Managing a Portfolio of Facilities for Educational Sufficiency & Fiscal Sustainability

In preparation for the Workgroup on Assessment & Funding of School Facilities

Webinar 1 of 4 July 31, 2019

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School Facility’s Purpose

To support teaching and learning.

Facility Condition

Educational Sufficiency

Both are essential for teaching and learning
Maryland’s Portfolio of School Facilities

- **Facilities** - Nearly 1,400 active public K-12 school facilities
- **Total Area** - 140 million gross square feet
- **Enrollment** - Serving more than 893,000 students
- **Total Asset Value** - $55.3 Billion
Current Condition of Maryland’s Portfolio

The relative age difference between LEAs has remained status quo, but overall the remaining expected life of facilities has almost uniformly declined within each LEA.
**MD Total School Enrollment (1970 to 2017)**

- 1970: 916,244
- 1980: 880,927
- 1990: 860,020
- 2000: 879,601
- 2010: 671,560

**Total Enrolled Population**

Source: NCES State Comparison of Education Statistics Report, Total Enrolled

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**Total Gross Square Footage of MD K-12 Schools in Service (1970 to 2019)**

- 1970: 650,000
- 1980: 700,000
- 1990: 750,000
- 2000: 805,544
- 2010: 860,020

**Gross Square Footage (in Millions)**

Source: IAC Trend Estimates
A Multigenerational Task

Year 0 10 20 30 40 50

Continual Management and Upkeep…

Objectives: Educational Sufficiency + Fiscal Sustainability
Ownership and Cycle of Life
Educationally Effective + Fiscally Sustainable

School Facilities Portfolio

**Educationally Effective**
- Design (including configuration and equipment)
- Size
- Level of maintenance

**Fiscally Sustainable**
- Total cost of ownership, including:
  - Construction
  - Operation
  - Maintenance
  - Capital Renewal and Replacement
- Resources (funding) available now and in the future

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Portfolio-Management Approach
The Power of Early Decisions

30-Year Cost

$395 per square foot = Construction cost (including soft costs)
$395.00

$329 per square foot x 2% per year = Operations & Routine Maintenance Costs
$197.40

$329 per square foot x 2% per year = Capital Maintenance (System-Replacement) Costs
$197.40

(70,000 x $395) + (70,000 x $329 x .02 x 30) + (70,000 x $329 x .02 x 30) = $55,286,000 Total Cost
$27,650,000 up front + $921,200 per year

(90,000 x $395) + (90,000 x $329 x .02 x 30) + (90,000 x $329 x .02 x 30) = $71,082,000 Total Cost
$35,550,000 up front + $1,184,400 per year
The Power of the punchline

30-Year Cost

$395 per square foot = Construction cost (including soft costs)
$395.00

$329 per square foot x 2% per year = Operations & Routine Maintenance Costs
$197.40

$329 per square foot x 2% per year = Capital Maintenance (System-Replacement) Costs
$197.40

20,000 extra square feet = $526,533 more per year over 30 years

- $27,650,000 (70,000 sq ft)
- $27,636,000 (70,000 sq ft)
- $35,550,000 (90,000 sq ft)
- $35,532,000 (90,000 sq ft)
Operations and Maintenance

*Industry Standards For Investment*

**Capital Maintenance**
- 2% of Construction Cost (with soft costs) per year
  
  \[ 0.02 \times \$395/\text{GSF} \times 140\text{M GSF} = \$1.106 \text{ Billion per year} \]

**Operations and Routine Maintenance**
- 2% of Construction Cost (with soft costs) per year

  \[ 0.02 \times \$395/\text{GSF} \times 140\text{M GSF} = \$1.106 \text{ Billion per year} \]

\[ \$1.106 \text{ Billion} + \$1.106 \text{ Billion} = \$2.212 \text{ Billion per year} \]
Total Cost of Facility
Average Percentage Over 30 Years

- Planning 0.5%
- Design 3.0%
- Operations and Maintenance 51.0%
- Construction 45.5%
Data Required for Portfolio Management

Facility Outcomes and Results
- Educational Sufficiency
- Condition

Facility Inputs
- Expenditures of Resources

Return on Investments
- Operating (M&O)
- Capital

\[
\frac{\text{Facility Outcomes and Results}}{\text{Facility Inputs}} = \text{Return on Investments}
\]
## Data Required for Each Facility

<table>
<thead>
<tr>
<th>Data Required</th>
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</thead>
<tbody>
<tr>
<td><strong>Age, size/area, and capacity</strong></td>
</tr>
<tr>
<td><strong>Educational Sufficiency</strong> of the spaces within the facility</td>
</tr>
<tr>
<td><strong>Condition</strong> of the facility and its major systems</td>
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<tr>
<td>What repair and maintenance work has been done</td>
</tr>
<tr>
<td>The <em>effectiveness</em> of that repair and maintenance work</td>
</tr>
<tr>
<td>Money spent on acquisition, operation, and maintenance</td>
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</tbody>
</table>
Comparable Data by Activity Category

**Why is comparable data important?**

- Permits the evaluation of portfolio-management activities over time by accounting for spending in alignment with the activities.
- Allows for comparative analysis across facilities and across years.
- Supports continuous improvement of processes.
- Supports transparency and accountability.
The Six Defined Categories Of Facilities-Related Spending

1. Planning: Determining What is Needed
2. Acquisition: Obtaining the School Facility
3. Alteration: Permanent Facility Modification
4. Non-permanent Addition: Adding Temporary Capacity
5. Maintenance: Tending the School Facility

Source: National Council on School Facilities
So…

**Why Right-Size Each Facility* And Every Portfolio?**

1. **Educational Sufficiency**
2. **Fiscal Sustainability**
3. **Taxpayers Demand It**
Essential Tools
for sustainable school facilities

A Portfolio-Management Approach

Regular assessment of facilities and of M&O activities

Analysis of the right data

A focus on Total Cost of Ownership
... A healthy, safe, and educationally sufficient learning environment for every child in every seat in Maryland.

Questions?

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Up next...

Total Cost of Ownership

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Webinar 2 of 4
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