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Cover Photograph: Capital City Public Charter School by Drew Angerer
HIGH QUALITY EDUCATION FOR ALL CHILDREN IN DC

Every young person deserves a high quality public education in a state of the art facility. Great schools and great facilities go hand-in-hand. Buildings and their sites are the “hardware” that run the “software” of quality education programming. Just as advanced software runs better on great hardware, great teaching and learning are enhanced by great facilities.

More significantly, great facilities offer opportunities to develop teaching and learning approaches that simply are not possible in buildings designed for a different era. In much the same way as tablet computers have ushered in a new universe of “apps,” a new era of modernized facilities offers teachers and students the opportunity to engage in modern ways of teaching and learning, as well as to develop the pedagogical approaches of the future.

The District of Columbia has made enormous strides towards bringing all public school facilities to a level of quality that supports great teaching and learning. Since 2008, the District has spent nearly $1.5 billion and completed work at 64 schools, encompassing 7.3 million square feet. This unprecedented investment in facilities was matched by a proliferation of high quality educational options throughout the city. As a result of these efforts, more families are choosing DC public education than at any point in the past 12 years.

Future progress in public education requires that the District continue to invest in high quality public education facilities. This Master Facilities Plan (MFP) will help to ensure that such investments are strategic and efficient and that we prioritize neighborhoods with the greatest need for capital investment. It is, however, only a starting point. The MFP will inform the District’s Capital Improvement Plan, which includes detailed plans for individual schools.

A PROCESS INFORMED BY DATA AND STAKEHOLDER INPUT

The MFP brings together an unprecedented range of data sets to create a comprehensive fact base that policy makers can use to make strategic decisions about facilities allocation over the next five years. Data was collected for all District of Columbia Public School (DCPS) and public charter school facilities open during the 2011-2012 and 2012-2013 school years, with the exception of alternative and special education facilities.

Data was collected to assess need in five key areas:

» Capacity and Utilization
» Population Forecast/Predicted Enrollment
» Facility Condition and Quality
» Neighborhood Characteristics (Density of children per acre and average travel distance)
» Modernization Equity

This fact base was then shared extensively with stakeholders and with a working group of District agency officials and DCPS and charter school leaders. The working group determined priorities for assessing data as well as guiding principles for development of the plan. Based on these priorities and guiding principles, a prioritization framework and a needs model were developed to assess need across all data sets for each neighborhood cluster.
VISION

Through the process of extensive stakeholder engagement and data analysis with the working group, the following vision emerged:

“Every student in the District of Columbia will have access to high quality facilities and school choices both within his or her neighborhood and throughout the District.”

AREAS OF HIGH NEED

To meet the vision of equitable access to facilities of quality, it is essential to identify the areas where the needs for high quality facilities are most significant. The findings of greatest need are categorized by neighborhood cluster. The neighborhood cluster was used as an apolitical geographic unit large enough to include multiple schools (both DCPS and charter) across wards, and small enough to analyze the District at a level that reveals patterns of need across the city. Since the neighborhood cluster has also been used by other studies conducted by the District, the findings of this study can be considered alongside that other work.

Neighborhood clusters were deemed to have high facility needs based on a composite score from all measures of need, weighted and analyzed according to the prioritization framework. This framework and data synthesis is described in detail in Chapter 6. The clusters of greatest need are illustrated in a map on page 5. For a full list of all DCPS and charters included in the clusters of greatest need, see page 7.

NEIGHBORHOOD CLUSTERS ASSESSED WITH THE HIGHEST NEED

Cluster 2 | Columbia Heights, Mt. Pleasant, Pleasant Plains, Park View

Cluster 7 | Shaw, Logan Circle

Cluster 18 | Brightwood Park, Crestwood, Petworth

Cluster 25 | Union Station, Stanton Park, Kingman Park

Cluster 33 | Capitol View, Marshall Heights, Benning Heights

Cluster 36 | Woodland/Fort Stanton, Garfield Heights, Knox Hill

Cluster 39 | Congress Heights, Bellevue, Washington Highlands
ASSESSMENT OF NEED

COMBINED ASSESSMENT OF NEED

Data Weighting and Ranking of:

- Existing Fit
  - Average GSF per Student Capacity
  - Average GSF per Student Enrollment
  - Average Facility Utilization

- 2017 Projected Fit
  - Enrollment Change
  - Unmet Need
  - Pre-School Unmet Need

- 1998-2012 Modernization Equity
  - Dollars Spent per Enrolled Student
  - Dollars Spent per Student Capacity
  - Dollars Spent per GSF

- Neighborhood Characteristics
  - Average Travel Distance
  - 2012 School Aged Children per Acre
  - 2017 School Aged Children per Acre

- Facility Condition and Quality
  - Facility Condition
  - Facility Quality

- Magnitude of Cluster

Figure E-1
STRATEGIES TO ADDRESS NEEDS

SHORT-TERM STRATEGIES

The following are recommended strategies to address the needs outlined in this plan over the next five years through adjustments to the Capital Improvement Plan (CIP). Some require relatively small investments for short-term gains as follows:

ST1: Target capital resources in clusters with the greatest facility need and large, school-aged populations, but low enrollment.

This recommendation focuses on providing a quality school facility for parents and students to choose from in every neighborhood. Investing in DCPS and charter facilities in clusters where students are choosing to enroll outside of the cluster may increase enrollment, while alleviating over-enrollment pressures on other school clusters.

ST2: Prioritize modernization of school facilities that serve middle school grades in clusters of greatest need.

Currently, the greatest loss in enrollment for both DCPS and charters is in middle schools. Building the community’s confidence that there will be quality school facilities to serve the surge of students currently enrolled in elementary schools is critical to the growth of the city’s schools. A well-executed modernization program for middle schools would send a clear message to families of the city’s commitment to quality middle school education and may contribute to reversing the current, negative trend.

ST3: Pilot facility solutions to support innovative programming.

Throughout both DCPS and charter schools, many school leaders and educators are developing and executing cutting-edge education programs in facilities that do not support innovation. A fund, available to both DCPS and charter schools, should be set up to respond to proposals for facility improvements that support innovative education programming. These small-scale renovations would then be observed and measured for their effectiveness and, if successful, would be used as a model for future modernizations.

ST4: In clusters forecasted to have school-aged population increases, share underutilized space in DCPS facilities with charter schools, community organizations and others that use space to provide students with access to workforce training.

Demographic projections forecast an increase in school-aged population. Facilities that are currently underutilized may provide much needed capacity in as little as the next five years. To maximize the facility asset until that need arises, underutilized space could be leased to organizations that support the community and its youth. This form of co-location may also serve to enhance the student experience and provide workforce development opportunities.

ST5: Develop best practices and design guidelines for all public education facilities.

The DCPS Design Guidelines were last updated in 2009. Since then, the guidelines have been revised to accommodate school-based health centers, production kitchens in high schools, and centers for teens with families. These guidelines should be revised to further
<table>
<thead>
<tr>
<th>Cluster Number</th>
<th>Cluster Name</th>
<th>DCPS Schools</th>
<th>Charter Schools</th>
<th>Category of Highest Need</th>
</tr>
</thead>
</table>
| 2              | Columbia Heights, Mt. Pleasant, Pleasant Plains, Park View | • Bancroft Elementary School  
• Benjamin Banneker Senior High School  
• Bruce-Monroe Elementary School at Park View  
• Cardozo Senior High School  
• Columbia Heights Education Campus  
• Meyer Elementary School  
• Tubman Elementary School | • AppleTree Early Learning PCS: Columbia Heights  
• Carlos Rosario International PCS  
• Cesar Chavez PCS: Bruce Prep Campus  
• Creative Minds PCS  
• DC Bilingual PCS: Columbia  
• DC Bilingual PCS: 14th Street  
• E.L. Haynes PCS: Georgia Avenue  
• LAYC Career Academy PCS  
• Shining Stars Montessori Academy PCS  
• The Next Step: El Proximo Paso PCS  
• YouthBuild LAYC PCS | • Current capacity significantly below 2017 projected enrollment  
• Modernization Equity  
• Neighborhood children travelling long distances to go to school  
• Facility quality and condition need to be improved |
| 7              | Shaw, Logan Circle | • Garrison Elementary School  
• Seaton Elementary School  
• Shaw Junior High School | • Center City PCS: Shaw Campus  
• Community Academy PCS: Butler Bilingual  
• KIPP DC: Grow, Lead, WILL | • Current capacity significantly below 2017 projected enrollment  
• Modernization Equity  
• Facility quality and condition need to be improved |
| 18             | Brightwood Park, Crestwood, Petworth | • Barnard Elementary School  
• Brightwood Education Campus  
• MacFarland Middle School  
• Powell Elementary School  
• Raymond Education Campus  
• Roosevelt Senior High School  
• Sharpe Health School  
• Truesdell Education Campus  
• West Education Campus | • Bridges PCS  
• Center City PCS: Petworth Campus  
• Community Academy PCS: Amos I  
• Community Academy PCS: Amos II  
• Community Academy PCS: Online  
• E.L. Haynes PCS: Kansas Avenue  
• Hospitality Senior High PCS  
• Washington Latin PCS: Middle School Campus (Decatur)  
• Washington Latin PCS: Upper School Campus (Upshur) | • Current capacity significantly below 2017 projected enrollment  
• Modernization Equity  
• Facility quality and condition need to be improved |
| 25             | Union Station, Stanton Park, Kingman Park | • Capitol Hill Montessori at Logan  
• Eliot-Hine Middle School  
• J.O. Wilson Elementary School  
• Ludlow-Taylor Elementary School  
• Miner Elementary School  
• Peabody Elementary School (Capitol Hill Cluster)  
• Prospect Learning Center  
• School-Within-A-School at Logan  
• Stuart-Hobson Middle School (Capitol Hill Cluster)  
• Washington Metropolitan High School | • AppleTree Early Learning PCS: Oklahoma Ave.  
• Friendship PCS: Blow-Pierce Elementary & Middle  
• Options PCS: Middle and High School  
• Two Rivers PCS: Upper and Lower | • Current capacity significantly below 2017 projected enrollment  
• Modernization Equity  
• Facility quality and condition need to be improved |
| 33             | Capitol View, Marshall Heights, Benning Heights | • C.W. Harris Elementary School  
• Davis Elementary School  
• Fletcher-Johnson Education Campus  
• Nalle Elementary School  
• Plummer Elementary School | • KIPP DC: KEY, LEAP, Promise  
• Maya Angelou PCS: Evans High School  
• Maya Angelou PCS: Evans Middle  
• Maya Angelou PCS: Young Adult Learning Center | • Modernization Equity  
• Neighborhood children travelling long distances to go to school  
• Facility quality and condition need to be improved |
| 36             | Woodland/Fort Stanton, Garfield Heights, Knox Hill | • Garfield Elementary School  
• Stanton Elementary School | • Achievement Preparatory Academy PCS  
• Center City PCS: Congress Heights Campus  
• Eagle Academy PCS: The Eagle Center at McGone  
• Early Childhood Academy PCS: Walter Washington Campus  
• Friendship PCS: Southeast Elementary Academy  
• Friendship PCS: Technology Preparatory Academy  
• Imagine Southeast PCS  
• National Collegiate Preparatory PCS | • Modernization Equity  
• Neighborhood children travelling long distances to go to school  
• Facility quality and condition need to be improved |
| 39             | Congress Heights, Bellevue, Washington Highlands | • Ballou Senior High School  
• Ferebee-Hope Elementary School  
• Hart Middle School  
• Hendley Elementary School  
• King Elementary School  
• M.C. Terrell/McGogney Elementary School  
• Patterson Elementary School  
• Simon Elementary School | | • Modernization Equity  
• Neighborhood children travelling long distances to go to school  
• Facility quality and condition need to be improved |

*Figure E-2: Neighborhood Clusters with the Highest Facility Need*
address standards for pre-K space and to reflect changes in teaching and learning practices required by the DC Common Core Standards. The revision of the DCPS Design Guidelines should draw on lessons learned from the DCPS modernization program, charter school design strategies and best practices in school design.

**ST6: Create environments for professional educator collaboration within each school and across DCPS and charter schools.**

High quality space for professional collaboration among educators will help create physical environments that attract and retain the best teachers, and support a culture of collaboration and innovation.

**ST7: Establish a consistent and streamlined data collection and management process.**

This MFP gathers comprehensive data on the capacity, building conditions and demographic changes of schools and their facilities. Collecting the facilities-related data necessary for the development of this plan showed that data related to school facilities is dispersed across several agencies, not updated regularly and difficult to access. The DC Department of General Services, DCPS, individual charter schools, Public Charter School Board, Office of Planning and Office of the State Superintendent of Education all manage a facet of the data, and each agency collects, stores and maintains its data differently. This data must be consolidated and updated on a regular basis to provide decision makers with the tools to allocate resources more effectively and efficiently.

**ST8: Upgrade the main entrance of every school that is yet to be modernized.**

The entrance of a school sets the tone for creating a positive or negative school environment. An entrance that is transparent to the street communicates a welcoming and open atmosphere. An entrance that celebrates student achievement and school culture instills pride in students and the school community. Currently, among the DCPS schools yet to be modernized, facilities consistently received low scores in a category titled “Welcoming Entrance” in the qualitative assessment used in this study. For a relatively small investment, the face of every school yet to be modernized could be transformed, ushering a new era of student and community engagement.
LONG-TERM STRATEGIES

Some of the recommended strategies for addressing the needs outlined in this MFP reach beyond the five-year horizon of this report. These strategies may demand longer-term planning and may require more interagency coordination in order to be implemented. However, all of them are essential to addressing the systemic issues that have led to some of the most acute needs identified in this report.

LT1: Reassess the phased modernization approach.

The phased modernization approach has successfully improved the quality of the learning environments of a majority of DCPS facilities in a short period of time. Since no Phase 2 modernizations have been completed, there is an opportunity to redefine the phased approach to focus on facility modernizations in clusters of greatest need. Many of these schools are forecasted to have strong enrollment pressure; the building systems, access for people with disabilities and building enclosures must be addressed to accommodate the increased demand.

LT2: Allow for a school development approach that can include additional site or facility uses.

Where conditions allow, school construction could incorporate additional site or facility uses such as health clinics, co-working space for startup businesses, libraries or senior services. A mixed-use development approach would create opportunities for co-location of uses that support students before and after schools, and enhance learning. It would also help to alleviate some of the financial burden of school construction and maintenance and would maximize the use of facilities outside of the school calendar, such as during the summer months.

LT3: As part of each subsequent MFP, convene a working group of stakeholders to assess and refresh the principles that guide the plan.

The working group was an invaluable asset in the formulation of this MFP. In the future, it will be important to continue to have a dialogue with objective stakeholders representing all aspects of public education in the District.
CHAPTER 1
Master Facility Plan Vision
BACKGROUND

As part of the reform effort, the District has undertaken a substantial rehabilitation program to modernize the physical infrastructure for our public schools since 2008. The District has spent nearly $1.5 billion and completed work at 64 schools, encompassing 7.3 million square feet.

The Office of the Deputy Mayor for Education conducted individual and small group meetings with public education stakeholders from September 2012 to January 2013 in order to understand the needs for public education facilities. Based on this stakeholder input, the Deputy Mayor’s office developed a series of priorities for schools.

The stakeholder meetings brought forth a range of smart, thoughtful and urgent recommendations. Many stakeholders, from students and school leaders to community activists, said we need to do a better job of allocating resources equitably for all students regardless of the ward where a student lives or attends school, and regardless of whether a student attends a District of Columbia Public School (DCPS) school or a charter school. It is the responsibility of the District government to provide access to high quality school facilities to each student residing in the District.

Stakeholders also expressed an urgent desire for more community involvement both in the planning process and in the schools themselves. They want to see more integrated services such as community uses and complementary services in school buildings. The stakeholders also would like the facilities to be available for community use after school hours and mixed-use development placed in and around the schools.

Most importantly, stakeholders insisted that facility development should follow the demands of educational programs and funding should be more flexible. They want better oversight of spending and easier-to-access financing and facility resources for charter schools. They suggested developing a more supportive framework for DCPS facility modernization, in that DCPS schools needing full renovations and upgrades should receive them at one time rather than through a phased approach over many years.

THE PROBLEM

At present, there is little coordination of school facilities needs with expenditures across all public schools, for both DCPS and charter schools. Currently DCPS is midway through an extensive modernization program that has no direct link to a citywide education program plan.

Enrollment is uneven across the District and, as a result, DCPS has now completed a closures and consolidation plan, which will close as many as 15 schools. Additionally, several schools in the DCPS inventory have sat vacant since they were closed in 2008 without a long-term plan for future use or an interim plan for the reuse of these facilities. Many of the schools that remain open are often closed to the broader community.

At the same time, the network of charter schools is growing haphazardly. Charter schools open wherever they can find space that is both affordable and sufficient for their needs, and many remain in substandard facilities. Charter schools’ facility needs are not coordinated with DCPS facility plans and conflict at times.
Furthermore, charter schools often raise concerns about their lack of access to facilities, but there is no single District entity or mechanism for collecting information about charter school facility conditions or needs.

For both DCPS and charter schools, the data for facilities is inconsistent, inaccessible or both. Facility planning and development for schools is fragmented across several District agencies.

All of these challenges speak to the central problem: it is nearly impossible to make strategic facility investments without a comprehensive fact base for DCPS and charter school facility needs and without coordination between facilities needs and educational programming. This lack of coordination around facilities perpetuates the conflict between DCPS and charter schools, and requires the District to spend money inefficiently on capital improvements to schools.

MISSION STATEMENT

To address these problems, this Master Facilities Plan builds a decision framework for allocating funds efficiently and equitably to meet the needs of every student and family, and every community in the District.

To meet this mission, the plan provides policymakers with a comprehensive fact base of school facilities needs across the District and a framework for coordinating and allocating resources strategically based on needs and the priorities of the city and stakeholders. Rather than suggesting how resources could be allocated to building projects, this plan provides guidance on how to use resources for schools based on where they are most needed and will do the most good.

VISION

Through the process of extensive stakeholder engagement and the analysis of the data with the working group, the following vision emerged:

“Every student in the District of Columbia will have access to high quality facilities and school choices both within his or her neighborhood and throughout the District.”

Critical to this vision are improved access and quality.

In this plan, access is considered in terms of both geography and capacity. In terms of geography, every student should be able to enroll in a high quality school facility, whether charter or DCPS, preferably in the neighborhood where he or she lives. In terms of capacity, the public education system must have enough facilities to provide all students with access to high quality learning environments.

Additionally, high quality public education facilities should serve as resource centers in every community, providing programs and activities for those residents with and without children in the public education system to come together, learn and recreate.

Quality is considered as both the capabilities of school buildings to support top-tier programming and the architectural character of the facilities. Every student should have access to quality educational programming and facilities supportive of these great programs. All students, no matter where they live, should have access to a school that is an inspiring place to learn and represents the District’s commitment to education and its pride in its future generations.
The District of Columbia
DCPS Schools to be Consolidated at the end of 2012/2013 and 2013/2014 School Years

DCPS & CHARTER SCHOOL FACILITY LOCATIONS

LEGEND

Neighborhood Cluster
- Water
- No Schools Present in Cluster
- Schools Present in Cluster
- Public Charter Schools (PCS)
- District of Columbia Public Schools (DCPS)
- DCPS Schools to be Consolidated at the end of 2012/2013 and 2013/2014 School Years

Cluster Name
1. Kalorama Heights, Adams Morgan, Lamire Heights
2. Columbia Heights, Mt. Pleasant, Pleasant Plains, Park View
3. Howard University, Le Droit Park, Cardozo/Shaw
4. Georgetown, Burleith/Hillandale
5. West End, Foggy Bottom, GWU
6. Dupont Circle, Connecticut Avenue/K Street
7. Shaw, Logan Circle
8. Downtown, Chinatown, Penn Quarters, Mount Vernon Square, North Capitol Street
9. Southwest Employment Area, Southwest/ Waterfront, Fort McNair, Bussard Point
10. Hawthorne, Barnaby Woods, Chevy Chase
11. Friendship Heights, American University Park, Tenleytown
12. North Cleveland Park, Forest Hills, Van Ness
13. Spring Valley, Palsades, Wesley Heights, Foxhall Crescent, Foxhall Village, Georgetown Reservoir
14. Cathedral Heights, Mcclean Gardens, Glover Park
15. Cleveland Park, Woodley Park, Massachusetts Avenue Heights, Woodland-Normanstone Terrace
16. Colonial Village, Shepherd Park, North Portal Estates
17. Takoma, Brightwood, Manor Park
18. Brightwood Park, Crestwood, Petworth
19. Lannan Park, Queens Chapel, Fort Totten, Pleasant Hill
20. North Michigan Park, Michigan Park, University Heights
21. Edgewood, Bloomingdale, Truxton Circle, Eckington
22. Brookland, Brentwood, Langston
23. Ivy City, Arborgiem, Trinidad, Carver Langston
24. Woodridge, Fort Lincoln, Gateway
25. Union Station, Stanton Park, Kingman Park
26. Capitol Hill, Lincoln Park
27. Near Southeast, Navy Yard
28. Historic Anacostia
29. Eastland Gardens, Kenilworth
30. Mayfair, Hillbrook, Mahanary Heights
31. Deanwood, Burnville, Grant Park, Lincoln Heights, Fairmount Heights
32. River Terrace, Benning, Greenway, Dup Park
33. Capitol View, Marshall Heights, Benning Heights
34. Tuxedo, Fairlawn, Randal Highlands, Pt Branch, Fort Davis Park, Fort Dupont
35. Farifax Village, Naylor Gardens, Hillcrest Summit Park
36. Woodland/Fort Stanton, Garfield Heights, Kneel Hill
37. Sheridan, Barry Farm, Buena Vista
38. Douglas, Shlepy-terrace
39. Congress Heights, Bolling, Washington Highlands
40. Walter Reed
41. Rock Creek Park
42. Observatory Circle
43. Saint Elizabeths
44. Joint Base Anacostia-Bolling
45. National Mall, Potomac River
46. National Arboretum, Anacostia River

Figure 1.1
GUIDING PRINCIPLES
Extensive stakeholder engagement included approximately 40 stakeholder meetings with City Council members, District agency officials, community groups, parents and students, and an intensive, three-month brainstorming process with a working group of stakeholders. From this public process, the following principles emerged to guide this Master Facilities Plan. They served as the lens through which need was assessed and recommendations were made.

GUIDING PRINCIPLE ONE: EQUITY-FOCUSED PLANNING.
» Provide equitable access to capital resources to meet student needs.
» Provide both facility and program resources where needed and tie these resources to clear and enforceable accountability measures.
» Provide full, not phased, modernizations for some DCPS facilities.
» Encourage mixed-use development to make school modernizations and new construction easier to finance.

GUIDING PRINCIPLE TWO: BUILD FACILITIES AROUND QUALITY EDUCATIONAL PROGRAMS.
Ensure school facility design supports educational programs while maximizing flexibility, sustainability, security and community involvement.

GUIDING PRINCIPLE THREE: ALIGN INVESTMENTS WITH PROJECTED STUDENT DEMAND.
Schedule facility planning and modernization, and locate new schools to inspire confidence in a student’s continuous access to quality schools throughout his or her time in public schools (i.e., feeder patterns). These investments should align with regularly updated student enrollment forecasts and other trends, including school-aged children population projections.

GUIDING PRINCIPLE FOUR: INVEST IN OUR COMMITMENT TO CRADLE-TO-CAREER EDUCATIONAL OPPORTUNITIES.
Expand access to quality early childhood programs and to workforce training opportunities.

GUIDING PRINCIPLE FIVE: INCREASE COLLABORATION AND PARTNERSHIP AMONG SERVICE PROVIDERS.
Strengthen collaboration among District public schools and charter schools through sharing space, knowledge and best practices to improve quality. Embrace partnerships with outside groups, such as museums, universities, community-based organizations and private-sector partners, to increase opportunities for students.

GUIDING PRINCIPLE SIX: DESIGN COMMUNITY-CENTERED SCHOOLS.
Design and operate schools as centers of the community that support high quality educational outcomes and encourage a mix of community use, services and programs.
LEARNING FROM RESEARCH AND BEST PRACTICES

The District of Columbia is certainly not alone in facing the difficulties of uneven enrollment, more buildings than needed for the current school population, an aging facility inventory and a desire to provide facilities for both public and charter schools. Numerous school districts across the United States face the same challenges.

Therefore, this Master Facilities Plan is shaped by approaches to school planning and design that have succeeded in other parts of the country. These national best practices include the following:

RIGHT-SIZE SCHOOLS TO SUPPORT ENROLLMENT AND CONTEMPORARY TEACHING AND LEARNING METHODS.

The average American school is more than 42 years old. Most facilities in many urban school districts were built at the start of the 20th century and after World War II. During both of these periods of intense school building, facilities were sized to support growing student populations and a walkable neighborhood access to facilities. Since then, the school-aged population has declined, high school enrollments have decreased, and neighborhood demographics have changed. All of these changes have left many school districts, like the District of Columbia, burdened with too much space overall and many facilities that are no longer located where the strongest student demand resides.

In addition, older schools were designed to support lecture-based teaching. Classroom size was minimized to maximize the number of classrooms in a single building and schools had few specialized spaces to support the variety of enhancement programs and pedagogies now offered to students.

Today, students don’t only learn from a teacher lecturing in front of a classroom. They learn through collaborating together in small groups, working on independent projects, conducting research and building learning skills online (just to name a few present-day methods). Therefore, in many cases, District public school facilities are facing a problem where they have a lot of space, but they have the wrong types of space to address contemporary educational models. Public school facilities have too many classrooms and corridors, and not enough places for contemporary learning. By reconfiguring the interior organization of buildings to reduce circulation and increase space for learning, many schools built during the early and mid-20th century can support 21st-century learning.

CREATE A VARIETY OF SPACE SIZES AND TYPES IN MODERNIZED SCHOOLS.

Given the range of learning activities in which students are now engaged, a wider variety of space types and sizes is needed. Planning of school facilities must be more nuanced than simply a classroom count multiplied by student-teacher ratio. There must be space for small group collaboration, project-based work, student presentations to groups larger than 20 or 30, individual consultations with resource teachers and para-professionals and, of course, interaction with computer technology.

In addition, there must be places to celebrate student
work, both complete and in progress; and to “think out loud” in public on both physical writing surfaces and in digital space. All of these spaces are most useful when they are integrated rather than segregated, just as subject matter is becoming more integrated throughout the curriculum.

Schedules are changing from short, regimented periods to longer blocks that allow students to become more immersed in learning and engaged in multiple learning activities. Students and teachers want to be able to move seamlessly from one activity to another.

Rather than becoming masters of content, students are being asked to become master learners with deep understanding of key concepts used to absorb knowledge throughout their life. All of this learning cannot be done at a desk in a 600-square-foot or even a 900-square-foot classroom.

SUPPORT LEARNING IN COMMUNITIES.
Research has shown that students perform better in smaller schools. But in large urban school districts, small schools in stand-alone buildings, particularly at the middle school and high school level, are not economically feasible. Even so, the most important aspects of these schools can be replicated by creating smaller communities of learners, both student and teacher, within larger schools. These smaller communities are variously called “schools within schools,” “academies,” “small learning communities,” “personal learning communities,” “educational houses,” or simply “learning communities.” Although each of these types embraces a
slightly different approach, all are based on the idea that students learn best when they have a strong connection to educators, strong relationships with fellow students and feel known and valued - all hallmarks of small schools.

Moreover, teachers also excel when they feel known and valued, and can collaborate with peers and learn from them. A recent study in the Stanford Journal of Social Innovation showed a tremendous increase in teacher performance when teachers could collaborate with high-performing peers.

The DCPS Design Guidelines call for student learning communities in various forms at all grade levels and professional learning communities. This plan recommends that these communities should be supported by the design of the school building and given a physical presence. The Educational Facilities Effectiveness Instrument (EFEI) measured the extent to which learning communities are supported by facilities and have a physical presence in the school.
CHAPTER 2
Master Facility Plan Process
PROJECT COMMUNICATION AND OUTREACH

The nearly year-long process of this Master Facilities Plan was designed to meet three goals:

» Assemble a comprehensive fact base for all public education facilities, both DC Public Schools (DCPS) and charter schools, to inform strategic decisionmaking.

» Seek the input, values and priorities of as many public education stakeholders as possible.

» Develop a regular, ongoing process for assessing facility needs and establishing funding priorities.

To meet the first goal, the Master Plan team worked closely with the Office of the Deputy Mayor for Education (DME), DC Office of Planning (OP), DC Department of General Services (DGS) and representatives of DCPS and charter schools to assemble previously disparate sets of data into a unified, comprehensive fact base. The data collected, methods of analysis and limitations of the data are all discussed in this chapter under the heading Data Sets.

To meet the second goal, an extensive communications and outreach strategy was developed to notify stakeholders of the planning process and provide accurate information about the plan. This process also solicited feedback on the values and priorities that should drive the plan and is described in this chapter under Project Communications and Outreach.

To meet the third goal of a regular process, a thorough prioritization framework and needs model were designed to assess need based on 14 different measures. The needs model includes measures from the data available in the current fact base and also outlines data points that should be gathered and measured in future plans. The needs model can also be used as a tool by decisionmakers to regularly assess need and the progress of the District in meeting the vision of the plan. The prioritization framework and needs model is discussed in greater detail in Chapter 6.

The Master Facilities Plan involved collaboration among educational stakeholders for both DCPS and charter schools, elected officials, District residents and non-profit organizations. The planning team also worked closely with an Executive Committee comprised of leaders from the DC Department of General Services, Public Charter School Board and District of Columbia Public Schools who offered guidance, support and vision. Five meetings were held with the Interagency Working Group in order to review the data and establish guiding principles for the Master Facilities Plan.

STAKEHOLDER MEETINGS

The Deputy Mayor for Education (DME) engaged community stakeholders at the onset of the process to disseminate accurate information about the Master Facilities Plan, generate dialogue about the plan and increase stakeholder investment in the process. Through these stakeholder meetings, the DME collected an extensive list of criteria that the community deems important to facilities decisions. In addition to community stakeholders, the DME and Master Plan team consulted individual District of Columbia Council members at the onset of the process to understand the key issues the plan should address and the priorities of their constituents.
This phase of the process focused on attaining the following outcomes:

» Identifying a Shared Value Proposition – Through small group discussion, the members of the newly established and diverse working group realized they shared many ideas on what an improved DC public education system could look like.

» Sparking Creativity and Innovation – By offering initial ideas in a free flow manner, each group of stakeholders felt its viewpoint was heard, not crowded out. This method also gave stakeholders the flexibility to be creative in solving a large-scale problem. It helped extend their views beyond the current plans and processes to focus on key recommendations for the future. The suggestions became a critical element of long-range, five-year planning, as opposed to immediate short-term tactical solutions.

» Establishing a Solution-Oriented Mindset – A portion of the discussion focused on answering, “How do we get there?” This question helped to orient the group towards its objective of answering, “What could/should the District be doing?”

» Enhancing Team Dynamics – The small groups opened the lines of communication and understanding among members who were unfamiliar with each other. They helped engender trust and respect as a part of collaborative decisionmaking.

DEVELOPING THE GUIDING PRINCIPLES FRAMEWORK

Members of the Interagency Working Group collaborated to generate a framework of proposed areas for the District to focus on over the next five years in its effort to improve public schools.

BRAINSTORMING “WHAT’S THE VISION”

During the first meeting, the DME tasked the working group to think about a grand vision for DC public education. The working group divided into three groups for this brainstorming exercise and each shared their best answers to the question, “What might our network of public schools (DCPS and charter) look like in 2020 and how do we get there?”
DEFINING AND REFINING THE GUIDING PRINCIPLES

During the second meeting, the working group had the opportunity to review and react to an initial Straw Man Decision Framework. The idea behind this decision-making concept is to develop an initial set of ideas to solve a problem and subject them to critical analysis and testing. The feedback received during this meeting helped to develop a much stronger set of principles to guide the next stage of the planning process.

Working group members collectively agreed that “language matters” when addressing a topic as nuanced as public education and they requested an opportunity to discuss and address key topics of relevance up front to be sure all participants were starting with a common understanding of the issues. As a result, the meeting structure was amended to encourage deeper discussion among the working group members to define and shape the principles behind the Master Facilities Plan, from improving classrooms to transforming schools into community assets.

INTEGRATING THE TECHNICAL MEMOS

Working group members were also tasked with reviewing a series of technical memos during their second, third and fourth meetings. These reports and maps helped articulate the current state of school facilities and current
and future population trends in DC. Working group members reviewed and discussed each memo, then responded to select questions. They also refined the principles guiding the Master Facilities Plan.

INTEGRATING THE STAKEHOLDER MEETING COMMENTS

Before the third meeting, working group members were provided notes from the extensive stakeholder meetings. They were provided an opportunity to ask clarifying questions and incorporate additional ideas and criteria. Specific language was refined to capture and effectively articulate the ideas of the working group.

Finally, working group members agreed upon and validated a final version of the guiding principles (see full list in Chapter 4). With this task completed, the group transitioned into the process of prioritizing the guiding principles.

PRIORITIZING THE GUIDING PRINCIPLES

During the fifth and final meeting, the working group integrated use of a software program called Decision Lens into the process to help prioritize the guiding principles of the Master Facilities Plan.

Decision Lens allows multiple and diverse stakeholders to come together and evaluate key decisions through a transparent process. This software assists with group decisionmaking even when it is more strategic, subjective or intangible than a simple “yes” or “no.” The software applied the Analytic Hierarchy Process (AHP), a decisionmaking technique that helped participants prioritize the guiding principles. This structured and rational framework allows working group members to set priorities using a tool called “pairwise comparisons.” By placing two guiding principles side-by-side, this tool allowed working group members to evaluate which principle is more important to them and how strongly they feel about its importance. Evaluations were marked using a rating scale of 1 to 9, 1 being equal and 9 being extreme.

The working group members’ ratings were translated through the software into numerical values used to prioritize the guiding principles.

PRIORITIZED LIST OF GUIDING PRINCIPLES

The prioritized guiding principles can be leveraged as a reference point for future decisions around facilities planning, including:

» Identifying geographic areas most in need of attention and resources.

» Determining the types of solutions or capital investments to target.

» Capturing and integrating the perspectives of both DCPS and Public Charter School working group members within the planning framework.
RELATIONSHIP TO PREVIOUS STUDIES

2008 AND 2010 DCPS FACILITY MASTER PLANS

The DCPS’s 2010 Master Plan builds on the foundations established in the 2008 master plan. It sets forth a continuous, phased approach to school modernization with the goal of tending to every school as quickly as possible so that learning environments are improved.

The guiding principles from the 2008/2010 DCPS Master Facilities Plans are:

» Modernize and enhance classrooms.
» Ensure buildings support programs.
» Accommodate emerging or existing feeder patterns and enrollment trends.
» Leverage the school as a community asset.

CAPITAL IMPROVEMENT PLAN (CIP)

Based on the 2010 Master Plan, the District government began a phased approach to DCPS school modernizations to accelerate construction and maximize impact on the learning environment. This phased approach continues today. The modernization program is funded through the annual Capital Improvement Plan, which selects projects to move forward and funds them.

Phase One - Academic Spaces

The basic areas to be updated during a Phase One modernization include core academic classrooms, corridors, entry lobbies and rest rooms.

Phase Two - Support Spaces

The second phase of modernizations focuses on strengthening the support components within a school, including computer labs, auditoriums, grounds, gymnasiums and locker rooms. These spaces must be renovated to support a full range of extra-curricular offerings that help create a well-rounded educational environment.

Phase Three - Facility Components

This phase extends the life of each school facility through upgrades to building systems, such as electrical wiring and heating and cooling equipment.

High School Modernizations

All high schools and other select facilities are upgraded through comprehensive modernization, which combines all three phases within one effort.

IFF STUDY

In 2011, the Deputy Mayor for Education commissioned IFF, a non-profit consultant and community finance organization, to assess the quality of education options available to families in different parts of the District. This study analyzed the gap between enrollment and access to high performing schools to understand where additional capacity in high quality schools was needed most. The results of the analysis highlighted 10 neighborhood clusters of the District with the greatest need for more high quality programs.

The study is a point-in-time analysis and provides a starting point for looking at student needs through a geographic lens. It is not the foundation for the Master Facilities Plan, but provides a basis for comparing the capital needs of District schools with the areas of greatest need for more high quality programs.
DCPS CONSOLIDATION AND REORGANIZATION PLAN

The District of Columbia Public Schools (DCPS) began a reevaluation of their boundaries and consolidation needs in November 2012. The DCPS planning process is separate from this Master Facilities Plan. DCPS and DME have worked together to share data and maintained open lines of communication to make effective decisions to support quality educational outcomes in the District. The consolidations are reflected in the prioritization framework (Chapter 6) of this master plan.

GEOGRAPHIC ASSESSMENT

NEIGHBORHOOD CLUSTER LEVEL ANALYSIS

The geographic unit for the Master Facilities Plan fact base is the neighborhood cluster. These 46 clusters, defined by the District of Columbia Office of Planning (OP), are used for community planning purposes by the District and generally define recognizable neighborhoods (Figure 2.2). The Master Facilities Plan relies on the neighborhood cluster as the key geographic unit to provide consistency between this study and others undertaken by the District; to examine the entire city at a scale that is small enough to determine meaningful differences in the data sets across the neighborhood clusters; and to utilize politically neutral geographic boundaries and geographic units that are not unique to DCPS or charter schools.

ELEMENTARY SCHOOLS

Throughout this report, elementary schools in the DCPS and charter school inventory are used for comparison because they are represented more evenly throughout the District, their capacity is more consistent between DCPS and charters, and they represent the entry point into the public education system.

DATA SETS

The Master Facilities Plan is based on data collected from all over the District. The plan considers the priorities set forth by the guiding principles and working group in assessing need to improve DCPS and charter school facilities across the District at the neighborhood cluster level.

CAPACITY

School capacity numbers were obtained from DCPS and charter schools. When unavailable, a proxy for charter school capacity numbers was created by combining the charter enrollment numbers plus the additional open seats available for each school (as reported by each individual charter school).

ENROLLMENT

Enrollment data for both DCPS and charters was gathered from the Office of the State Superintendent of Education (OSSE) October 2011 Audited Enrollment.

UTILIZATION

Cluster utilization was determined by averaging each school’s utilization rate within the cluster. Each school’s utilization rate was determined by dividing its enrollment by its capacity.
**KEY MAP**

**DCPS & CHARTER SCHOOL FACILITY LOCATIONS**

**Cluster Number**

1. Kalaroma Heights, Adams Morgan, Lanier Heights
2. Columbia Heights, Mt. Pleasant, Pleasant Plains, Park View
3. Howard University, Le Droit Park, Cardozo/Shaw
4. Georgetown, Burleith/Hillandale
5. West End, Foggy Bottom, GWU
6. Dupont Circle, Connecticut Avenue/K Street
7. Shaw Logan Circle
8. Downtown, Chinatown, Penn Quarters, Mount Vernon Square, North Capitol Street
9. Southwest Employment Area, Southwest/Waterfront, Fort McNair, Buzzard Point
10. Hawthorne, Barnsley Woods, Chevy Chase
11. Friendship Heights, American University Park, Tenleytown
12. North Cleveland Park, Forest Hills, Van Ness
13. Spring Valley, Palsades, Wesley Heights, Foxhall Crescent, Foxhall Village, Georgetown Reservoir
14. Cathedral Heights, Mcclean Gardens, Glover Park
15. Cleveland Park, Woodley Park, Massachusetts Avenue Heights, Woodland-Normanstone Terrace
16. Colonial Village, Shepherd Park, North Portal Estates
17. Takoma, Brightwood, Manor Park
18. Brightwood Park, Crestwood, Petworth
19. Lamont Hills, Queens Chapel, Fort Totten, Pleasant Hill
20. North Michigan Park, Michigan Park, University Heights
21. Edgewood, Bloomingdale, Truxton Circle, Eckington
22. Brookland, Brentwood, Langston
23. Ivy City, Arboretum, Trinidad, Carver Langston
24. Woodridge, Fort Lincoln, Gateway
25. Union Station, Stanton Park, Kingman Park
26. Capitol Hill, Lincoln Park
27. Near Southeast, Navy Yard
28. Historic Anacostia
29. Eastland Gardens, Kenilworth
30. Mayfair, Hillbrook, Maharrin Heights
31. Deanwood, Burville, Grant Park, Lincol Heights, Fairmont Heights
32. River Terrace, Benning, Greenway, Dup Park
33. Capitol View, Marshall Heights, Benning Heights
34. Tuxedo, Fairlawn, Randle Highlands, Pk Branch, Fort Davis Park, Fort Dupont
35. Fairfax Village, Naylor Gardens, Hillcrest Summit Park
36. Woodland/Fort Stanton, Garfield Heights
37. Kresa Hill
38. Sheridan, Barry Farm, Buena Vista
39. Douglas, Shipley Terrace
40. Congress Heights, Belvue, Washington Highlands
41. Walter Reed
42. Rock Creek Park
43. Observatory Circle
44. Saint Elizabeths
45. Joint Base Anacostia-Bolling
46. National Mall, Potomac River

**LEGEND**

- Water
- No Schools Present in Cluster
- Schools Present in Cluster
- Public Charter Schools (PCS)
- District of Columbia Public Schools (DCPS)
- DCPS Schools to be Consolidated at the end of 2012/2013 and 2013/2014 School Years

Figure 2.2
**POPULATION AND ENROLLMENT FORECAST**

The District of Columbia Office of Planning (OP) provided multiple sources of demographic data described below:

Historical 2000 and 2010 US Census data was provided, including information on population, race and ethnicity, gender, age cohorts, households, families, income, educational attainment, birth and fertility rates, death and survival rates. OP updated the population and age cohort estimates to 2012 to reflect post-US Census interim survey projections.

Population forecasts for the 46 neighborhood clusters in the District of Columbia from 2012 to 2022 were prepared by the DC Office of Planning’s State Planning Center with assistance from its citywide planning division. The population forecasts were based on the combination of extrapolating population cohort changes and adding projected changes in residential development activity (housing units) planned through 2022.

The cohort component method forecasts population change as a function of the present (baseline) population and factors for three components of demographic change over time, focusing on fertility, mortality and migration.

Tracking future development activity (housing) by cluster as an added stimulant to population change was categorized in four stages of development: 2010 to 2015 data records completed or under construction projects; 2015 to 2020 are projects in the planning pipeline expected to deliver by 2020; 2020 to 2025 include conceptual projects; and 2020 to 2030 project conditions comprising larger neighborhood conceptual projects (i.e. St. Elizabeths, Hill East, McMillan Reservoir, etc.). Each project was coded based on specific characteristics, primarily being single family houses versus, multifamily housing and rental versus ownership, and assigned an estimated number of children and adults.

**DEFINITION OF SCHOOL-AGED CHILDREN**

To get a sense of the number of children who may attend public schools in the future, this report utilizes population forecasts for “school-aged children.” School-aged children are defined as children from ages 3-18 years old. Within this group, cohorts for each school type have been defined as follows:

- Elementary school: ages 3-11
- Middle school: ages 12-14
- High school: ages 15-18

The population forecasts predict only the number of children ages 3-18 that will reside in the District of Columbia based on a number of indicators, including but not limited to: fertility rates, birth rates, mortality rates, infant deaths, life expectancy, migration patterns, life-style characteristics, etc. It should be noted that historical data for school-aged children from 2000 and 2010 is based on past available cohort age groups, which have been defined as 5-9, 10-14 and 15-17.

Notwithstanding that the vast majority of potential school enrollment is derived from traditionally defined neighborhood-based age cohorts, actual total enrollment often differs to a degree from population forecasts. Total enrollment includes groups unaccounted for in the population forecast as follows:

- Students in adult education programs.
- Children who may not be permanent DC residents or, in some cases, do not reside in the District, but are enrolled in DCPS or charters.
FACILITY CONDITION
The information regarding the physical state of schools reflects the average state of repair of DCPS facilities on a neighborhood cluster basis. It is derived from the facility assessments in the 2008 Master Plan, which was the last reliable data point for all DCPS facilities at the time of printing.

FACILITY QUALITY
The information about the average suitability and architectural quality of school facilities on a neighborhood cluster basis comes from a detailed survey of facility quality for charters and the modernization phase of the DCPS schools. Given that the focus of Phase 1 modernizations was improvement of the learning environment, this study assumed that modernization improved facility quality. For a more detailed discussion of the data and methodology of the facility condition and quality studies, see Chapter 5.

FACILITY EFFICACY
Part of the plan studies the adequacy of select DCPS and charter school facilities in supporting educational programming. This sample of schools offers a way to identify patterns of need that could guide future investments in modernization. For a more detailed discussion of the data and methodology of the facility efficacy study, see Chapter 5.

Facility efficacy was analyzed together with the facility condition and quality studies to provide an overall view of the characteristics of current public education facilities in the District, based on the data available.

In addition to questions about the relative state of repair and quality of facilities, the average distance student travel to school and the distribution of modernization funding were analyzed across the District on a neighborhood cluster basis. This study was undertaken to determine the relationship of facility quality and condition to enrollment patterns and to understand funding patterns to date.
CLUSTER ENROLLMENT PARTICIPATION
Facility condition and quality affect the safety and comfort of students and educators, and can limit programming. They may also influence parent and student perceptions about school quality. In this context, an analysis of the number of students who enroll in schools in the neighborhood cluster where they live was undertaken by comparing the number of students enrolled in the cluster to the number of students who live in the cluster and are enrolled in public education.

EQUITY
The working group stressed the importance of understanding how modernization has been funded to date and ensuring that funding is equitable moving forward. To that end, both the dollars spent on DCPS facility improvements (modernization, stabilization, new construction) from the start of the modernization program in 1998 to 2012 was mapped by neighborhood cluster.

Unfortunately, no data was available on charter facility improvement expenditures. The facility allowance provided by the District to charters was an unreliable data point over the time period 1998 to 2012, since the allowance is tied to enrollment and enrollment fluctuates over time. In addition, facility allowances may be used in many different ways by charters.

FACILITY GRADE BANDING
For the purposes of this Facilities Master Plan both DCPS and charters will be described with the following types:

» Elementary School (ES) - Grades Pre-School (PS), Pre-K (PK) to Fifth Grade
» Middle School (MS) - Sixth to Eighth Grade
» High School (HS) - Ninth to Twelfth Grade
» Education Campus 1 (EC1) - PS to Eighth Grade
» Education Campus 2 (EC2) - PS to Twelfth Grade