The World Congress on Educational Environment

EDUCATORS & OPERATIONS:
A Prioritized Approach to Support 21st Century Needs with Limited Resources

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Safety First!
Agenda

• What Is The Built Environment Life Cycle
• When & How Do Educators + Operations Connect
• 21st Century School Profile
• Conflicts & Constraints
• A New Approach
• A “Lean” Experience
• Prioritization Tools & Techniques
• Reflection
Agenda

- What Is The Built Environment Life Cycle
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- Reflection
What is the Built Environment Life Cycle

- Identify Need
- Research & Conceive
- Plan & Design
- Construct
- Operate & Maintain
- Re-purpose, Decommission
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When & How do Educators & Operations Connect

“Old School House Profile”

- Built Environment Life Cycle
  - Routine / Emergency Maintenance Need
  - Major Capital Improvement Project

- Decision Makers
  - Superintendent
  - Director of Facilities
  - School Board
  - Director of Finance
When & How do Educators & Operations Connect

“Old School House Profile”

• Drivers & Points of View
  • Deferred Maintenance
  • “Replacement in Kind”
  • Single System Perspective
  • Not “Customer” Focused
When & How do Educators & Operations Connect

“Old School House Profile”

• Educators & Operations Relationship
  • Parallel to Room Temperature Control
  • Disconnected – As Needed Basis
  • Conditional

• Others?
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21st Century School Profile

Design Approach / Philosophy

EXEMPLARY – Facility is a visionary, motivational, sustainable, healthy, high-performance teaching tool

PROFICIENCY – Facility is functionally flexible, functionally proximate, structurally adaptable, instructionally supportive

ADEQUACY – Facility is safe and secure, accessible, meets codes and regulations, minimum thermal, acoustic, and lighting requirements
21\textsuperscript{ST} Century School Profile

- View Classroom Video
21\textsuperscript{st} Century School Profile

What Does The New 21\textsuperscript{st} Century School Look Like?

- Collaborative Environ.
- Project-Based Learning
- Cross Curriculum
- Technology Rich
- Flexible Spaces
21st Century School Profile

What Value Do YOU Desire?
21st Century School Profile

“Old Profile”
• Built Environment Life Cycle
  • Routine / Emergency Maintenance Need
  • Major Capital Improvement Project

“New Profile”
Visioning Sessions
Investigate & Invest
Planning Workshops
Sustainable Design
Learner-Centered
Holistic Approach
Integrated Solutions
21st Century School Profile

“New Profile”

- Decision Makers Expand to Stakeholders
  - Superintendent
  - Director of Finance
  - Director of Facilities
  - School Board
  - Director of Technology
  - Director of Nutrition
  - Director, Arts & Sciences
  - Director of Athletics
  - Director of Security
  - Director of Transportation
  - Principal / Dean
  - Facilities Team
  - Community Partners
  - Special Education
  - Teachers
  - Students
  - Parents
21st Century School Profile

“New Profile”

• Drivers & Points of View
  • Deferred Maintenance (DM)
  • Preventive Maintenance (PM)
  • Educational Adequacy
  • Sustainable Design
  • Energy Conservation Minded
  • Holistic Systems Perspective
  • “Customer” Focused
21st Century School Profile

“New Profile”

- Relationship Between Educators & Operations

Collaborative

Connected

Co-Created
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Conflicts & Constraints

“STAKEHOLDER” Issues
Conflicts & Constraints

• Increasing Deferred / Unplanned Maintenance
• Increasing Building User Expectations
• Others..
Conflicts & Constraints

Where Do We Go From Here?

I WANT

YOU WANT

WE WANT

THEY WANT
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A New Approach

Lean is a proven method to:

- Increase Value
- Reduce Waste
- Respect People

PDCA Cycle:

1. Plan
2. Do
3. Check
4. Adjust
A New Approach... Why A Lean Strategy

Takes Fragmented, Isolated Efforts...

...and Develops a Systems & Process-oriented Holistic Approach
A New Approach... Why A Lean Strategy

Seeing Value vs. Waste

Vs.
A New Approach...Why A Lean Strategy

CONSTRAINTS

DESIREDE OUTCOMES
A New Approach... Why A Lean Strategy

Eight Deadly Resource WASTES

Transportation  Waiting
Inventory  Overprocessing
Motion  Overproduction
Defects
Unused Employee Creativity, Skill, Talent
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A “Lean” Experience

- Play Video
A “Lean” Experience

Learn to See Problems Together!
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Prioritization Tools & Techniques

FRAMEWORK for Decision-Making

• Institutional “Vision”
• Stakeholder Identified “Values”

LENS to Establish Priorities

• Standards with Defined Parameters
• Educator + Operations Perspectives
• Integrated Prioritization Model
Prioritization Tools & Techniques

Step 1 – Identify Categories Based On Primary Drivers and / or Perspectives

Perspective

• Institutional / Strategic Initiatives

• Facility Operations & Maintenance

• Educators

Category

Purpose / Function

Bldg Condition / System

Educ. Adequacy (Infrastructure)
Prioritization Tools & Techniques

Step 2 – Identify Characteristics

Category

- Purpose / Function
- Bldg Condition / System
- Educ. Adequacy (Infrastructure)

Characteristic

Type of Facility
- Identification of facility type based on its primary core function (options: (1) basic or (2) expanded use model)

High Energy Consumer
- Buildings or Systems within that consume or require significant energy to support or perform the mission

Classroom Technology
- Rating based on % of classrooms or student learning areas that meet the fully integrated technology standard
Prioritization Tools & Techniques

Step 2 – Identify Characteristics
Prioritization Tools & Techniques

Step 3 – Rank Characteristics & Develop Criteria

Rank Characteristics

• Identify Maximum 10 – 12 Defining Characteristics
• Evaluate And Assign A Priority
• Apply A Numeric Value
Prioritization Tools & Techniques

Step 3 – Rank Characteristics & Develop Criteria

Develop Criteria per Characteristic

• High Energy Consumer
  • High Use / Demand & Waste Potential
  • Medium Use / Demand
  • Low Use / Demand

• Classroom Technology
  • Standalone Workstations
  • Laptop Carts
  • Fully Integrated

Buildings or systems within the consume or require significant energy to support or perform the mission.

Rating based on % of CR’s of student learning areas that meet the fully integrated technology standard.
Prioritization Tools & Techniques

- Insert Decision Matrix Tool
Prioritization Tools & Techniques

FRAMEWORK for Decision-Making

• Institutional “Vision”
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LENS to Establish Priorities

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RESULT: Data-Driven, Objective Decision Making
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Reflection

What Does Working This Way Yield?

- Increase Consensus
- And An Understanding Of Shared Values
- Reduce Conflicts And Constraints That Impede Prioritization Of Needs
- Directing Dollars To Prioritized Needs Increases Ability to Achieve 21st Century Goals
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Thank You!