the acquisition of Mayo Island. The Downtown Plan recommends that a riverfront park be created at Mayo Island. There are several ways for this park to become a reality. One way is for the City to approach the property owner about purchasing the property. Another would be through a conservation easement or donation. In addition to Mayo Island, the City should pursue the purchase of the former Tarmac property and the Lehigh Cement Factory on the north side of the River. The City should purchase the properties at fair market value and negotiations with these various property owners should begin as soon as possible. The City should establish a parcel assembly program and land bank to reserve funds for the purchase of land. The City should retain a consultant to create a detailed design plan for the Riverfront, identifying public access points, specific development concepts/landscape treatments, and trail development. It is recommended that the City allocate a minimum of $2,500,000.00 annually.

4. Improve pedestrian/cyclist facilities on bridges

To provide improved connections to the river, pedestrian and cyclist facilities along the existing bridges Downtown should be added. Such facilities could include improved sidewalks and an area for walkers and cyclists to stop on the bridges and take-in the magnificent views of the James River. As a start, bike lanes should be installed on the Manchester Bridge. It is recommended that the City allocate a minimum of $20,000.00 annually.

5. Installation of additional bicycle racks Downtown

More important than bike lanes, from the perspective of encouraging walkability and bikeability, is the provision of adequate bicycle parking at either end of the bicyclist's trip. Bicycle parking is often overlooked but critical to encouraging bicycle usage. Ideally, bicycle parking should be provided in the front of a store or building, in plain sight, easily visible from inside the store or building. It is recommended that the City allocate a minimum of $20,000.00 for the purchase and installation of bike racks.

Mayo Island can be an asset to the expansion of the Richmond Park system.

6. Prepare a preliminary design for the Downtown Richmond Streetcar

In 2002, the Phase I Downtown Richmond Streetcar study was completed to examine the possibility of re-introducing the streetcar in Downtown Richmond. This study identified a general approach to bring the streetcar back and discussed routes in concept. A Phase II study in 2004 refined the work from 2002 to include: a specific selection of route alternatives (including a preferred alternative), an outline of funding scenarios, and a recommendation for next steps. The capital costs associated with the initial streetcar line would be $51,000,000 (in 2007 dollars). To begin implementation of the Phase II study, funds should be set aside to hire a consultant to prepare preliminary design and project development documentation. This would allow the project to become potentially eligible to apply for federal and state funding. The choice of whether to pursue public or private funding for construction is still under discussion at this time, but this investment will further the initiative and demonstrate the City's commitment toward the project. It is recommended that the City allocate $250,000 for the preliminary design.

7. Initiate a Wayfinding Signage Program

The City, Venture Richmond, and local business owners should work together to implement a wayfinding signage program for Downtown. The community should create a unified vision through signage to promote Downtown. Wayfinding signage will assist residents and visitors with the location of shopping, parking, historic properties, and other areas of interest. It is recommended that the City allocate $40,000.00 for the wayfinding signage program.

8. Focus on Downtown public infrastructure

The City should focus Capital Improvement Plan funding on improving the basic infrastructure in key Downtown corridors. This includes improvements to roads, curbs, sidewalks, street lighting, and street furniture. This would improve the "first impression" of Downtown to visitors and promote confidence in Downtown investors. It is recommended that the City pursue this program in a concentrated manner over the next five years and on an ongoing basis thereafter through existing and/or newly dedicated Capital Improvement Plan funds. Strategic projects, such as the Cary Street corridor between 15th and 19th Streets, should be evaluated on an annual basis and detailed estimates developed to support funding requests. Consideration should be given toward applying a portion of these funds to improve infrastructure in neighborhoods or along corridors implementing a Form-Based Code.

11. Develop a Public Art Plan
Integrating art within the community enriches the lives of citizens. This requires supporting educational opportunities and cultural arts programming efforts, including enhancing the lives of our youngest citizens. To coordinate all of the elements necessary for the successful integration of art into the community, the City should develop a Public Art Plan to guide the direction of the City's existing Percent for Arts Program, and allow for appropriate revisions to the program as needed. The plan should include an inventory of existing public art projects and their condition, as well as strategies and policies for expanding public appreciation and demand for public art, including recommendations on how to generate donations to the Public Art Fund. The plan should also include identification of future sites for public art, the establishment of design guidelines for public art, and a policy for the continued maintenance of art within the City's inventory. Art should be used to enhance public spaces in both publicly and privately owned facilities, and new development should be urged to include art in its public and semi-public areas. Encourage early collaboration among artists, architects, engineers, and owners. The plan should also provide strategies for using public art to develop the creative spirit of the community's youth.

12. Encourage arts in the community by preserving and enhancing funding for public art
In 1991, the Planning Commission, upon recommendation by City Council, appointed a Public Art Commission as the review body for the Public Art Program. Operating within the Department of Community Development, and financed with 1% of the budget of eligible City construction projects (firehouses, police precincts, courthouses and detention centers, hospitals, clinics, passenger terminals, parks, and recreation centers), this program has produced numerous permanently installed works of art at various sites throughout the City. The City must continue to consistently fund the Public Art Program, including budgeting for and annually funding the salary of a professional Public Art Coordinator, who will coordinate the implementation of a Municipal Art Plan and assist the Public Art Commission in implementing the Percent for Arts Program. The Public Art Commission and its support staff would act as a government contact point for private organizations that seek to promote arts events or education in the City.


Example of Broad Street Corridor rehabilitation

13. Incorporate sustainable design
In order to incorporate sustainable design, specific implementation measures should be considered, such as reviewing zoning regulations or creating a Director of Sustainability position, and resource requirements should be evaluated on a regular basis in order to meet the defined goals in these agreements.

FUNDING MECHANISMS

To achieve the goals of the Richmond Downtown Plan, various funding strategies will be necessary. Public funding mechanisms for redevelopment include Business Improvement Districts, grants from public and private sources, general obligation bonds approved by the public, donations, and general fund expenditures. Funding assistance for private develop-

ment and economic development includes Historic Tax Credits, Low-Income Housing Tax Credits, Federal Loan Guarantees to financial institutions, federal matching funds for Small Business Investment Corporations, federal funding to assist local Community Development Corporations, revolving loan funds set up by local financing institutions for redevelopment and business, and standard financing for market rate development. When used as an aid to new development and redevelopment, access to any or all of the funding mechanisms and incentives described in this chapter should be restricted to projects which conform with the Form-Based Code.

14. Grants

There are a number of federal grants available for redevelopment and community service purposes as well as grants for infrastructure. The City currently receives Community Development Block Grant (CDBG) and Housing Opportunities Made Equal (HOME) funds used primarily for the Neighborhoods in Bloom program that has demonstrated success in Blackwell, Carver, and Jackson Ward. Consideration could be given towards dedicating this funding to other Downtown neighborhoods. The Federal Department of Transportation also has grants for infrastructure, including funding for roads and highways and innovative transportation grants for research and implementation of alternative transportation.

Private grants from foundations are available through application by the City, community development corporations and other community oriented non-profit organizations. They are rarely given to private for-profit businesses. Finding grants can be daunting as there are literally thousands of foundations and grant givers; most organizations that rely upon such funding hire what is termed a “Development Specialist” to research the grants and write proposals.

It is suggested that the City designate an employee within the Office of Budget and Strategic Planning grant office to research and apply for grants that would assist Downtown revitalization efforts.

15. Tax Credits

Tax credits can be very powerful funding incentives for private development. There are three basic credits available now that have application in redevelopment: New Market Tax Credits; Federal Historic Rehabilitation Tax Credits; and Low-Income Housing Tax Credits. The rules for tax credit investment are laid out in the US Internal Revenue Code. Tax credits allow a dollar-for-dollar reduction in tax (not income tax) and thus are of use to anyone with a need for tax reduction. Tax credits are often sold (securitized) to investors, allowing non-profits and project owners who are unable to use them to gain funding for construction and other allowable project costs.

New Market Tax Credits permit taxpayers to receive a credit against Federal income taxes for making qualified equity investments in designated Community Development Entities (CDEs). The New Market Credit was authorized by Congressional House Bill 12392, which outlines the availability and terms of use for the tax credit (more information can be found at www.cdfifund.gov/programs/nmtc/index.asp).

State Historic Rehabilitation Tax Credits require that the property be listed on the Virginia Landmarks Registry. The Rehabilitation Tax Credits are dollar-for-dollar reductions in income tax liability for taxpayers who rehabilitate historic buildings. Credits are available from both the federal government and the State of Virginia. The amount of the credit is based on total rehabilitation costs. The state credit is 25% of eligible rehabilitation expenses. In some cases, taxpayers can qualify under both programs, allowing them to claim credits of up to 45% of their eligible rehabilitation expenses.

Federal Historic Rehabilitation Tax Credits require that the project be in a historic district as a contributing structure or that the structure is listed on the National Register of Historic Places. Rehabilitation tax credits can be applied to up to 20% of eligible project costs. Owners of historic buildings have extensively used these tax credits to aid in the revitalization of Downtown.

An informational program to familiarize developers and property owners about tax credit opportunities should be undertaken by the City. This could be performed effectively as an addition to the City web site, which is already an excellent resource. Elements would include explanations of the credits, links to credit websites, and downloadable information and application forms. Pro forma templates for calculating tax credits would also be useful for those not familiar with credits.

16. Pursue HUD Section 108 loans

Through local Community Development Block Grant (CDBG) funding, Section 108 is the loan guarantee provision of the CDBG program. Section 108 provides communities with a source of financing for economic development, housing rehabilitation, public facilities, and large-scale development projects. It is one of the most potent and important public investment tools that HUD offers to local governments. It allows local governments to transform a small portion of their CDBG funds into federally guaranteed loans large enough to pursue physical and economic revitalization projects that can renew entire neighborhoods.

Activities eligible for Section 108 financing include:

- economic development activities eligible under CDBG;
- acquisition of real property;
- rehabilitation of publicly owned real property;
- housing rehabilitation eligible under CDBG;
- construction, reconstruction, or installation of public facilities (including street, sidewalk, and other site improvements);
- related relocation, clearance, and site improvements;
- payment of interest on the guaranteed loan and issuance costs of public offerings;
- debt service reserves;
- public works and site improvements; and,
- in limited circumstances, housing construction as part of community economic development programs.

An entitlement public entity may apply for up to five times the public entity's latest approved CDBG entitlement amount, minus any outstanding Section 108 commitments and/or principal balances of Section 108 loans.

17. Small Business Investment Corporations

Small Business Investment Corporations (SBIC's) are business development venture funds for business creation and development that are regulated by the Small Business Administration. The federal government will match local funding at a three to one ratio. What this means is that if local investors, banks and others form a SBIC with $1 million in start-up funding, it may be possible to get matching grants of up to $3 million. Since the Richmond Downtown Plan calls for new businesses to provide the services that are desired by residents, the formation and operation of a Richmond SBIC could be a means for creating and retaining smaller businesses Downtown. SBICs are allowed to use funds for investment in small business and to act as an advisory resource. This means that the SBIC employees could fund and advise businesses on issues such as effective use of information technology, effective retailing practices, financial management, employee management, efficient use of resources, etc. The City and Venture Richmond should institute a committee to research the feasibility of setting up an SBIC for Jackson Ward (and other Downtown districts) and work with local investors and local and state financial institutions to fund it initially.

DOWNTOWN HOUSING STRATEGY

The City of Richmond's existing housing stock is limited in terms of type, density and design. There are many historic homes and neighborhoods that are valuable assets for the city. However, as market preferences have changed, Richmond lags behind other cities in terms of offering a wide range of housing types from which prospective residents can choose. Lack of housing choice is particularly true for people with disabilities. In an area with a significant percentage of older housing stock, meeting "Universal Design" principles is difficult, and few funds are available to address accessibility issues. Providing financial assistance and/or incentives for accessibility – particularly in the hard-to-adapt existing non-residential structures, should be a City policy. Strategies for downtown housing should be supported by targeted policies and programs that are coordinated for effective and efficient implementation.

18. Mixed-Income Development

Like the City of Richmond, a number of states, counties and cities have addressed the issue of affordable housing through what are known as inclusionary zoning policies. These policies take a number of different approaches, but four of the most successful in terms of getting substantial numbers of affordable housing units built, are in Montgomery County, Maryland, the State of New Jersey, the City of Boston, and the City of Sacramento, California.

Montgomery County requires that each development project provide a "fair share" of affordable housing, as determined by the Council on Affordable Housing (COAH). The individual municipality can achieve its fair share in a variety of ways:

- By loans to residents to create accessory apartments affordable to low-income households;
- By developing and buying the required number of units;
- By paying a per-unit amount of dollars, determined by COAH, to another municipality in the state that has a high proportion of residents living in substandard dwelling units; or
- By providing those units within new projects, through density bonuses to the developer.

Successful development of mixed-income housing rests on several critical principles that are common to the establishment of all healthy neighborhoods. Four such principles are described below.

1. Buildings must be designed to enhance the public realm, facing well defined, walkable streets, to provide "eyes on the street" that will ensure public safety.
2. The affordable and market-rate units should be interspersed throughout the building or buildings, rather than located in "affordable buildings" or single-use "pods."
3. For new construction within existing neighborhoods, logical relationships between densities and tenures must be established, from both the market perspective and the property management perspective. In the case of Park duValle, a HOPE VI redevelopment in Louisville, Kentucky, this was achieved through a progression of density on the street, moving from a six-unit apartment building on

the corner to a rental duplex or triplex building to for-sale single-family detached houses in mid-block.

4. The occupants' income level or tenure should not be discernable from the street. All units should have the same exterior quality of materials and design.

The City is in the process of developing an Affordable Dwelling Unit (ADU) Program. The program allows for increases in density during re-zoning applications for applicants that provide the inclusion of affordable housing units in development projects. The zoning portion of the program has been approved and final modifications are currently being made to the administrative portion of the program.

19. Double Bottom-Line Fund

The double bottom-line fund is an investment fund designed to produce both acceptable financial returns to the investors and measurable social returns to the community, hence, the "double bottom-line." Investors in these funds include banks, pension funds, business associations, and high net-worth individuals. The double bottom-line real estate equity fund first emerged as an investment and redevelopment tool in the 1990s, and was established as a significant funding resource in 2002 with the founding of the Bay Area Smart Growth Fund. This fund was sponsored by the Bay Area Council in San Francisco, CA, with a membership of more than 275 businesses, and was chartered to invest in commercial and residential opportunities with the potential for measurable impact in 46 targeted communities in the Bay Area.

The social objectives of most double bottom-line funds include affordable housing, public transportation, crime reduction, job creation, the provision of previously-unavailable community services, and commercial office space for small business tenants and non-profits. In a survey published in 2003 by the Research Initiative on Social Entrepreneurship (RISE), a project of the Columbia Business School, the estimated internal rates of return of 36 funds that responded to a RISE survey ranged from a negative IRR of under 10 percent to positive returns of more than 50 percent; the more typical IRR ranged between 7 and 15 percent.

For further information about the Bay Area Family of Funds, see www.bayareacouncil.org. See also www.riseproject.org for more information about double bottom-line funds in general, and methods for assessing social impacts in particular.

20. Gap Financing Pool

Compared to suburban locations, most of the infill development opportunities remaining Downtown are likely to be smaller in scale – in most cases, fewer than 75 units and usually fewer than 50. These small properties lack development efficiency; since fixed costs are spread over fewer units, the cost per unit is higher without any corresponding increase in market value. Small properties have historically had difficulties attracting public capital assistance in any form; because of their small size, they are generally, but often erroneously, considered not to have the potential for catalytic impact. This is one of the long standing ironies of American

Housing in Manchester

urban initiatives: the properties that are large enough to have gained government support are often self-contained and have significantly less impact on surrounding uses than the same number of units in smaller pedestrian-oriented properties.

Gap funding should be made available to both adaptive re-use and to new construction in Downtown Richmond; this can be done through the establishment of an Affordable Housing Trust Fund. The City sponsored trust fund should be used to complement both private and federal (CDBG, HOME) funds. The gap fund should be very flexible in order to respond to the special needs of each small, highly-individual property. Gap funding is typically structured as low-interest debt in a second or third position, but can incorporate interest accrual or other features designed to address the short-term financing impediments to residential developments that are essentially sound when viewed over the long term. The Greater Downtown Partnership of Detroit has assembled a $23 million fund to provide gap financing; the fund is currently being used to assist in the renovation and conversion of a number of downtown buildings from commercial to residential use.

21. "Arts District" Housing

A proven approach to maintaining a stock of affordable housing and live-work space for artists is the use of dedicated Low-Income Housing Tax Credits (LIHTC). In addition to household-size income qualification, prospective residents are also subject to a portfolio review to assure that at least one member of the household is a working artist. This program can be augmented with federal and state historic tax credits to redevelop existing buildings within a historic district.

Artspace Projects, Inc., based in Minneapolis, Minnesota, has redeveloped several buildings for artists in St. Paul Minneapolis and Duluth using this strategy and has provided consultation services, with planned projects, for equivalent redevelopments in Buffalo, New York; Jackson, Michigan; Salt Lake City, Utah; Detroit, Michigan; and Philadelphia, Pennsylvania, among others.

22. Sales and Income Tax Incentives for Artists

Revitalization of urban neighborhoods across the country has often been initiated by the arts community. Since resident artists are critical to the establishment of a recognizable urban arts district, they can be encouraged through targeted tax relief.

The City of Providence, Rhode Island has populated its DownCity Arts and Entertainment District through the use of sales and income tax exemptions. Artists and artisans in DownCity are exempt from state and local sales taxes; and resident artists are exempt from personal state income tax. The program has been so successful that the Rhode Island General Assembly subsequently passed legislation to establish similar districts in two other Rhode Island cities, Westerly and Pawtucket. The City of Richmond should pursue the establishment of tax incentives for artists Downtown.

23. Establish a "Live Near Your Work" Program

In order to increase homeownership opportunities, many cities have, in collaboration with local employers, universities, and medical institutions, created employer-assisted housing benefit plans for employees. Through those initiatives, employers provide eligible employees with a forgivable loan of a set amount – typically between $2,000 and $15,000, depending on local housing costs – as well as housing information and education, and innovative financing options. These initiatives are designed to promote urban revitalization by targeting dwelling units in the downtowns and in-town neighborhoods. This program has been highly successful in Baltimore, where more than 90 employers participate, and more than 2,100 families have benefited since the programs inception in 1997.
A "Live Near Your Work" Program should be organized for providing eligible families an affordable grant depending on the household's relative position to the City's median income (scale/volume of unit assisted to be determine), or the SPARC program that Richmond has been participating in the last four years—more formally called VHDA's Sponsoring Partnerships and Revitalizing Communities (SPARC) homeownership program. Functioning as the Capitol City, the Commonwealth should provide Downtown with special consideration when re-funding SPARC so a more

significant volume of selected housing can be created, enhancing the livability features for Commonwealth operations.

ECONOMIC DEVELOPMENT STRATEGY

24. Technical Business and Retail Assistance
Small startup retail businesses typically need expert assistance in areas such as store layout, lighting design, inventory controls and information systems for understanding consumer preferences. Programs could also include assistance with design and permitting to redevelop property in accordance with the proposed Form-Based Code.

Business assistance is a task to be undertaken through a Small Business Investment Corporation, BID, or the Chamber of Commerce. It is suggested that the City, Chamber, and local business collaborate in formation of an SBIC to handle this function. Because of its ability to leverage federal funding, an SBIC could potentially have a greater effect for the same amount of local funding.

Both small and large businesses make up a vibrant downtown.

25. Business Recruitment: Applying Green Business Techniques
Green Business Techniques in Downtown Richmond should be used to recruit new retail outlets, attract frustrated suburban companies, and renovate existing Downtown businesses. Green business is taking on new forms daily – Business Week Journal recently described a new "product" in Chicago called "Green Exchange Project," opening for business in 2008. This center forms the country's first shopping center for environmentally conscious and socially responsible businesses.

Downtown Richmond would benefit from the introduction of green businesses. Some possibilities include an environmentally friendly clothing company, a sustainable furniture store, or a green building supply company. The market for organic and socially responsible products is booming. Entering into this strong market makes good sense. The sales of organic foods are expected to expand by 20 percent annually over the next few years and are forecast to grow from $7.2 billion in 2005 to at least $19 billion in 2010.

The following thoughts are offered for subsequent work and detailing as to structure and legislative initiatives. In order to encourage green retail in Downtown Richmond, the following actions can be taken:

- Devise a density bonus system (use and height/floors) for all office and mixed-use/ multi-use projects Downtown if the first floor is reserved strictly for retail.
- Offer incentives for increasing the amount of pervious surfaces.
- Promote the idea that all existing or to-be-constructed above-ground parking garages should be capped with "green roofs" or equivalent ecologically innovative strategies.
- Encourage some form of bonus or forgiveness for developers seeking LEED certification in construction.

The application of green business techniques would complement the Mayor's participation in the U.S. Conference of Mayors Climate Protection Agreement.

26. Establish a Community Service Corps

The City of Richmond should form a Community Service Corps. The Community Service Corps should be established as a grassroots entity to handle infrastructure and maintenance. Corps member participants, derived from the Downtown study area, will learn new skills, earn a wage, serve their community, earn a high school equivalency diploma, and prepare themselves for post-corps college or trade apprenticeships.

In the field, corps members would stabilize vacant homes, plant community gardens, landscape vacant lots, remove graffiti, intern in youth service agencies, perform lead outreach, distribute food for food pantries, engage in recycling projects, and construct new playgrounds. Terms of service could range from three-month summer positions to year-long full-time slots. Corps members also would have the opportunity to earn a post-secondary education award that ranges up to $5,000 for example, depending on length of service.

The Community Service Corps could be melded within a City department or it could be a separate private, not-for-profit organization serving Downtown needs while participants advance themselves and improve their neighborhoods. The Downtown Richmond Corps should attempt to handle up to 60,000 man-hours, annually, if feasible.

PROMOTE DOWNTOWN

27. Promote the Richmond Downtown Plan

Continuing to spread the word about this Plan and successful initial projects is vital for implementation. A variety of media should be used: brochures, the internet, and television broadcasting are some common methods. Promote the Plan so it will start to take on a life of its own and continue to work for Richmond for years to come. The City should host its own promotion efforts, as well as work with Venture Richmond, the Chamber of Commerce, the Historic Richmond Foundation, Commonwealth of Virginia, and others.

28. Develop a Community Feedback Loop

It is important for the local community to have an on-going role in the renovation of Downtown and its neighborhoods. Typical community involvement measures such as newspaper articles and informational meetings often leave out those who have other time commitments or those who feel disenfranchised. For this reason, it is suggested that feedback loops should be created based on existing community institutions. Regular updates should be given to community church leaders and discussion groups should be created at local churches. Regular updates should also be given to neighborhood associations, service organizations, and business groups. Continued conversations with neighbors, local leaders, business owners, and others will help to guide city actions and will help spread the commitment to revitalization through direct participation.