CHAPTER TWO:

BUILDING A GREAT CAPITAL CITY: OPPORTUNITIES AND OBSTACLES FOR THE DISTRICT OF COLUMBIA

Photo by Michael Bonfigli

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As the Nation's Capital, the District of Columbia should aspire to be a great city. Vision statements and long-term plans produced by the city over the past decade demonstrate its ambitions to do so, and Washington's core of monuments, museums, broad avenues, green spaces, and unique vistas already provide remarkable experiences for millions of visitors. A preeminent capital city, however, cannot just be a great place to visit. It must also be a great place to live and work.

A truly great city has a strong local identity and special sense of place that distinguishes it from other cities and localities. Schools, recreation centers, libraries, and small businesses anchor vibrant, safe neighborhoods that are home to residents of different racial and economic backgrounds. Downtown and commercial corridors bustle with a mix of entertainment, cultural, civic, and business activities for residents, out-of-town visitors, and workers alike. An efficient public transit system runs through the city. Streets and bridges are in good condition and relatively free of heavy traffic congestion. Public spaces and parks are numerous and well-kept, while the city's natural resources are unspoiled and accessible to residents. Decent housing stock that can accommodate families of different types, sizes, and income levels exist throughout much of the city. Residents have access to quality education, health care, and jobs regardless of where they live. Additionally, a great capital city embodies the ideals and aspirations of the Nation as a whole.

Over the past decade, the District of Columbia has made huge strides towards this vision of a great city. The District's central core has undergone an impressive transformation: from the White House to the Capitol Building, Pennsylvania Avenue has become a Main Street in which the city and Nation can take pride, and restaurants, theaters, and entertainment venues have transformed downtown D.C. into a regional destination. At the same time, some neighborhoods that were once marred by abandoned houses and vacant storefronts are now home to new buildings, grocery stores, banks, and other amenities. These changes have attracted new residents, both downtown and in various neighborhoods, resulting in the growth of the District's population for the first time in half a century.[34]

Yet Washington faces serious challenges if it is to sustain its success. Rapid regional growth has aggravated traffic congestion and air pollution. Outdated sewer systems continue to pollute the city's major waterways. While faith in the city's government has been significantly restored, there are many essential services, such as public education, public safety, and primary health care, which require more modern facilities in order to operate effectively. Homeownership remains out of reach for many District residents, and in some neighborhoods, the rising rents and property taxes associated with revitalization have aroused anxiety among long-time residents. Other neighborhoods, particularly on the city's eastern side, are still distressed with high poverty and unemployment rates. The Anacostia waterfront, a natural feature with great potential for serving as a public gathering space and bridging the city's geographic and economic divides, is only in the early stages of development.

For the District to be a truly great city for residents and visitors alike, it must overcome these challenges. To become

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a showcase capital city, the District must not only improve its long-neglected and badly deteriorated infrastructure, it must also modernize the facilities used to deliver essential services. Additionally, the District must invest in new capital projects to meet the needs of its growing and changing population and its daytime workforce, much of which is composed of federal employees. As the core of a burgeoning metropolitan area, the District must also contribute to regional infrastructure projects, particularly in the much-needed areas of public transit and the environment.[35]

The District of Columbia is not unique in many of the infrastructure problems that confront it–other older cities face similar challenges. However, as the Nation's Capital, Washington faces revenue limitations that are not imposed on any other city in the country. The city's unique revenue and debt limitations, combined with a legacy of infrastructure neglect, inhibit its ability to fund all of the large and costly projects that demand attention.

This chapter concentrates on the capital improvements Washington needs to be a great city–public works projects like transit systems, roads and bridges, sewer systems, and facilities–rather than on the quality of city services. Obviously, high quality services are crucial to a great city. However, while services within a city can be assessed, it is often difficult to measure and compare services across cities. This is because standard measurements for a variety of service delivery among "great cities" are not always available or clear. By contrast, we are able to identify basic infrastructure elements required by a great city and assess the condition of D.C.'s current infrastructure accordingly.

This chapter begins by distinguishing qualities common to a great city in accordance with urban planning literature and planning documents for the District of Columbia. To the extent possible, the chapter also assesses how the District fares in each of these areas relative to standard data indicators, comparative analyses with other cities, or evaluations of D.C. systems.

We then identify some of the major capital improvements the city must make in order to achieve the characteristics of a "great city." We have not reached for "pie in the sky." Indeed, all of the projects we review have been widely discussed and there are detailed plans for many of them. By bringing them together in this chapter we hope to underscore the overall scale of the city's need, potential, and aspirations.

The chapter also shows that federal restrictions on the city's revenue are likely to limit the District's ability to achieve its full vision. The District of Columbia has contributed millions of local dollars to many of the capital projects that we discuss. Nonetheless, because the District can only take on a limited amount of debt, many of the projects are currently underfunded and others lack current funding commitments. In short, due to its revenue and debt limitations, the District cannot support the types of capital improvements required to bring it to the status of a great city without compromising its fiscal health. We conclude that the Federal Government needs to help

the District invest in its public infrastructure if it is to become an exemplary city.

Characteristics of a Great City

Urban planning literature reveals a list of common qualities that make a city great. Together, these characteristics maximize the quality of life for residents, and at the same time, offer a distinct and special experience to visitors. As reflected in the literature, they are:[36]

1. A unique local identity and sense of place: Development, architecture, and landmarks emphasize local culture, history, and ecology.
2. High-quality and convenient transportation: Public transit is efficient, accessible, and coordinated with land use plans in all areas of the city. Roadways have low traffic congestion. Major corridors are pedestrian and bike-friendly.
3. Clean natural environment, including water and air: The city's pollution levels meet quality standards set by the Environmental Protection Agency.
4. Quality public education: Public schools provide all students with a quality education and a variety of higher education options are available to all residents.
5. A strong public safety system: Fire, emergency medical services, and police take preventative action on crime and disasters and are equipped to respond to calls and emergencies in an efficient and effective manner.
6. A variety of quality housing: There are decent rental and homeownership options for households of different types, sizes, needs, and incomes.
7. Healthy residents: Residents have good health outcomes supported by public services and adequate access to care.
8. Strong and stable communities: Poverty and unemployment are minimal and not geographically concentrated. Neighborhoods are not rigidly segregated by race. There are not gaping disparities between the city's different social groups and neighborhoods.
9. A destination downtown: Multiple uses and a mix of entertainment, cultural, civic, and business activities are clustered in close proximity.
10. Open, accessible, and well-kept public spaces and parks: Parks and public spaces have scenic qualities, environmental or natural amenities, and recreational resources. They are integrated into the fabric of neighborhoods and are conducive to public gatherings.
11. Historic and cultural resources: Historic and cultural establishments are well preserved. Public spaces reflect neighborhoods' identities often through design and artwork.
12. Vibrant neighborhoods: Public institutions like schools, recreation centers, and libraries serve as neighborhood anchors. Amenities, including grocery stores, banks, cleaners, and restaurants can be reached on foot or bicycle.

There is no one database or central depository of standard information that allows comparison of the District to other national capitals or great cities in each of these categories. For example, we found no clear way to assess if our parks and public transit systems are better or worse than those of Paris, Rome, or New York City. However, to the extent that they are available, we use standard and comparative data indictors to assess how D.C.

measures up in each of these categories. In other cases, we reference evaluations and analyses that have been conducted specifically in regard to the District.

While a unique local identity and sense of place certainly contribute to a city's greatness, we do not assess the District in regard to this quality because it is subjective and difficult to quantify. Generally, we support the premise that design aspects of capital improvements should reflect the culture, history, and ecology of Washington and its neighborhoods, and that fostering this local identity and sense of place is a key requisite for a great city.

A great city also has extensive historical and cultural resources, a quality that Washington already possesses as home to many of the Nation's historical treasures and cultural institutions, including the national monuments, the Smithsonian museums, and a variety of arts venues. This chapter does not review specific historical or cultural capital projects since such projects are often integrated into other development efforts. However, we generally support the D.C. Comprehensive Plan's recommendation for the city to assist in developing, maintaining, and expanding affordable arts facilities, and to include public art in public buildings, infrastructure, and developments.[37]

Moreover, since the vibrancy of neighborhoods heavily depends on the other great city qualities identified, we review neighborhood conditions within the categories of high-quality and convenient transportation, healthy residents, strong and stable communities, and public spaces/ parks.

Capital Projects to Bring DC to a Great City Status

This section highlights a dozen specific capital improvements needed in Washington, D.C. to ensure quality experiences for residents, workers, and visitors. *(Table 1, Matrix of Major Capital Initiatives to Help D.C. Achieve Great City*

Major D.C. Capital Initiatives	High-quality and convenient transportation	Clean natural environment	Quality public education	Strong public safety system	Variety of quality housing	Healthy residents	Good economic and social outcomes	Destination Downtown	Open, accessible, and well-kept public spaces	Historical and cultural resources
1. Affordable Housing Investments					X		X			
2. Public Schools Modernization			X				X			
3. UDC Modernization/ Community College			X				X			
4. Community Health Centers						X	X			
5. New Communities Initiative					X		X			
6. Anacostia Waterfront Initiatve[1]	X	X			X		X			
7. WMATA Improvements	X	X						X	X	X
8. DC Intra-city Public Transit	X	X						X		
9. Parks and Recreation Centers						X	X		X	
10. Fire/EMS and Police Facilities Improvements				X			X			
11. WASA Improvements		X								
12. Public arts projects and cultural facilities										X

1. Includes road and bridge improvements for Anacostia Crossings
Note: a unique identity/sense of place and vibrant neighborhoods are also major components of a great city. They are not listed on the matrix although each of the capital initiatives would contribute to these components.

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Qualities). These projects fall into nine "great city" categories, though some are related to more than one: transportation; clean environment; public education; public safety; health care; housing; healthy residents; strong and stable communities; destination downtown; and parks, waterfronts, and other public spaces.

To ensure that the projects identified are realistic and feasible, we limit our discussion to capital needs already discussed or planned by the city government. The projects we review have different timelines—some will move forward in the next several years while others will be completed in a five- to 10-year timeframe. While we review an extensive list of capital projects, it is not a comprehensive discussion of all projects under consideration or underway.

We include estimates produced by planners that illustrate the magnitude of costs associated with these capital projects whenever possible. Since the cost estimates come from a variety of sources that use different methods, the dollar amounts shown are not always adjusted for inflation in the same way and therefore cannot be directly compared or tallied. Other projects that we have identified do not yet have cost estimates associated with them because they are not close enough to implementation. Long-term cost estimates for capital projects are quite susceptible to change as inputs like energy sources and costs, building materials, environmental regulations, and population may be different 10 to 20 years from now. For all of these reasons, we do not provide a total estimate of costs for the improvements we review.

Even so, the estimates provide a sense of the magnitude of costs associated with improving the city's infrastructure to the level worthy of a great city. These order-of-magnitude estimates make it apparent that, collectively, such improvements would cost billions of dollars.

High-Quality and Convenient Transportation

Great cities have effective and efficient public transit systems, roads, and bridges. The District's Metro system, one of the Nation's best, is in serious need of repair and expansion due to aging infrastructure and increased demand if it is to maintain its status as a high-quality public transit system. Roadways that cross the Potomac and the Anacostia rivers—gateways to our Nation's Capital—suffer from severe traffic congestion. Views of the Capitol Building, one of the greatest symbols of our democracy, are interrupted by a tangle of highways. Infrastructure improvements to

Table 2. Passenger Trips per Vehicle Mile, 2002		
	Rail Transit	Bus transit
WMATA	**4.65**	**3.9**
Highest	7.75	9.6
National Average	**4.50**	**2.8**
National Average excluding NYC	3.69	---
Lowest	1.66	0.7

Source: Report of the Metro Funding Panel, 2005.

Table 3. Operating Cost Per Passenger Trip (Cost to carry each passenger)		
	Rail Transit	Bus transit
WMATA	**$1.90**	**$2.30**
Highest	$4.47	$5.10
National Average	**$1.60**	**$2.40**
National Average excluding NYC	$1.73	---
Lowest	$1.28	$1.50

Source: Report of the Metro Funding Panel, 2005.

the city's public transit system, as well as its bridges and major corridors, can remedy these problems.

The Public Transit System. The Washington Metropolitan Area Transportation Agency (WMATA) services the District of Columbia and the greater Washington region with an integrated bus and rail system. WMATA has the second largest heavy rail system in the country, second only to the historic rail system in New York City, and the fifth largest bus system.[38]

WMATA's rail and bus systems perform well relative to other public transportation systems in regard to productivity and efficiency. A benchmarking analysis conducted by the 2005 Metro Funding Panel found that:

- WMATA's bus and rail systems were both more productive than the national average *(Table 2, Passenger Trips per Vehicle Mile, 2002).*
- In terms of operating costs per passenger trip, Metrorail is competitive with similar systems nationally and Metrobus is more efficient than the national average *(Table 3. Operating Cost Per Passenger Trip (Cost to carry each passenger), 2002).*

Nonetheless, WMATA faces serious operational challenges due to its aging equipment and infrastructure. A 2001 GAO report indicated that Metrorail experienced an increase in train delays and passenger "offloads" due to vehicle, track, system, and other problems.[39] The number of train delays due to these equipment or infrastructure failures increased by 64 percent from 865 in FY1996 to 1,417 in FY2000. Likewise, the number of passenger offloads increased by 55 percent from 783 in FY1996 to 1,212 in FY2000. More recent data indicate that

Photo by Michael Bonfigli

Metro's problems have not been resolved. In 2007, less than 95 percent of all trains arrived on time, with only 80 percent of trains running on schedule during the evening rush hour.[40] From July to November of 2007, mechanical and door problems caused nearly 60 percent of the 1,825 service disruptions.[41]

WMATA ascribes these equipment and infrastructure problems to age. According to GAO's 2001 report, 45 percent of Metrorail's 103-mile system is 17 to 25 years old and less than a quarter of the system has been constructed within the past eight years. WMATA's rail cars are also aging. WMATA estimates the useful life of its rail cars to be 40 years.[42] At the time of the GAO report, 39 percent of Metrorail's 762 rail car fleet had been in service for 25 years, meaning that well over a third were halfway through their useful life.

The Metrorail system also faces capacity challenges due to increased ridership. Trains are crowded, particularly during the morning and evening rush hours, when 70 percent of ridership occurs.[43] Metrorail's scheduled capacity meets ridership demand if there are, on average, 140 or fewer passengers in a car during the peak half-hour. According to GAO's 2001 report, WMATA observed peak trips over a six-month period and found that, on average, 15 percent of both peak morning and peak afternoon hour train cars were uncomfortably crowded (125-149 passengers). Moreover, an average of 8 percent of peak morning hour train cars and 5 percent of peak afternoon hour trains had "crush loads" (150 or more passengers). With rising gas prices, Metro has more recently experienced record-breaking ridership with an increase in train riders from FY2007-FY2008.[44] Metrorail ridership is projected to grow by 22 percent between 2010 and 2020, reaching one million trips a day.

The capacity of the 29 downtown Washington stations in the Metrorail system's core is also compromised. Although they serve 60 percent of all customers and 90 percent of those who transfer between rail lines, they contain no more than 36 percent of the system's infrastructure.[45]

In September 2008, WMATA announced that it would need $11.3 billion over 10 years (2010 to 2020) to address its infrastructure and capacity problems. WMATA would use the funds accordingly:[46]

- Over $7 billion to maintain its current rail, bus, and paratransit system, which would include making repairs to tunnels, platforms, escalators, and replacing aging rail cars and buses.

- Nearly $3.5 billion to increase capacity by adding more cars to trains, creating pedestrian tunnels between Metro stations, and adding new buses to the MetroBus fleet.

- Over $700 million to make improvements for customers, such as additional security lighting and better station signage.

Historically, WMATA does not have a dedicated source of revenue for capital projects that secures future funds. Instead, it finances its capital projects with three funding sources: federal funds; contributions from state and local governments appropriated annually; and short- and long-term borrowing.[47] The lack of a constant, secure source of funding has made it extremely difficult for WMATA to make the types of improvements necessary to sustain a world-class public transit system capable of effectively and efficiently serving the Nation's Capital and many of the Federal Government's essential functions.[48]

Congress has responded to this problem by

passing rail safety legislation (H.R. 2095) that includes $1.5 billion in federal matching funds over 10 years to support critical maintenance and upkeep of the WMATA system.[49] The $1.5 billion in federal funds for WMATA was originally proposed by Rep. Tom Davis (R-VA) in a bill called the National Capital Transportation Amendments Act (H.R. 401), which stated that, "Metro, the public transit system of the Washington metropolitan area, is essential for the continued and effective performance of the functions of the Federal Government, and for the orderly movement of people during major events and times of regional or national emergency."

Public Transit Alternatives. In addition to making the stated improvements to the regional public transit system, the city must also address the need for efficient public transit within its borders. Currently, there are some neighborhoods of the city not served by Metrorail. Indeed, Georgetown, Bolling Air Force Base, much of Northeast D.C., parts of Anacostia, portions of the city's western edge, and parts of the northern section of the city are more than a half-mile away from a Metro stop.[50] Moreover, the lack of direct connections between Washington's neighborhoods adds to residents' commute times and contributes to crowding on the city's main metro lines.

Since it would be extremely expensive to add new underground rail lines in the District, the city and WMATA have worked together to plan transit alternatives. The D.C. Circulator, a new bus service that provides transit between downtown destinations and carries over 6,000 riders each day, is one example of an intra-city transit alternative.[51] Other alternatives are outlined in a 2005 plan called the District of Columbia Transit Improvements Alternative Analysis (DCAA):

- Improved local bus service
- Street cars, smaller rail cars that run on in-street tracks at traffic's grade level
- Rapid bus service including express buses in major corridors
- Bus rapid transit, which provides a similar level of service to light rail in regard to frequency and stop spacing with the flexibility of a bus

Together, these public transportation alternatives are meant to serve neighborhoods not currently accessible by Metro, ease travel time from one neighborhood in the city to another, and supplement the capacity of the WMATA system. The 2005 DCAA plan estimated a total capital cost of $851 million (in 2005 dollars) for implementing this full transit system, a figure that will be updated soon. The DCAA is not currently funded, although the District does seek opportunities to fund elements of the DCAA through its annual subsidy to WMATA. For example, in 2007, the city was able to use some of the bus funds allocated to the District under the WMATA Metro Matters plan to support rapid bus service for Georgia Avenue/7th Street NW. However, given the transit agency's funding limitations for capital projects, the District cannot expect that WMATA dollars allocated to District-specific projects will cover all of the costs of implementing the DCAA transit plan.

Roads and Bridges. The District's roadway system is comprised of 1,153 miles of roadway, 229 vehicular and pedestrian bridges, and 7,700 intersections, 17 percent of which are signalized.[52] The city has been able to improve its roadways due to increased funds available for traffic maintenance since the mid-1990's.[53] However, with the majority of workers in the city commuting from outside of the District, the city still struggles with traffic congestion on its radial principal arterial roadways. North/South travel on I-95 feeding into I-295 and I-395 contribute to the city's congestion with these highways carrying the heaviest daily traffic volumes in the city.[54] The limited number of crossings over the Potomac and

Photo by D.C. Dept. of Transportation

Anacostia rivers also cause more congestion at these border crossings compared to those in the northern part of the city.[55]

The highways that cut across the Anacostia River obstruct vistas of one of the city's most symbolic buildings, the U.S. Capitol. Indeed, South Capitol Street is a central thoroughfare of the city's southern quadrants, and was designed to serve as a ceremonial gateway to the District marked by its path to the U.S. Capitol building.[56] Yet a maze of highway and railroad overpasses currently blocks the view of the capitol dome from the street. South Capitol's use as a local street is further diminished by its freeway characteristics with traffic jams during peak travel hours and high accident rates.[57]

Over the past several years, the District of Columbia's Department of Transportation (DDOT) has issued a number of studies to evaluate the current and future needs for Anacostia River crossings, as well as road access to nearby neighborhoods. These studies include the Middle Anacostia River Crossings Transportation Study, the South Capitol Gateway and Corridor Improvement Study, and the Anacostia Access Study, and are part of DDOT's contribution to the Anacostia Waterfront Initiative, which is discussed later in this chapter.

Using traffic demand data projected for 2030, the Middle Anacostia River Crossings study found that current deficiencies in the Anacostia River crossings will worsen if no improvements are made on major roadways, particularly Pennsylvania Avenue and the Anacostia Freeway, also known as I-295. The study identified a number of mid- to long-range projects to improve middle Anacostia crossings, the largest among them being improvements to the 11th Street bridges that connect the Anacostia and Southeast freeways and link traffic from the east side of the region to the city's core. Magnitude of cost estimates for all of the mid- to long-term Middle Anacostia crossing improvement projects total up to as much as nearly $800 million, an amount that includes a $465 million price tag for the 11th Street bridges.[58] The city currently anticipates $459 million of revenue for the 11th Street bridge rehabilitation project, which consists of $200 million in G.O. Bonds from the East Washington Traffic Relief Act, $60.9 million in dedicated parking tax revenues, $200 million in Grant Anticipation Revenue Vehicles (GARVEE) Bonds, and $17.6 million in federal appropriations.[59] With these available revenue streams, the city will complete a $459 million scope of work on the 11th Street Bridge and Corridor project in the next several years and will finish the remaining improvements when more revenue is made available.[60]

The DDOT studies also outline major improvements to restore South Capitol Street's status as a gateway to the city's core of national monuments. The largest project initially discussed to achieve this vision of the South Capitol Street corridor was a new tunnel that would link I-295 and I-395 in order to accommodate regional through-traffic, thereby instating South Capitol and other nearby streets as grand boulevards. The 2003 South Capitol Gateway Corridor and Anacostia Access study estimated that such a tunnel would cost approximately $ 1 billion.[61] Due to the large price tag associated with the tunnel, the District is currently reviewing less expensive means of returning South Capitol Street into a gateway to the Nation's Capital.

Clean Natural Environment

Visitors and residents of a great city enjoy its natural features, including good air quality that supports outdoor activities and waterways that can be used for swimming, fishing, and recreation. Motor vehicle emissions pollute the District's air while urban and upstream agricultural runoff and the combined sewer system contaminate its waterways. Increased public transit capacity can help address air pollution while major

infrastructure improvements to the city's sewer system and water treatment plant can improve water quality.

Air Quality. Urbanization has damaged the District's water and air quality. The District and its surrounding region do not meet federal standards for air quality. Specifically, the Environmental Protection Agency (EPA) sets Natural Ambient Air Quality Standards that review six criteria pollutants as indicators of air quality, including ozone, nitrogen dioxide, sulfur dioxide, particulate matter, and lead. When an ambient air quality standard is not attained, a metropolitan area is designated as a "nonattainment area." The Washington, D.C. metropolitan area was designated nonattainment for ozone and particulate matter.[62]

Motor vehicle emissions are the greatest contributor to air pollution in the Washington metropolitan area.[63] Washington can make significant improvements to its air quality by investing in the capacity of its regional and local public transportation systems.

Water Quality. The District's rivers and streams have been polluted by raw sewage, as well as urban and upstream agricultural runoff.[64] Section 303 of the federal Clean Water Act establishes water quality standards. Under this act, states are required to develop lists of impaired waters, which do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. There are 25 waterbody segments on D.C.'s 2006 list of impaired waters.[65]

The Anacostia River's pollution is particularly severe, and has been well documented. Sometimes referred to as the "forgotten river," the Anacostia has been marred by riverbed sediment contaminated with toxins, high levels of bacteria, and trash. It has been deemed unfit for swimming or fishing. Indeed, the U.S. Fish and Wildlife Service found liver tumors in 50 to 68 percent of the Anacostia's brown bullhead catfish, a species regularly exposed to the river's contaminated sediment.[66] Much of the pollution is caused by discharges from areas in Maryland through which the river flows before entering the city. Nonetheless, the Anacostia's clean-up is imperative if the river is to serve as a centerpiece for the Anacostia Waterfront Initiative.

While pollutants in the District's waterbodies come from a variety of sources and cannot always be traced to a particular point, certain types of pollution are derived from the District's wastewater system, including its sewers. As is the case with many older cities, the District is partially served by a combined sewer system that carries both storm water and sewage. In dry weather, the combined sewer system carries wastewater to the Blue Plains Treatment Plan. During storms, however, both rain and sewage enter the system, and raw sewage often overflows into the city's waterways. The D.C. Water and Sewer Authority (WASA) estimates that combined sewers overflow 75 times a year into the Anacostia and Potomac Rivers, releasing 1.5 billion gallons of combined overflow into the Anacostia and 850 million gallons into the Potomac.[67]

In 2004, WASA reached a legal agreement with the EPA and others on a long-term control plan to reduce its combined sewer overflow—its largest and most costly capital project.[68] The plan requires WASA to make a number of capital improvements, including but not limited to 12 miles of large underground tunnels that will stow storm water until it can be sent for treatment at Blue Plains. The plan's full implementation is expected to reduce combined sewer overflows into the Anacostia by 98 percent, and total combined sewer overflows by 96 percent. These reductions will substantially improve water quality in the city's waterways, and in particular, will contribute to the Anacostia's clean-up, which is a key component of the city's effort to develop the river's waterfront on both banks.

Photo by Michael Bonfigli

Overall, the long-term control plan will take 20 years to fully implement and will cost $2.2 billion.[69] The Federal Government has thus far contributed roughly $100 million to the long-term control plan through several one-time grants that required matches from WASA.[70] However, the Federal Government has not dedicated any future funding to this effort.

In addition to the long-term control plan, WASA must modernize its Blue Plains wastewater treatment plan to significantly reduce the amount of nitrogen discharged into waters to comply with EPA requirements. The presence of too much nitrogen in wastewater is problematic because it has adverse ecological and public health impacts. In April 2007, the EPA set new limits on the amount of nitrogen that the Blue Plains wastewater treatment plant can legally discharge as a means of improving water quality in the District and the Chesapeake Bay. To meet these new operating permit requirements, the facility must reduce nitrogen discharge from 8.5 million to 4.7 million pounds per year by 2016, and Blue Plains must be upgraded to reach this new level. The capital projects required for Blue Plains to achieve this new goal are projected to cost $950 million (in 2007 dollars).[71]

As a public enterprise, WASA supplies water and sewer services to users who pay fees. WASA also issues its own bonds to cover its capital costs, and must pay the debt incurred from those bonds from its own revenue stream. Without federal assistance, costs of debt necessary to implement the combined sewer long-term control plan will be passed onto WASA's customers through large rate increases. Indeed, WASA estimates that without continued federal funding, a typical single-family residential bill will rise from $29.83 in 2008 to almost $110.30 by FY 2025—a 300 percent increase.[72] Costs for upgrading the Blue Plains facility to meet new nitrogen discharge goals will also largely be felt by ratepayers. In short, these high rates will translate to an increased, and in some cases unaffordable, cost for the city's businesses and residents who already carry a heavy tax burden.

Quality Public Education

Great cities provide quality public education and a variety of public higher education opportunities to its population, delivered in safe and comfortable facilities. School facilities modernization is a major element of the District's endeavor to improve its public school system.

The Public School System. The District's public schools perform poorly compared to other urban school districts with similarly disadvantaged populations. The National Assessment of Educational Progress (NAEP) Trial Urban District Assessment compares D.C. public schools (DCPS) to those in 10 other major cities. In 2005, the proportion of D.C. students at or above proficient in fourth and eighth grade reading and math in 2005 was lower than those of most schools included in the trial. A major effort is now underway to improve Washington's public school system, and facilities modernization is a chief component of reform.

Many of the District of Columbia's public school buildings, which were, for the most part, built by the Federal Government and turned over to the District in varying states of repair, are in serious need of modernization. A recent inspection of DCPS buildings found that only 10 percent of schools were in good condition and nearly 75 percent of the schools were in poor condition.[73] Shortfalls included lack of adequate science facilities, peeling paint, worn out carpet, dim lighting, windows that don't open or close, bathrooms with fixtures that do not work, and other problems associated with health and safety.[74] Additionally, many of the city's public charter schools are either located in former-DCPS buildings with similar modernization needs, or in space not designed for schools, such

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as churches or repurposed commercial and industrial space. Such conditions are troublesome since research suggests that there is a relationship between the quality of school buildings and the level of student achievement and teacher success.[75]

This year, the District government released a new DC Schools Master Facilities Plan. The plan's first phase will use $1.3 billion over five years to fully modernize every classroom and completely renovate high schools, spending approximately $250 million a year on these improvements.[76] In accordance with the School Modernization Financing Act of 2006, roughly $100 million of annual revenues from the operating budget will support these improvements in addition to over $100 million of G.O. bonds."[77] The city will continue to make capital improvements to DCPS facilities beyond Phase One.

In addition to modernization activities, the District has performed a number of immediate repairs to ensure a safe and healthy environment for students and personnel in badly deteriorated schools. These additional facility improvements include items such as asbestos abatement, replacing heating ventilation and air-conditioning systems, roof and plumbing repairs, and fire safety upgrades. In FY2007 and 2008, the city spent $600 million on immediate upgrades to school facilities.[78]

Higher Education. The District also needs to improve its system of higher education. Despite its high rate of college graduates (an estimated 46 percent of D.C. adults have a bachelor's degree or more), over a third of the city's adult population had a high school degree or less in 2006.[79] District residents with no education beyond a high school degree have much higher poverty and unemployment rates than those with a college degree.[80]

In cities across the country, community colleges play a critical role in preparing residents for middle-skill jobs and further higher education. Yet of the 50 largest cities in the United States, Washington, D.C. is the only city without a freestanding community college.[81] Instead, the District has chosen to give its only public institution of higher education, the University of the District of Columbia (UDC), the dual mission of a state university and a community college.

Recent reports by Brookings, DC Appleseed, and the DC Fiscal Policy Institute argue that the District needs a fully-fledged community college in order to address education, income, and employment disparities, an issue supported by numerous city leaders.[82] Creating a community college in the District will impact UDC since the university currently carries out all of the city's public higher education functions. Moreover, UDC is still struggling to recover from the city's fiscal crisis when its budget, faculty, and programs were slashed due to financial distress at the university and in the city at large.[83] In order to fully recover, the city and UDC together must set forth a firm programmatic vision and mission for higher education in D.C.

Capital improvements to UDC should support and reflect its mission and programs. The university's campus, which includes over 900,000 square feet of buildings, sits on 22 acres of land in the city's Van Ness neighborhood.[84] Since eight of UDC's nine buildings were erected in 1976, the campus has lacked regular maintenance and has accrued a backlog of capital needs. Recent news articles and testimonies before the D.C. Council document UDC's run-down facilities, maintenance problems, and difficulty launching a capital campaign.[85] Although UDC does not have its own capital improvement plan, these issues suggest that, at the very least, UDC is in need of building systems and technology modernization. A new programmatic strategy at the University may require replacing some buildings with newer facilities capable of meeting modern

Marie Reed Community Center
Photo by Michael Bonfigli

educational needs. Currently, there are less than $50 million of renovations to the Van Ness campus included in the city's proposed FY2009¾–FY2014 six-year Capital Improvement Plan.

In addition to modernizing UDC, if the city decides to expand its system of higher education to include a community college, it will need facilities, preferably on the city's east side, where most residents without higher education reside. Such facilities must be able to accommodate equipment and technology necessary to train students in high-demand occupations like construction, health care, and information technology. Capital cost estimates associated with building a new community college will be substantial and will be developed though a feasibility study currently underway.

Strong Public Safety System

Public safety is a key component of any great city. Residents, workers, and visitors should be able to spend time in the city's various neighborhoods without a fear of crime. They should also have confidence that they would receive excellent protection and public safety services were an emergency or disaster to occur. Modern facilities for both the police and the fire department are necessary to accommodate contemporary equipment and support better service delivery for the Nation's Capital.

The D.C. Fire and Emergency Medical Services (DCFEMS) operates from 40 different facilities with an average age of 57 years. Thirty-three of these facilities are neighborhood fire houses.[86] The last DCFEMS facilities assessment was conducted nearly a decade ago. Nonetheless, the District's capital improvement plan notes that, "the ravages of time, constant use and previously deferred maintenance, repair and modernization have taken their toll on each of these structures, their interior finish, and the built in systems required for their continued use."[87] Renovations of the city's firehouses will accelerate over FY2009–2014 for eleven, or one-third of the city's 33 engine companies. The FY2009–2014 CIP also includes over $30 million for maintenance and repairs at facilities not being renovated, as well as for facilities assessment and capital planning.

With support from the Federal Government, the city is developing a consolidated forensic and public health laboratory priced at nearly $220 million.[88] The laboratory will help District agencies solve crimes by coordinating activities among the Metropolitan Police Department, the Department of Health, and the Office of the Chief Medical Examiner. From FY2005 to FY2009, the District invested over $100 million in the consolidated forensic laboratory, providing two-thirds of the project's funding thus far. While the city plans to invest an additional $50 million in the lab in FY2010, completing the project will require $15 million from the Federal Government. The District has also identified the need to totally renovate the Daly Building, which serves as the Metropolitan Police Headquarters, for an estimated cost of $100 million.[89] Built in 1939, the Daly Building has had very minimal maintenance over the years.

A Variety of Quality Housing

Great cities have a variety of housing available to households of different types, sizes, and income levels. While the District's once-booming housing market has cooled, sale prices in many areas are still unaffordable for many low- and moderate-income families.[90] The District must expand its affordable housing stock if it is to attract and retain the diverse mix of households that make great cities vibrant.

The District of Columbia has recently experienced an extraordinary housing boom. From the mid- to late- 1990s, increases in homes sales prices were relatively flat or modest. But from 2000 to 2005, sales prices for single-family homes and condominiums more than doubled, even after adjusting for inflation.[91]

Photo by Michael Bonfigli

Despite the recent slowdown in the city's housing market, homeownership is still out of reach to many low- and moderate-income households, including those supported by front-line workers essential to the city's economy, such as public service providers and health care workers. For example, families supported by home health aides and nursing aides earning less than $30,000 are completely shut out of the city's home sales market. A household supported by a registered nurse (earning $63,800 annually) looking to buy its first home could only afford 8 percent of all homes sold in the District in 2006, compared to 41 percent of all home sales in 2000. Likewise, less than one-fifth of homes sold in 2006 were affordable to a family supported by a medical and health services manager (with annual income of $87,300) compared to over half in 2000.

In addition to affordability challenges, the types of homes being sold in the District may not accommodate larger families that wish to buy here. The share of home sales that are single-family fell from 65 percent in 2000 to 51 percent in 2006 with consecutive declines each year. Condominiums, which are less likely to house families with children in public schools, account for the rest of the D.C. sales market.

D.C.'s rents are also unaffordable to many. In 2006, the city's average rent of $1,380 was higher than the metropolitan area average of $1,226. A household would need an annual income over $50,000 to afford the city's average rental unit in 2006. The average D.C. rent is 1.2 times the rent affordable to a licensed practical nurse and 2.6 times the rent affordable to a home health aide. Due to the District's high rent prices and the loss of rental units discussed in the earlier chapter, subsidized housing is especially important in the District. A recent report by NeighborhoodInfo DC estimates that in 2007, almost 35,000 units of federally and locally subsidized, affordable housing existed in the District or were in development.[92]

However, the affordability restrictions on approximately 68 percent of the city's total subsidized housing stock will expire over the next 14 years. Since owners can renew subsidy contracts, expiration does not necessarily mean that these units will be lost as affordable. However, given the large portion of affordability restrictions set to expire, the city should make plans to ensure that as much of this housing stock remains affordable as is possible.

The Comprehensive Housing Strategy Task Force identified a fifteen year goal for the city of increasing housing units by 55,000, one-third or about 19,000 of which should be affordable.[93] The Task Force recommended that the city preserve at least 30,000 existing affordable units and assist 14,600 additional extremely low income renter households. The Task Force called on the city to take steps to increase the homeownership rate in the city from 41 percent to 44 percent. Over the fifteen year period, the Task Force estimated that these and other related efforts would cost approximately $6 billion, $3 billion of which could be covered from existing sources of revenue, including current flows of federal funds for these purposes. The $3 billion remaining balance would have to come from new sources of support.

Healthy Residents

Residents of a great city have access to decent health care that supports good health outcomes. Research indicates that one-in-five District residents have no usual source of health care. The District can expand the capital capacity of community health centers in high-need areas to improve residents' access to primary care.

A recent report by RAND examined health status and access to care among adults and children in D.C. Over one-third (37 percent) of adult District residents have one or more chronic conditions, such as hypertension, asthma, diabetes, heart disease, and cerebrovascular disease, with hypertension

Photo by Michael Bonfigli

being the most common.[94] RAND found that District residents' measured health outcomes are comparable to those of benchmark cities with similar socio-demographic traits (Baltimore, Richmond, Philadelphia, Cleveland, Detroit, and Atlanta) with the exception of mortality rates from diabetes, which are higher in D.C.

Health outcomes, however, vary across the city.[95] Adult residents of Wards 7 and 8 had higher rates of chronic disease, poor health status, and premature mortality. Children living in Ward 3 had better health outcomes than those in the city's other wards. Asthma was most prevalent among children in Ward 7.

In regard to insurance, RAND found that D.C. adults have a higher rate of health insurance coverage (91 percent) relative to other cities due to the locally-funded DC Healthcare Alliance program, which pays for health care for adults with earnings below 200 percent of the federal poverty line, as well as an expansive Medicaid program.

However, RAND's findings on health care access indicate a need to strengthen the city's primary care system, particularly in wards east of Rock Creek Park. Despite the high rate of insurance coverage, 20 percent of residents reported no usual source of care, meaning they do not have a regular physician or medical office. Adults in parts of Wards 5 and 6 were less likely to have a usual source of care than those in other parts of the city. Children in some of Wards 1 and 5, most of Ward 4, and all of Wards 7 and 8 had relatively low rates of a usual source of care.

Hospitalizations for ambulatory care sensitive (ACS) conditions are a commonly used indicator of the overall effectiveness of primary care (including access to and quality of care). ACS conditions are health conditions such as asthma and diabetes that can be treated in a primary care setting and should not result in hospitalization if patients receive appropriate medical care. ACS hospital admissions among youth and adults aged 40-64 increased from 2000-2006. In 2006, ACS rates among adults were highest in Wards 7 and 8. Among children, ACS rates were highest in most of Ward 4 and some of Wards 1 and 5. Moreover, rates of emergency department visits for conditions that could be treated in primary care settings have increased since 2000. These indicators suggest that District residents' access to primary care has worsened.

In a separate report, RAND recommends seven capital expenditures the city could make to improve its health care delivery system by using $135 million from the recent settlement of tobacco litigation.[96] One of the recommendations is to expand the capacity and improve the physical space of community health centers, which are nonprofit organizations with a mission to provide medical care regardless of the ability to pay. RAND notes that the Medical Homes project may be one natural way to achieve this expansion.

The DC Primary Care Association (DCPCA), the association of community health centers in the District, launched the Medical Homes DC project in 2004 with the aim of strengthening the primary care safety net. A major focus of the Medical Homes project is helping health centers improve their facilities through renovation, expansion, or new construction.[97] While some health centers are in attractive, well-designed spaces, others operate in substandard facilities that compromise their ability to provide high-quality care.[98] Additionally, some neighborhoods, particularly on the city's east side, do not have enough facilities. While health centers can (and do) fundraise and take on debt, they face serious challenges in raising sufficient funds for capital projects. They are modestly staffed and operate on thin financial margins.[99] DCPCA has calculated that a $50 million contribution from the city would allow 12 health centers (five of which are in high-need

"Capital projects already discussed may over time help reduce economic and social disparities among the District's residents. Such projects include affordable housing development, as well as improved facilities for public schools and colleges, community health centers, and public safety agencies."

areas of Wards 7 and 8) to move forward on their capital plans.[100]

Strong and Stable Communities

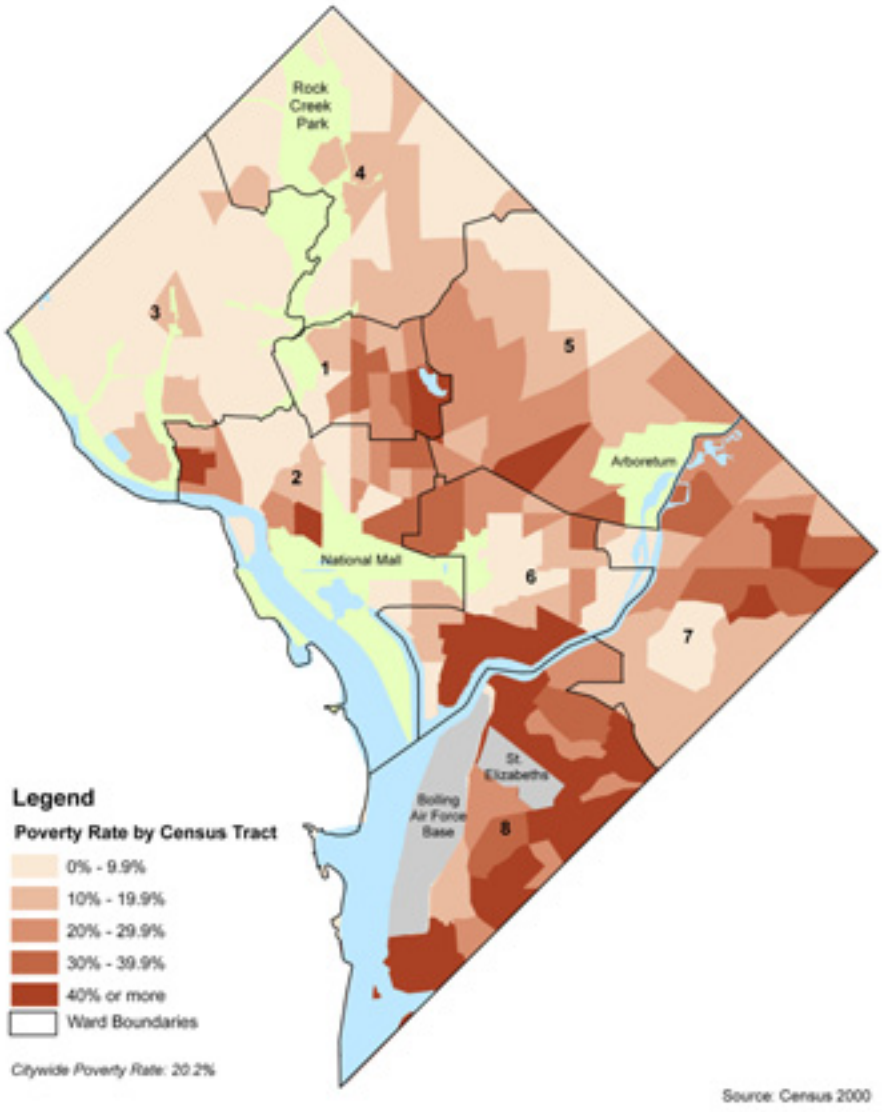
A great city is not rigidly divided by income or race and large disparities do not exist between its different social groups and neighborhoods. Despite its status as the capital of the world's wealthiest Nation, the District suffers from high and concentrated poverty and unemployment. Economic and housing development projects can help transform high-poverty neighborhoods into vibrant mixed-income communities.

The District fares poorly on poverty and unemployment outcomes despite local and regional economic growth. In 1999, at 20.2 percent, the District had the ninth highest poverty rate of the 25 largest American cities.[101] Sadly, Washington's poverty rate has not declined since.[102]

Not all neighborhoods are equally affected by poverty. The District's concentrated poverty rate, or the proportion of all poor individuals citywide living in extreme-poverty neighborhoods, was 23.8 percent in 1999 (the most recent year for which neighborhood-level data are available).[103] In other words, nearly a quarter of all the city's poor residents lived in neighborhoods that had poverty rates of 40 percent or more. The District's concentrated poverty rate was the fourth highest among the country's 25 largest cities, exceeded only by Philadelphia, Milwaukee, and New York City.[104]

The city's poverty neighborhoods are located on its eastern side. We define "poverty neighborhoods" as census tracts where 20 percent or more of the population is living below the federal poverty threshold. As of 1999, wards on the west side of the city (Wards 3 and 4) had no poverty neighborhoods. By contrast, "extreme poverty" neighborhoods (with poverty rates of 40 percent or more) were prevalent in the city's most eastern wards (Wards 7 and 8). This east-west divide is also apparent in more recent data on the 2004 Earned Income Tax Credit (EITC) collections, which shows that zip codes to the West of Rock Creek Park had the lowest concentrations of working poor families while the zip codes to the East of the Anacostia River had the highest.[105] *(See Map 1: Neighborhood Poverty Rates in 1999, Washington D.C.)* Among the 25 largest cities in 2006, the District's 6 percent unemployment rate was the sixth highest, a troubling statistic given the steady job growth that has occurred in the city and the metropolitan Washington region.[106] In 2005, Wards 7 and 8 had the highest unemployment rates in the city at 13 percent and 21 percent respectively.[107] By contrast, the low poverty Ward 3 had an unemployment rate of only 2.1 percent.[108]

Photo by Michael Bonfigli



The widespread distribution of poverty in the District highlights the need for targeted neighborhood development.

In addition to being economically divided, Washington is also rigidly segregated by race. While many major American cities are not fully racially integrated, segregation between black and white residents in the District is particularly stark with large economic disparities existing between the two racial groups.

The index of dissimilarity is a standard indicator of segregation between two different racial or ethnic groups. Values between 0 and 100 can be interpreted as the percentage of one group that would have to relocate to a different neighborhood in order to be distributed exactly the same way as the other group. In 2000, the District of Columbia had a white-black dissimilarity index score of 81.5, meaning that about 82 percent of one race group (blacks or whites) would have to move in order for whites and blacks to be evenly distributed across all neighborhoods.[109] The District's white-black dissimilarity index score was the third highest of the 25 largest cities in 2000, surpassed by only New York City and Chicago. [110] The city's black neighborhoods are located on its eastern side. Whereas neighborhoods

west of Rock Creek Park were less than 15 percent black, all except one of the neighborhoods east of the Anacostia River were 89 percent or more black.[111] Given that this rigid racial segregation reflects economic segregation, it is unsurprising that the large employment and income disparities that exist between the city's east and west sides also exist between its white and black residents.[112]

A number of the capital projects already discussed may over time help reduce economic and social disparities among the District's residents and communities. Such projects include affordable housing development, as well as improved facilities for public schools and colleges, community health centers, and public safety agencies. In addition, the city has planned two major initiatives–New Communities and the Anacostia Waterfront Initiative–which intend to reduce neighborhood disparities by cultivating mixed-income development in high-poverty neighborhoods, and by developing under-utilized neighborhoods on the District's eastern side. A discussion of these projects follows.

New Communities. The District government launched the New Communities Initiative as an effort to transform neighborhoods with high concentrations of poverty and violent crime into mixed-income communities anchored by integrated public facilities containing schools, libraries, and recreation centers. The city also plans to provide social service resources in the new communities as means of addressing residents' human capital needs in terms of employment and education. The initiative will redevelop four public housing sites, two of which are east of the Anacostia River.[113]

- Northwest One, formerly Sursum Corda Cooperative and Temple Courts
- Lincoln Heights/Richardson Dwellings
- Barry Farms/Parkchester
- Park Morton

The New Communities program is guided by four principles, and development is slated to occur in four to five phases in order to minimize moves and displacement for existing residents while creating a mixed-income community:

- One-to-one replacement of existing units to ensure that deeply subsidized housing is not lost
- Right to return or stay to ensure that families can continue to live in their neighborhood
- Mixed-income housing opportunities
- New housing on publicly-controlled land built prior to demolition of existing housing when possible to minimize displacement

Each New Communities development is expected to cost hundreds of millions of dollars, and will be financed through public and private investments. For example, the Northwest One community currently undergoing development is expected to cost approximately $700 million with $39 million in gap financing required from the District of Columbia.[114] In 2005, the city authorized $16 million of the Housing Production Trust Fund to be used annually to support bond financing issued by the District for the New Communities Initiative. By securitizing this $16 million over the next 30 years, the District anticipates that it will leverage $200 million to be used for the first phase of New Communities. The city expects that this $200 million will cover gap financing for the first phase of each of the New Communities developments.[115] The city also plans to use other sources, such as tax exempt bonds, new market tax credits, and low-income housing tax credits, to cover the rest of gap financing. However, there are no assured sources of funding currently available for New Communities gap financing beyond Phase One.

If these four projects prove successful in creating mixed-income communities,

deconcentrating poverty and crime, and improving the city's human capital, the District may want to consider applying the New Communities model to other distressed public housing developments in the city. Such a move would require additional funding that the city does not currently have available.

Anacostia Waterfront Initiative. In March 2000, 20 federal and District agencies that own or control land along the Anacostia River entered into a memorandum of understanding to revitalize the waterfront, resulting in the Anacostia Waterfront Initiative (AWI). The AWI includes plans for 6,500 units of new housing, 3 million square feet of new office space, 32 acres of new public park space, and a 20-mile network of riverside trails.[116] There are several key economic development initiatives associated with the Anacostia Waterfront Initiative that are expected to help revitalize nearby distressed neighborhoods and bring investment to the eastern side of the city. These projects have different costs and levels of committed funding:

- Poplar Point is a 130-acre site along the eastern bank of the Anacostia River in Ward 8 with a mile-long shoreline. The site, currently controlled by the Federal Government, will be transferred to the District of Columbia. The development program, which has not yet been finalized, will likely include new housing, retail, hotels, and office space in addition to a required 70-acre waterfront park.
- Kenilworth Parkside in Ward 7 will become a mixed-use and mixed-income neighborhood with 2,000 new housing units and 500,000 square feet of commercial and retail space. The development plan also includes a new pedestrian bridge to connect the neighborhood to the Minnesota Avenue metro station.
- Hill East is a 67-acre site along the western bank of the Anacostia River slated to become a mixed-use community with two acres committed to new health care facilities.
- Southwest Waterfront is a 47-acre site along the Washington Channel. The development vision for the site includes street-level restaurants and shops anchoring housing, a new hotel, a cultural venue, marinas, 14 acres of parks and open space, and a riverfront promenade.
- Ballpark District will span 60 acres surrounding the new Washington National's ballpark, and will include a diverse mix of retail, entertainment, residential, and office uses.

Each of these projects also essentially forms a new neighborhood at a site that was formerly un- or under-developed. The task of building entirely new neighborhoods requires major infrastructure development as many of the sites lack updated water and sewer, power, and in some cases, road systems. But it will also help move the District towards becoming a great city.

So far, the city has used TIFs, PILOTs, and special assessments to fund major infrastructure necessary for economic development along the Anacostia Waterfront. While the city will eventually receive revenue from development of these sites that can be used to support its general fund, the initial revenues must be used to pay for these infrastructure developments. Just as importantly, the amount of TIFs and PILOTs the city can issue for future Anacostia Waterfront projects may be limited since the CFO has determined that the city should have only $1.5 billion issued in tax-supported revenue bonds at any one time in order to keep its debt at a manageable level. Indeed, in a May 2008 fiscal impact statement on legislation proposing an approval of almost $200 million in TIF and PILOT debt for the Southwest Waterfront development, the CFO noted that "issuing $198 million for

this Project reduces the amount of available TIF, PILOT, and revenue bond debt for other projects."

Destination Downtown[117]

Great cities have downtowns that serve as a center for the regional economy and draw visitors from around the globe. The District's downtown has become a major destination for regional workers and residents as well as tourists.

Once suffering from stagnation, Washington's downtown is now a destination for residents of the city and the region, as well as for tourists. The Downtown Business Improvement District (BID) covers a 140-block area. In 2007, it had only 19 sites available for redevelopment, compared to the 115 sites in existence a decade ago. The downtown BID projects that the area will be completely built out by 2014 or 2015. Though this density makes downtown walkable, it is also easy to travel within the downtown area through a new downtown bus service called the "Circulator." With seven different Metro stops servicing downtown, residents throughout the Washington area can easily access downtown through public transportation.

Downtown, D.C. is known for its strong office market, which is ranked second only to Midtown Manhattan on a number of performance measures. However, downtown D.C. is becoming increasingly mixed use. It is home to the new Washington Convention Center, the Verizon Center (host to three professional sports teams), 11 museums, over 8,600 hotel rooms, six performing arts theaters, and two cinemas. From 2000 to 2007, the Downtown BID area also gained over 3,000 new residential units.

Many tourists stay in hotels downtown when they visit D.C., a trend that has strengthened with the construction of the new Washington Convention Center. Over the past five years, hotels in the downtown BID have experienced annual revenue increases of eight percent. Downtown also offers a number of cultural and entertainment options for Washington area residents and tourists alike. With over 9 million visitors in 2006 and 2007, attendance at the Verizon center and the Downtown BID area theaters, museums, and cinemas was at its highest point in a decade. The Downtown BID area contained 114 restaurants in 2007 with more openings slated for 2008, up from 93 restaurants located downtown just five years earlier.

In short, downtown D.C. has a growing mix of entertainment, cultural, civic, and business activities. The area's high-density development makes it walkable, and the Washington area's Metro system makes it easy for suburban residents to visit downtown. With these amenities, downtown Washington is transforming into a dynamic destination place drawing workers, customers, and visitors from the city, the region, and farther. Other than housing and transportation projects already discussed, the District's downtown does not require large public infrastructure projects as it has already become a local and regional destination. Similar development in the city's other major commercial corridors, including Georgia Avenue, H Street Northeast, Historic Anacostia, and the neighborhoods bordering the downtown BID area, could transform them into regional destinations as well.

Public Spaces and Parks

A great city has green spaces, opportunities for indoor and outdoor recreation, and often waterfronts, all of which contribute to its unique sense of identity. The majority of the District's recreation centers are in serious need of repair with little funding available for renovation. Long under-utilized and inaccessible, the Anacostia waterfront will be transformed into a major centerpiece.

Parkland. Washington, D.C. is a very green city compared to other cities with high population densities. The city's 7,600 acres

of parkland account for 19.4 percent of Washington's total land area, second only to New York City (19.7 percent) and much higher than the 11.9 percent average among 11 high-density cities.[118] Of these cities, Washington has the highest parkland-to-population rate, with 13.1 park acres per 1,000 residents.[119]

Eighty-nine percent of Washington's parkland, however, is managed by the National Park Service (NPS).[120] Nearly three-quarters of NPS park acres are natural, meaning that they can be used for passive recreation activities like walking, hiking, cycling, and picnicking rather than for active recreational uses like organized sports.[121]

Moreover, since the city's parkland is not distributed evenly across the city, not all residents have equal access to open space. To determine park acreage surplus and deficiencies across the city, the D.C. Department of Parks and Recreation (DPR) has developed a proposed "level of services" measure (LOS) for each ward. A comparison of 2005 actual to proposed LOS standards reveals that Wards 1, 6, and 8 have park acreage deficits *(Table 4, Current and Proposed Level of Services for Park Acreage per 1,000 Residents by Ward, 2005).* As of yet, the city hasn't acquired any new parkland in these wards. However, Wards 6 and 8 should gain publicly-accessible park space through the Anacostia Waterfront Initiative.

Recreation Centers. The District also has a relatively high number of recreation centers compared to other large cities. Among the 60 largest cities in the U.S., the District is secondly only to Minneapolis with 2.4 recreation centers per 20,000 residents.[122] This rate is much higher than the U.S. city average of 0.9 recreation centers per 20,000 residents.[123]

However, the majority of DPR's recreation centers are not in good condition. DPR's 2005 analysis of 58 recreation facilities revealed that over half were in fair to poor condition as of 2005 (8 in poor and 28 in fair condition).[124] The same analysis projected that more than 75 percent of DPR facilities will be in fair or poor condition by 2009 if they go without repair. Since that analysis, two of the recreation centers in poor condition, seven in fair condition, and three in good condition have renovations, rehabilitations, replacements, or expansions planned.[125] Five new community centers are also included in the city's capital improvement plan. Even so, over 40 percent of the city's recreation centers (27 in total) are still in poor or fair condition with no plans or funds for capital improvements.

Waterfronts. The District is a city with not

Table 4. Current and Proposed Parkland Level of Services (LOS) by Ward, 2005
Ward LOS Standards per 1,000 Residents

Ward	Current LOS	Proposed LOS	Difference
1	1.78	4.65	-2.87
2	22.46	21	1.46
3	19.39	17.26	2.13
4	20.48	9.92	10.56
5	16.19	15.19	1
6	4.24	16.64	-12.4
7	20.94	14.94	6
8	11.77	18.46	-6.69

Source: DC Department of Parks and Recreation 2005 Master Plan

Photo by Michael Bonfigli

one but two waterfronts: the Potomac and the Anacostia. Almost all of the Potomac's shoreline north of Hains Point is publicly accessible, and the waterfront boasts views of the city's monuments and cross-river vistas, as well as amenities like the C&O Canal Towpath, the Georgetown Waterfront Park, Thompson's Boathouse, and Theodore Roosevelt Island.[126] By contrast, the 22 miles of shoreline along the Anacostia River are underutilized, inaccessible, and unattractive, particularly on the river's eastern bank.[127] Though there are many open spaces along the Anacostia waterfront, they are not currently connected to one another or easy to access from nearby neighborhoods. As previously discussed, major highways and railroads further separate the Anacostia waterfront from the rest of the city.

In addition to the economic development efforts already discussed (many of which include public park or recreation spaces), the Anacostia Waterfront Initiative includes a number of plans for parks that will make public open space more accessible to D.C. residents and visitors, though cost estimates are not available:[128]

- Anacostia Riverwalk will be a 20-mile system of bicycle and pedestrian paths linking 1,200 acres of green spaces along both sides of the river. The D.C. Department of Transportation received $10 million through a congressional appropriation to support the Riverwalk.
- Marvin Gaye Park is a mile-long shoreline along Watts Branch, the largest tributary to the Anacostia River within D.C. The city will restore the park's streams and ponds, improve woods and gardens, and develop a bicycle recreation trail.
- Washington Canal Park plans to transform three blocks of surface parking near the new Washington Nationals' stadium into a public park that will serve as the focal point of a high-density, mixed-use development.
- Kingman Island is a 45-acre island in the Anacostia River, the northern part of which is owned by the National Park Service and the southern part of which is owned by the District. The city government plans to restore the natural wetlands and wildlife habitat of Kingman Island and the nearby five-acre Heritage Island. The restoration will also include trails, canoe tie-ups, and a playground.

These waterfront projects can only be accomplished with committed funding, which is currently not available for all of them.

Financial Limitations on the District's Capital Improvements

Revenue limitations imposed on the District make it difficult, if not impossible, for the city to fund large and costly capital projects. The District of Columbia issues long-term G.O. bonds, usually amortized over 25 to 30 years, to pay for the majority of its capital projects. The city uses its general fund to repay G.O. bonds (principal and interest) through semi-annual payments called "debt service." As such, the cost of debt service is accounted for in the city's annual operating budget. Since G.O. bonds are backed by the "full faith and credit" of the District government, bondholders can demand payment before the city makes any other operating budget expenditures. If the District were to take on more debt than it could afford, it would have to cut back on ongoing services or raise taxes. In addition to bond repayment, the cost of operating and maintaining new capital improvements also impacts the city's operating budget. In short, the number and scale of capital improvements the city can make depends on how much debt service and additional operating costs it can absorb given its revenue stream and other regular expenditures. Since the District's revenue base is constrained by its unique status as the Nation's Capital, the city can only incur a limited amount of debt if it wishes to retain its fiscal health.

“The breadth of these projects demonstrates that the D.C. government is taking dramatic steps to foster a great city both worthy of our nation’s capital and capable of providing high-quality experiences for residents, workers, and visitors.”

There are three common ratios used to determine a city's capacity to manage its debt or incur additional debt: Debt Per Capita; Debt-to-Full Value (Property Value); and Debt Service-to-General Fund Expenditures:[129]

- Debt Per Capita measures the average amount of debt each resident would owe if it were equally distributed. At $10,902 in FY 2008, the District had a higher debt per capita than other major American city. Washington's high debt per capita is partly due to its status as a federal district–since D.C. must fund projects that are typically covered by states, its debt per capita measure includes debt not measured in other cities' ratios.
- Debt-to-Full Value (Property Value) Ratio measures the amount of debt as a percentage of the value of taxable property. At 4.9 percent in FY 2008, the District's overall debt-to-full value ratio was comparable to those of other major municipalities.
- Debt Service-to-General Fund Expenditures Ratio measures the percentage of the budget allocated to debt service. This measure indicates a jurisdiction's ability to afford debt, as well as the degree to which debt limits the flexibility of the operating budget. The District's FY 2008 debt service-to-general fund expenditures ratio was about 9.7 percent, which is acceptable by industry standards.

Wall Street rating agencies use these ratios, among other financial measures, to assign credit ratings to a city's bonds. G.O. bond ratings signal the level of risk associated with a city's ability to pay its debt service and determine interest rates on bonds. Cities with high bond ratings can borrow capital at a low cost, which makes investing in infrastructure more affordable. Credit ratings also reflect a city's overall financial condition and health.

After years of hard work to get its financial house in order, D.C. has improved its bond ratings to the highest level ever with current "A" level ratings. While these ratings are investment-grade, they are still two categories below the highest "AAA" rating. The District's Chief Financial Officer (CFO) has set improvement to the "AA" rating as an intermediate-to-long-term goal for the city.[130]

To fulfill this goal, and thereby sustain its fiscal health, the District must carefully manage its debt. Municipalities commonly use debt caps, often set through city charters or local ordinances, as a means of managing their debt. These debt ceilings are usually applied to either the debt service-to-general fund expenditures ratio or the debt-to-full value ratio.[131] The District has a Congressionally-set legal debt limit of 17 percent for its debt service-to-revenues ratio. However, the CFO maintains that there are two flaws with the Congressionally-set debt ceiling. First, it applies only to general obligation bonds instead of to all tax-supported debt, which is the type of debt measured by rating agencies. Second, the CFO asserts that it is too high to be a meaningful debt ceiling, although some city officials disagree with this assessment.[132]

Given its revenue restrictions and its unstable fiscal history, it is of course imperative that the District live within its means when it comes to capital spending. To maintain the city's high bond ratings and ensure that it does not take on more debt than it can afford, the CFO recommends that the District adopt management debt targets.[133] Specially, the CFO suggests a target of 6 percent or less and an 8 percent firm cap on the District's debt-to-full value (property value) ratio. The CFO also recommends a target of 10 percent or less and a firm cap of 12 percent for the city's debt service-to-general fund expenditures ratio. The CFO has cautioned that while the 12 percent cap would allow the city to modestly increase its debt burden without endangering its current bond ratings, it could

preclude the District from further rating upgrades. To stay within these management targets, the CFO has recommended the city limit its G.O. bonds to approximately $400 million each year, an amount that must cover the city's baseline capital costs in addition to new projects.[134]

The city also increasingly uses tax-supported revenue bonds to fund specific capital improvements associated with economic development. The debt service on revenue bonds is payable from a defined and limited revenue stream generated by the capital project. In D.C., tax-supported revenue bonds include revenue bonds for the Nationals stadium, tax increment financing (TIFs), and payment-in-lieu-of-taxes (PILOT) financing to name a few.[135]

Although tax-supported revenue bonds have an associated revenue stream, credit rating agencies still count these bonds as tax-supported debt, and as such, they are included in the debt portion of the city's debt ratios. To manage this type of debt, the CFO has recommended that the city limit the total amount of tax-supported revenue bonds issued at any one time to $1.5 billion, which along with the other authorized debt, will ensure that the District does not exceed the 12 percent firm cap on its debt service-to-general fund expenditures ratio.[136] In a July 2008 letter to the Mayor and City Council Chair, the CFO noted that only about $431 million of the $1.5 billion had been borrowed so far.[137] However, this amount, combined with bonds that had been approved or are pending approval would make use of nearly $1.4 billion of the $1.5 billion ceiling recommended by the CFO.[138]

Because of the described significant limits on the District's ability to fund capital projects, the city has badly neglected its infrastructure. This legacy, however, does not have to continue. With federal financial support, the District would be able to make the infrastructure investments it needs to become a great city and a capital in which Americans can take pride.

Conclusion

This chapter has identified a dozen major capital initiatives that, if carried out as planned, would be chief components of the physical infrastructure that the District needs to achieve the qualities of a great city. The breadth of these projects demonstrates that the D.C. government is already taking dramatic steps to foster a great city both worthy of our Nation's Capital and capable of providing high-quality experiences for residents, workers, and visitors. However, in order to make this vision a reality, a more robust partnership with the Federal Government is needed.
Due to methodological limitations and a restricted amount of data, we cannot estimate the total cost of these improvements. Nonetheless, the information available suggests that improvements of this scale would costs billions of dollars, and that the city would not be able to finance all of these investments at the levels anticipated and in the time periods envisioned without compromising its fiscal well-being.

The District currently commits half of it's approximately $400 million G.O. bond target (or $200 million annually) to two capital projects alone—public schools modernization and essential WMATA improvements. The city, therefore, only has $200 million left each year within its capital budget for all other projects, whether to finance increments of projects approved in prior years or new initiatives. Beyond that, the city must use money from its annual operating budget to fund capital projects, as it is now doing for a portion of the school modernization work, an unsustainable approach for the long term given the vagaries of the city's local revenue sources. And while the city has issued TIFs and PILOTs to support infrastructure projects, including development for the Anacostia Waterfront and New Communities initiatives, the use of such tools is limited

by the CFO's recommendation to cap the aggregate of all tax-supported revenue bond issuances at $1.5 billion, $1.4 billion of which is already planned for use. Due to such limitations, each of the 12 major initiatives we describe currently faces funding constraints.

These facts suggest that the District requires substantial new resources if it is to build and sustain the infrastructure necessary to support a great city. Recurring federal support to the District of Columbia could significantly help the city realize the capital projects discussed in this chapter. In order to be most effective, federal support should be available for a considerable period of time and be predictable in amount and timing so that thoughtful capital project planning can take place.

Given the special role which the Federal Government plays in the city and the importance to the Nation that its capital achieve a level of greatness worthy of this country, the President and Congress should provide a dedicated, recurring source of support to the District.

ENDNOTES

34 U.S. Census Bureau Population Estimates Program.

35 Hansen and Melanson, *supra note* 33.

36 Many of these qualities are among those identified through Gene Bunnell's survey of members of the American Planning Association in response to questions about the qualities or features of good places to live and work, not just visit. Gene Bunnell, Making Places Special: Stories of Real Places Made Better by Planning (2002). Other literature that reflects these qualities include Suzanne H. Crowhurst Lennard & Henry L. Lennard, Livable Cities Observed: A Source Book of Images and Ideas for City Officials, Community Leaders, Architects, Planners and All Others Committed to Making Their Cities Livable (1995); Christopher B. Leinberger, The Option of Urbanism (2008); Terry Pindell, A Good Place To Live: America's Last Migration (1997).

37 D.C. Department of Planning, The Comprehensive Plan for the National Capital: District Elements (October 2007) ("The Comprehensive Plan").

38 Federal Transit Administration, 2005 National Transit Database, Table 19, *available at* http://www.ntdprogram.gov.

39 U.S. General Accounting Office. Many Management Successes at WMATA, but Capital Planning Could Be Enhanced (July 2001).

40 Lena H. Sun, *Metrorail Reports 17-Month Slide on On-Time Service,* Wash. Post, Jan. 10, 2008, at A1.

41 *Id.*

42 The forty-year useful life requires a major renovation to occur at the lifecycle midpoint.

43 Washington Metropolitan Area Transit Authority, Metro Core Capacity Study: A Prescription for Meeting Market Demand (December 2001).

44 Press Release, Washington Metropolitan Area Transit Authority, Commuters calculate riding Metro costs half as much as driving,(August 5, 2008), *available at* www.wmata.com/about/MET_NEWS/PressReleaseDetail.cfm?ReleaseID=2221.

45 Washington Metropolitan Area Transit Authority, *supra note* 235; General Accounting Office, *supra note* 231.

46 Information on WMATA's capital *needs available* at http://www.wmata.com/about/met_news/PressReleaseDetail.cfm?ReleaseID=2264

47 Federal funds for WMATA's capital projects are dispersed through formula grants, discrete grants authorized by Congress, and homeland security grants.

48 For more on the need for a dedicated source of funding for WMATA, *see* Robert Puentes, The Brookings Institution, Washington's Metro: Deficits by Design (2004).

49 The Bill requires matched funding from the District, Maryland, and Virginia.

50 District of Columbia Transit Improvements Alternatives Analysis *available* at http://www.ddot.dc.gov/ddot/frames.asp?doc=/ddot/lib/ddot/masstransit/dcaa/finalreport_10-28-05.pdf.

51 Downtown DC Business Improvement District, State of Downtown 2007.

52 See The Comprehensive Plan.

53 *Id.*

54 *Id.*

55 *Id.*

56 D.C. Department of Transportation, South Capitol Gateway and Corridor Improvement Study (November 2003).

57 *Id.*

58 D.C. Department of Transportation, Middle Anacostia River Crossings Transportation Study (June 2005). Costs include estimates for mid-term projects and highest-end estimates for long-term improvement options to provide upper bound estimate of total cost.

59 Letter to Mark Kehrli, Division Administrator, Federal Highway Administration from Emeka Moneme, Director of the D.C. Department of Transportation, June 25, 2008.

60 *Id.*

61 D.C. Department of Transportation, Draft South Capitol Gateway Corridor and Anacostia Access Studies, October 2004,prepared by Parsons Brinckerhoff Quade & Douglas, Inc.; Franck Lohsen McCrery, Architects; Justice & Sustainability Associates, L.L.C.; Joseph Passonneau & Partners; October 2004, *available at* www.ddot.dc.gov/ddot/cwp/view,a,1249,g,620007.asp.

62 Designations as of December 20, 2007. *See* EPA

Greenbook, available at www.epa.gov/oar/oaqps/greenbk/gnc.html, (Designations as of December 20, 2007).

63 *See* The Comprehensive Plan.

64 *See* The Comprehensive Plan.

65 *See* 2006 Section 303(d) List Fact Sheet for the District of Columbia, Environmental Protection Agency *available at* http://oaspub.epa.gov/waters/state_rept.control?p_state=DC.

66 U.S. Fish and Wildlife Service. "Update on the Anacostia" *available at* www.fws.gov/chesapeakebay/pdf/AnacostiaUpdate.pdf.

67 District of Columbia Water and Sewer Authority, "Combined Sewer Overflow (CSO) Control Activities Update," *available at* http://www.dcwasa.com/news/publications/080226_COS_Update_April2008_For%20Web.pdf .

68 Information on the details and costs of the long-term control plan from the District of Columbia Water and Sewer Authority, "Combined Sewer Overflow (CSO) Control Activities Update," *available at* http://www.dcwasa.com/news/publications/080226_CSO_Update_April2008_For%20Web.pdf .

69 D.C. Water and Sewer Authority Revised FY2008 and Approved FY2009 Operating Budgets *available at* http://www.dcwasa.com/news/publications/Revised%20FY%202008%20And%20Approved%20FY%202009%20Operating%20Budgets.pdf

70 Personal communication with Yvette Downs, Budget Director at WASA (April 15, 2008).

71 D.C. Water and Sewer Authority Approved FY2007–2016 Capital Improvement Plan *available at* http://www.dcwasa.com/news/publications/Approved%20FY07-FY16%20CIP%20Web.pdf

72 D.C. Water and Sewer Authority Revised FY2008 and Approved FY2009 Operating Budgets *available at* http://www.dcwasa.com/news/publications/Revised%20FY%202008%20And%20Approved%20FY%202009%20Operating%20Budgets.pdf

73 D.C. Voice and 21st Century School Fund. "Special Report on Facilities Readiness for School Year 2007-2008" (2007).

74 *Id.*

75 *Id.*

76 Bill Turque, *Fenty Offers $1.3B Plan to Update Schools.* Wash. Post, Sept. 11, 2008, at B1.

77 Government of the District of Columbia FY 2009 Proposed Budget and Financial Plan.

78 Master Facilities Plan Presentation to DC Council Roundtable, September 25, 2008, DC Office of Public Education Facilities Modernization, *available at* http://opefm.dc.gov/pdf/MFP_Presentation_to_City_Council.pdf

79 Brookings analysis of 2006 American Community Survey data.

80 Brooke DeRenzis, Martha Ross, and Alice M. Rivlin, The Brookings Institution, Envisioning Opportunity: Three Options for a Community College in Washington, D.C. (2008).

81 *Id.*

82 *Id.,* D.C. Appleseed, Hometown Prosperity: Increasing Opportunity for DC's Low-income Working Families (2008).

83 DeRenzis, Ross, & Rivlin, *supra note* 80.

84 Personal communication with Armando Prieto, University of the District of Columbia (April 22, 2008).

85 Susan Kinzie, *Pollard to Quit As President of UDC at End of Month; Resignation Was Sought Board, Sources Say,* Wash. Post, June 20, 2007, at B1. Valerie Strauss, *UDC President Urged Toward Fundraising, Modernizing; Pace of Change Worries Trustees, Sources Say,* Wash. Post, May 8, 2007, at B1. David Nakamura, Chavous Supports UDC's President; Council 'Committed' to School, He Says, Wash. Post, October 9, 2003, at B4.

86 Information on facilities found in the Fire and Emergency Medical Services section of the District of Columbia's Proposed FY2009–2014 Capital Improvement Plan.

87 District of Columbia's Proposed FY2009–2014 Capital Improvement Plan.

88 Information on funds for the Consolidated Forensic and Public Health Laboratory from the District of Columbia FY 2009 Presentation to the Office of Management and Budget, Executive Office of the Mayor, September 11, 2007.

89 Personal communication with Karen Bates, Advisor, Federal Affairs, Executive Office of the Mayor (October 22, 2008).

90 All data on homeownership and rental prices from Margery Austin Turner et al., Fannie Mae Foundation and the Urban Institute, Housing in the Nation's Capital 2007 (2007).

91 All data on homeownership and rental prices from Margery Austin Turner et al., Fannie Mae Foundation and the Urban Institute, Housing in the Nation's Capital 2007 (2007).

92 Peter A. Tatian & G. Thomas Kingsley, Fannie Mae Foundation, District of Columbia Housing Monitor Winter 2008 (2008). This count of subsidized housing includes developments supported by federal subsidies, including public housing, Section 8, Section 202, HOME, CDBG, and Low Income Housing Tax Credits, as well as local subsidies, including the Housing Production Trust Fund, and tax-exempt bonds.

93 Comprehensive Housing Strategy Task Force, Homes for an Inclusive City: A Comprehensive Housing Strategy for Washington, D.C. (2005).

94 All data on health outcomes in this section from Nicole Lurie et al., *Assessing Health and Health Care in the District of Columbia* (RAND Working Paper, January 2008).

95 RAND used geographic units called Public Use Microdata Areas from Census for this analysis that are not analogous to all of the city's ward boundaries. Thus, trends are described as being in "part of", "most of", or "some of" a ward.

96 "Assessing Health and Health Care in the District of Columbia, Phase 2 Report" (Working Paper, June 2008). RAND.

97 Nicole Lurie and Martha Ross, The Brookings Institution, Health Status and Access to Care among Low-Income Washington, DC Residents (2006).

98 *Id.*

99 *Id.*

100 DC Primary Health Care Association, Medical Homes DC Status Report and Capital Projects Summary (June 30, 2008). The health centers would still take on a moderate amount of debt on their own, even with a contribution from the city.

101 Census 2000.

102 2006 American Community Survey.

103 Alan Berube & Bruce Katz, The Brookings Institution, Katrina's Window: Confronting Concentrated Poverty Across America (2005).

104 *Id.*

105 Brookings analysis of EITC data from the IRS Stakeholder, Partnerships, Education, and Communication (SPEC) Return Information Database.

106 Brookings analysis of Bureau of Labor Statistics Local Area Unemployment Statistics Program data.

107 Margey Austin Turnet et al., Fannie Mae Foundation and the Urban Institute, Housing in the Nation's Capital 2005 (2005).

108 *Id.*

109 CensusScope 2000.

110 CensusScope 2005.

111 Brookings analysis of Census 2000 data at the census tract level.

112 Ed Lazere, DC Fiscal Policy Institute, DC's Two Economies: Many Residents are Falling Behind Despite the City's Revitalization (2007).

113 Information on New Communities Initiative is *available at* http://dcbiz.dc.gov/dmped/cwp/view,a,1365,q,605482,dmpedNav,|33026|,.asp

114 Personal communication with Alicia Lewis, New Communities Project Manager, Office of the Deputy Mayor for Planning and Economic Development (June 27, 2008).

115 *Id.*

116 Information on the Anacostia Waterfront Initiative from the District of Columbia Deputy Mayor for Planning and Economic Development's website *available at:* http://dcbiz.dc.gov/dmped/cwp/view,a,1365,q,605699,dmpedNav,|33026|.asp

117 All data in this section is from Downtown DC Business Improvement District, State of Downtown 2007 (2007).

118 Center for City Park Excellence at The Trust for Public Land, Total Parkland as Percent of City Land Area, FY 2006 *available at* http://www.tpl.org/content_documents/ccpe_TotalAcres asPercentofLandArea.pdf (February 2008). High density cities include New York, NY; Washington, D.C.; San Francisco, CA; Boston, MA; Philadelphia, PA; Baltimore, MD; Long Beach, CA; Chicago, IL; Los Angeles, CA; Miami, FL; and Santa Ana, CA.

119 Center for City Park Excellence at The Trust for Public Land. "Total Parkland per 1,000 Residents, By City, FY 2006" at www.tpl.org/content_documents/ccpe_TotalAcres byCityandAgency.pdf (February 2008).

120 Center for City Park Excellence at The Trust for Public Land. "Natural, Designed, and Undeveloped Acres as a Percentage of Total Agency Acres, FY 2006" at www.tpl.org/content_documents/ccpe_TotalAcresasbyPercentage.pdf (February 2008).

121 Center for City Park Excellence at The Trust for Public Land. "Natural, Designed, and Undeveloped Acres."

122 Center for City Park Excellence at The Trust for Public Land. "Recreation Centers per 20,000 Residents, FY 2006" accessed February 6, 2008 at www.inpra.org/pdffiles/research/ccpe_statistics/ccpe RecreationCenters.pdf

123 Center for City Park Excellence at the Trust for Public Land. "Recreation Centers per 20,000 Residents."

124 DPR's 2005 Master Plan assigned a facility conditions index (FCI) score to each of its recreation centers. An FCI compares the cost of keeping and maintaining a given facility with what it would cost to replace it, and is an industry accepted index for analyzing facility infrastructure and operating inefficiencies. According to DPR, a facility with an FCI score between .50 and .70 is in "fair condition," meaning that the facility is functional, but requires maintenance and repairs to continue operation, the costs of which are beginning to escalate. A facility with an FCI score of .70 or more is in "poor condition," meaning that replacement of the facility is generally more cost-effective than keeping it operational through maintenance and repair.

125 Information on upcoming improvements and renovations from the District of Columbia 2009–2014 Capital Improvement Plan.

126 The Comprehensive Plan.

127 The Comprehensive Plan.

128 Information on the Anacostia Waterfront Initiative from the District of Columbia Deputy Mayor for Planning and Economic Development's website *available at* http://dcbiz.dc.gov/dmped/cwp/view,a,1365,q,605699,dmpedNav,|33026|.asp.

129 Letter from the Office of the Chief Financial Officer to Mayor Fenty and Chairman Gray on the District's Debt Burden and Borrowing Constraints (July 8, 2008), *available at* http://cfo.dc.gov/cfo/frames.asp?doc=/cfo/lib/cfo/debt_letter_070908_.pdf.

130 Government of the District of Columbia FY 2009 Proposed Budget and Financial Plan, FY 2009-2014 Capital Appendices.

131 Hansen & Melanson, *supra note* 33.

132 Letter from the Office of the Chief Financial Officer, *supra note* 129.

133 *Id.*

134 Government of the District of Columbia FY 2009 Proposed Budget and Financial Plan, FY 2009-2014 Capital Appendices.

135 For example, the District uses TIFs to provide infrastructure, utilities, or other types of support to a new development by pledging to use a portion of the anticipated tax revenue increase generated by the project to repay bonds. Recently, the District used TIFs to support the Mandarin Oriental Hotel and D.C. USA, a retail anchor development in the Columbia Heights neighborhood of Northwest Washington.

136 Letter from the Office of the Chief Financial Officer, *supra note* 129.

137 *Id.*

138 *Id.*