Agenda

Background
2014 Feasibility Study
2019 Feasibility Study Cost Update
Strategies for Cost Reduction
Background
PGCPS High School Educational Specifications

- 2450 students (incl. 50 Regional Spec. Ed)
- Smaller Learning Campuses / Career Academies
  - Academy of Engineering & Science
  - Academy of Environmental Studies
  - Academy of Homeland Security + Military Science
  - Academy of Hospitality + Tourism (Pro Start only)
- Safety + Security
- Flexibility / Transparency
- Community Connections
- Contemporary Learning Spaces
- Outdoor Learning
- Sustainable Design
“Consider all options as appropriate to fairly assess the potential of the existing facility. These may include major to minor renovations, major to minor additions, major to minor demolition and new school construction.”
Additional Scope

40 Year Life Cycle Cost Analyses

Community and Stakeholder Engagement

Consider Sustainability Strategies
Stakeholder Engagement
Site/Building Assessment
Ed Spec Analysis
Develop Design Concepts
Refine Preferred Option
Implementation Strategies
Facility Assessment Findings

- Site
- Floor Plan Analysis
- Exterior
- Structural
- MEP Systems
- Life Safety
# Key Findings

<table>
<thead>
<tr>
<th>Site</th>
<th>Floor Plan Analysis</th>
<th>Exterior</th>
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<tbody>
<tr>
<td>Combined pedestrian + vehicular paths</td>
<td>Double loaded corridors may not serve academy program</td>
<td>Uninsulated (single-pane) windows</td>
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<tr>
<td>Inefficient (sprawling) footprint</td>
<td>Accessibility is compromised in certain areas</td>
<td>Front façade lacks character (blank walls for 2/3 of façade)</td>
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</table>

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<tr>
<th>Structural</th>
<th>MEP Systems</th>
<th>Life Safety</th>
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<tbody>
<tr>
<td>Fair condition (no sign of structural fatigue)</td>
<td>Mechanical and plumbing systems need replacement</td>
<td>No building-wide fire suppression system</td>
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<tr>
<td>Minor cracking and spalling in limited areas</td>
<td>Aging components may no longer be serviceable</td>
<td>Fire alarm system is obsolete</td>
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Options

(A) Max Renovation
Area: 402,871 SF
Cost: $115,270,000

(B) New Construction
Area: 411,705 SF
Cost: $116,935,122

(C) Partial Reuse
Area: 394,013 SF
Cost: $113,035,602
Opportunities and Challenges

- Meets Ed Spec except Ball Field
- Long Construction – 3.5 to 4 years
  - Preserves 52% of existing building
  - Adaptive Re-use very sustainable
  - Preserves superior interior materials
  - Preserves Existing Auditorium
- New Gym/Cafeteria/Media Center
  - New Arts Wing
  - New Building Exterior
  - Accessible Throughout
  - Regional Special Ed included

- Meets Ed Spec
- Short Construction – 2 years
- New Auditorium
- Separates Bus/Pedestrian Drop-Off
  - Parking Consolidated
  - Entry Frontal to Powder Mill Road
  - Academic Wings Separate from Entry
  - Auditorium at “Heart” of School
  - Regional Special Ed included

- Meets Ed Spec
- Short Construction – 2.5 years
- Preserves Auditorium
- Separates Bus/Pedestrian Drop-Off
- Parking in middle of site
- Entry Frontal to Powder Mill Road
- Strong Site Lines to Rear of Site
- Academic Wings Separate from Entry
- Student Dining at “Heart” of School
- Optimal Solar Orientation for Classrooms
  - Regional Special Ed at grade and close to bus drop off
  - Athletic fields along Powder Mill Road

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Recommendation: Option C

(A) Max Renovation
- Area: 402,871 sf
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(C) Partial Reuse
- Area: 394,013 SF
- Cost: $113,035,602
2019 Feasibility Study Cost Update
Cost Update Methodology

Review Current Building Conditions

Assumptions

- Educational Specifications remain unchanged

- The concepts are the same
2014 Update

2014 Cost Update

(A) Max Renovation
Area
2014 Cost
402,871 SF
$115,270,000

2019 Cost
$218,398,008

(B) New Construction
Area
2014 Cost
411,705 SF
$116,935,122

2019 Cost
$215,483,335

(C) Partial Reuse
Area
2014 Cost
394,013 SF
$113,035,602

2019 Cost
$211,956,864
Why So Much?

Additional Scope
(Not identified in 2014 Cost Estimate)

$1-4 Million Hazardous materials abatement

$1.3 Million Temporary trailers

$2 Million Special foundations

Increased Costs and Contingencies

%15-30 Increased construction costs by trade

%10 Updated design contingency (previously 5%)

%7 Updated construction contingency (previously no contingency)

%16 Updated escalation (to midpoint of construction @4.75 years)

%5 Updated phasing premium for Option A (previously 3%)
Strategies for Cost Reduction
Factors and Strategies

**Time**

*Build sooner + faster*

- Expedite start date
- Eliminate/reduce phasing (Option A)

**Scope**

*Less building, less expensive systems*

- Consider alternate mechanical systems
- Reduce square footage

**Innovative Practices**

*Non-traditional methods to reduce time and/or scope*

- Prefabricated systems
- Increased utilization rates
- Alternate delivery methods
A Fourth Option

Strategies for Cost Reduction

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Area 2014 Cost
402,871 SF $115,270,000

2019 Cost $218,398,008

(B) New Construction
Area 2014 Cost
411,705 SF $116,935,122

2019 Cost $215,483,335

(C) Partial Reuse
Area 2014 Cost
402,871 SF $115,270,000

2019 Cost $211,956,864

(D) Max Unoccupied Renovation
2019 Cost $203,384,642

- Eliminates Construction phasing
- Reduces Time
- Requires Swing Space
Final Considerations

- The Educational Specifications may need to be updated (capacity, program)
- Additional concepts could be explored (more than four stories)
- Confirm strategic alignment with other district initiatives.