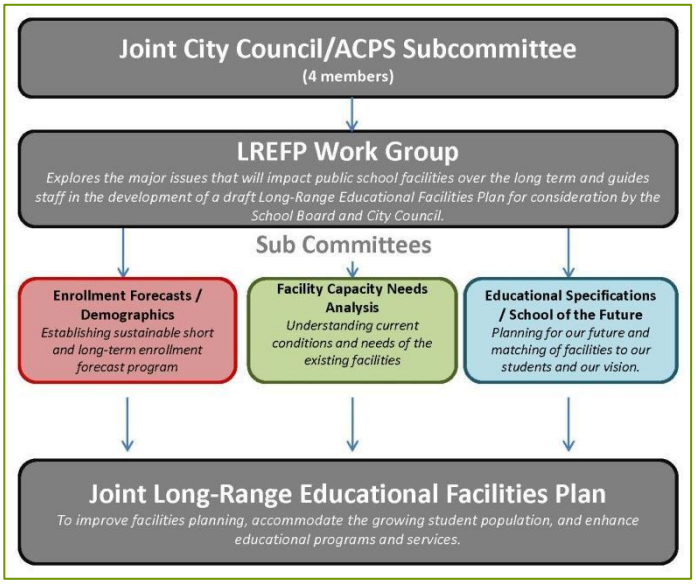
AGENDA
Facility Capacity Needs Analysis Subcommittee Meeting
of the Long-Range Educational Facilities Plan Work Group
City Hall, Chet & Sabra Avery Conference Room 2000
Friday, May 23, 2014, 8:00am

1. Welcome and Introductions *Staff and Committee Members*
2. Review Work Program *Staff*
3. Progress by Hughes Group Architects *Staff*
   a) Building Interiors- Site visits completed: Charles Barrett, Cora Kelly, Douglas MacArthur, George Mason, George Washington, Francis Hammond, James Polk, John Adams, Lyles Crouch, Matthew Maury, T.C. Minnie Howard, Mt. Vernon, William Ramsay, Samuel Tucker, T.C. Williams King Street
   b) Review Scope of Work for Exterior Site Inventory
4. Review Capacity Methodology *Staff and Committee Members*
5. Group Discussion/Next Steps



Why is this important?

Important both for the design of the facility and appropriate enrollment suited to each building.

Variables

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

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.

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:

24 Full Size Classrooms-

22 Home Rooms
1 Art
1 TAG
**music in resource room

Core Spaces-

1 media center 2,718 SF
1 gymnasium 4,742 SF
1 cafeteria 4,511 SF

Program Capacity Calculations

Program #1 Teaching Stations and Student/Teacher Ratio
24 General Teaching Stations x Student/Teacher Ratio 24 = 576
576 * .95 utilization = 548 students

Program #2 Teaching Stations and Class-Size Caps
*specialty classrooms (music and art) are not available to permanently house additional full-time students

Classroom	Type	ACPS Class Size Cap	Capacity
5	K	22	110
8	1st & 2nd	24	192
9	3rd-5th	26	234
1	Art	26	
1	TAG	26	
24			**536**
95% Utilization			510

Program #3 Basic Program Analysis
24 General Teaching Stations x Capacity 26 students = 624
624 * .95 utilization = 593 students

*assumes all rooms can accommodate 26 students

Program #4 Program Square Footage
* considers actual square footage of classrooms
* general education goal is 35 SF/student

	Actual SF	Students per Classroom	Total Students
1 room	~600	8	8
11 rooms	~650	19	209
4 rooms	~700	21	84
8 rooms	~850	26	208
24 rooms			**509**
95% Utilization			**484**
24 rooms	748 SF Avg.		513

Total Full-Size Classroom SF 17,954

Core Space Capacity Calculations

Media Center

Existing- 2,718 SF
Standard- 4-6 SF per student
Result- 453-680 students

Gymnasium

Existing- 4,742 SF
Standard- 100 SF per student
2 teachers at one time
Result- Average class size of 23.7
552 students

Dining and Food Services

Existing- SF Dining and food services 4,511
Dining area ~2,511 SF
Standard- 15 SF per student
3 lunch periods
Result- 167 students per lunch
501 students with 3 lunch periods