AGENDA
Facility Capacity Needs Analysis Subcommittee Meeting
of the Long-Range Educational Facilities Plan Work Group
City Hall, Chet & Sabra Avery Conference Room 2000
Monday, February 10, 2014, 6:00pm

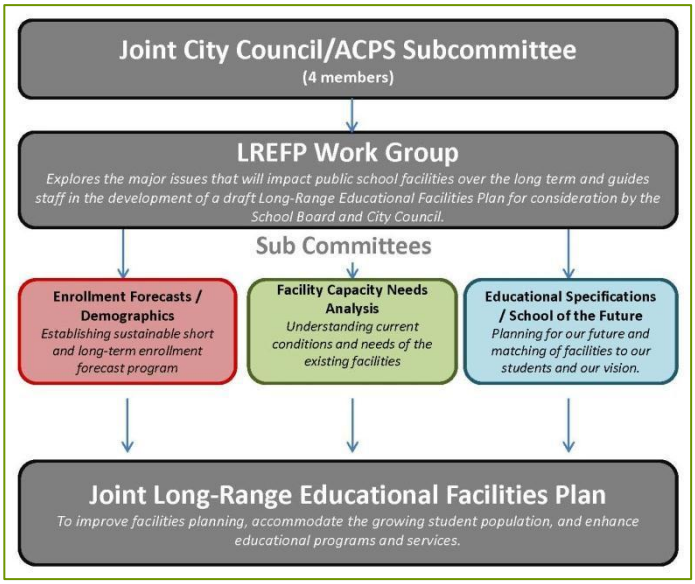
1. Welcome and Introductions — *Staff and Committee Members*

2. Review Work Program — *Staff*

3. Progress by Hughes Group Architects — *Staff*
   a) Package #1: Samuel Tucker, James K. Polk, Lyles-Crouch, Charles Barrett
   b) Site visits completed: T.C. Minnie Howard, Cora Kelly, Matthew Maury, George Mason, John Adams
   c) Sites remaining: George Washington, Douglas MacArthur, William Ramsay, Mt. Vernon, Francis C. Hammond, T.C. Williams King Street

4. Capacity Discussion — *Staff and Committee Members*
   a) Physical
   b) Programmatic
   c) Core
   d) Level of Service

5. Group Discussion/Next Steps



Why is this important?

Important both for the design of the facility and to enrollment the right number of students in each building.

Variables

- Building size
- Number/types of teaching stations
- Support facilities
- Staffing
- Specialty program offerings
- Class sizes
- Schedules

Physical (Design, Building) Capacity

This term refers to how many students a school building can accommodate with a traditional instructional program. Building capacity is calculated by multiplying the number of full-size classrooms in the building by the number of students a classroom is designed to accommodate. General parameters typically defined at state or county level. Can be further developed based upon local educational specifications.

Pros: Numbers do not change unless class size policies are altered or a capacity project is completed.

Cons: Does not consider any programming limitations so capacity appears greater than actual utilization. Assumes 100% utilization throughout the day.

Program Capacity

Program capacity defines the capacity of a school based upon the specific educational programs that are provided at a particular school site. Several models for calculating
#1- uses teaching stations and actual student/teacher ratio
#2- uses teaching stations and class-size caps
#3- uses teaching stations and design capacity
#4- uses teaching stations and actual square feet

Pros: Capacity is consistent with utilization

Cons: Programs are constantly changing so capacity is a moving target

Core Facilities

Core spaces typically include cafeteria, serving area, kitchen, gymnasium, multipurpose room, library/media center. Calculated based on a square foot allowance per student.

Utilization Factor

Education specification specialists recommend the use of a utilization factor in determining school capacity. The utilization factor is a percentage applied to the optimum capacity to account for the uneven distribution of students across grade levels and cohort groups. The recommended rate for elementary schools is 90-100%. The recommended rate for middle school is 70-85% and high school is 80-85%.

Level of Service

Goal for acceptable level of service provided by a facility based on the operational characteristics of the facility.

Other

- Square footage per student
- Gross square feet of permanent facilities
- Calculate square feet per student and compare to a recommended standard

Hybrid/Combination

Uses a combination of factors including core capacity and building or program capacity. Provides a more realistic capacity calculation than others. Can use a variety of methods to reflect existing conditions.

**Capacity numbers are not fixed.

Capacity Example:

Instructional Classrooms-

4 Pre-Kindergarten
6 Kindergarten
4 1st Grade
3 2nd Grade
7 3rd Grade
1 full size special education

Core Spaces-

1 media center 2,000 SF
1 gymnasium 4,000SF
1 cafeteria 5,000 SF (357-625 students)
1 art
1 music

Design Capacity Teaching Stations x Class-Size Caps

Classrooms	Type	ACPS Class size Cap	Design Capacity
10	Early Childhood	22	220
7	1st & 2nd	24	168
7	3rd	26	182
1	Special Ed.	10	10
1	Art	26	26
1	Music	26	26
1	PE		
Total Stations			**632**

Program #1 Teaching Stations and Student/Teacher Ratio
24 General Teaching Stations x Student/Teacher Ratio 23 = 552 +
1 Special Education Station x10 students = 562
562 * .95 utilization = 534S students

Program #2 Teaching Stations and Class-Size Caps

Classrooms	Type	ACPS Class size Cap	Total Program Capacity
10	Early Childhood	22	220
7	1st & 2nd	24	168
7	3rd	26	182
1	Special Ed.	10	10
1	Art	26	
1	Music	26	
1	PE		
Total Stations			**580**

*specialty classrooms (music and art) are not available to permanently house additional full-time Students

580 * .95 utilization = 541 students

Program #3 Basic Program Analysis

24 General Teaching Stations x Capacity 26 students = 624 +
1 Special Education self-contained room x 10 students= 634 students
634 * .95 utilization = 602 students

*assumes all rooms can accommodate 26 students

Program #4 Program Square Footage

* considers actual square footage of classrooms

	Actual Sq Ft	Std. SF/ Student	Std. Capacity
10 rooms	850	35 SF	24
14 rooms	900	35 SF	25
1 room	600	75 SF	8
Total			

Out of the 24 General Teaching Stations 10 were 850 SF = 240 student, 14 T.S. were 900 SF = 350 and 600 SF Special Ed classroom can accommodate 8 students totaling 598 capacity
598 * .95 utilization = 568 students