

# The Link Between Building Systems and Performance

## Impact of Building Operation

- Indoor Air Quality
- Lighting Levels and Quality
- Temperature Control



## Performance

- Test Scores (Schools)
- Productivity
- Attendance/Absenteeism
- Activity/Involvement

# Integrated Design & Development Process

Capture the impacts of various design elements  
Integrated team working toward a common goal

- Owner
- Architect
- Engineer
- Operations Staff
- Occupants
- Construction Manager
- Major contractors - Building systems, MEP, Information systems, Landscape planner, etc.

**Design/Build with a Common Goal**

# Non-Traditional Approach to New Construction

## Traditional Construction

- Debt Financing
- Segregated Team
- Adversarial Relationships
- Weak Communications
- Limited Accountability
- Focus on First Cost

## Design Build

- Focus on outcomes
- Involvement of All Stakeholders
- Integration of Concerns
- Coordinated Team Effort
- Financing Alternatives
- Ownership Alternatives



# Niagara Falls Case Study

## A Healthy High Performance Outcome

- Unique design to enhance the learning environment and serve the community
  - Aesthetic, functional design incorporates:
    - Energy Efficiency
    - Latest lighting Technology
    - Security & Fire-alarm technology (i.e. - 62 cameras)
    - Flexible Spaces
    - Technology Core at the Center
    - 4 Academically Themed Sections
    - 4500 Data Connections
    - Olympic Swimming pool
    - 1700 Seat Theater
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