WHO WE ARE

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How did we get here?
Is there a better way?
Smart school case studies

Agenda
DID WE GET TITLE I dedicated services for low income
TITLE IX equitable programs by gender
PUBLIC LAW 94-142 free education for each child with disability
MANDATED LUNCH PROGRAMS
AMERICANS WITH DISABILITIES ACT

collaborative teaching / learning
inclusion programs
small group instruction
social learning
active learning
advanced technology
keepin’ up with the “Joneses”

new construction from 1994 – 2019*

change in avg sf/student

early schools middle schools high schools

18% increase 41% increase 63% increase

+23 sf/student +66 sf/student +125 sf/student

change in avg sf/student

new construction from 1994 – 2019*

*To date there are 746 individual survey entries. Each individual entry is representative of a completed construction project, with 219 being classified as new construction. Survey by 4M Educational Services.
CHANGE IN AVG SF/STUDENT
new construction from 1994 – 2019

positive effects
more program space
Inclusion and equity

negative effects
Higher first and life cycle costs
High travel time / lost educational time
Disengaged culture

ADDED COST
new construction

For every 1000 SF added

$250,000 additional first costs

$1500+ average additional costs every year

180 sf
1994

300 sf
2019

12' 15'
180 sf
1994

20' 15'
300 sf
2019

12'
¼ MILE WALK through building

DISENGAGED culture

IS THERE A BETTER WAY?
should we BUILD?

WHAT

should we BUILD?

WHY?????
SMARTER PLANNING

1. Assign space by kid not by adult
2. Make sure EVERY space has a function
   between 8-3, M-F
3. Find programs that are underserved
   individually but compatible
4. Avoid uniformity disguised as equity

MORE CHAIRS than students
the problem: crowded classrooms

Existing 30x30 classroom usage

WHAT?  DESIGN BIGGER CLASSROOMS
WHY?  THERE IS SO MUCH STUFF IN THE ROOM
WHY??
• Desks for the biggest class
• Teacher storage
• Area for small group work
WHY???

WHY should we BUILD?
WHAT should we BUILD?

Classroom 1 30' x 32'
Classroom 2 30' x 32'
Classroom 1 30' x 25'
Classroom 2 30' x 25'
Office 10' x 14'
Small classroom 20' x 20'

space utilization study

Second Floor

Third Floor
avoided 20,000 SF of additional space

new floorplan

Saved $5 million in first costs and $30,000 of O/M costs every year

RECONFIGURED EXISTING SQUARE FOOTAGE (SF) WITH BETTER GRADE ALIGNMENT

DECREASED SQUARE FOOTAGE BY 20,000 SF

smart schools

CASE STUDIES
GENESEO HIGH SCHOOL

THE CHALLENGE

- Aging 1950-70s high school with physical needs
- Too much space, but not the right spaces
- Programs housed in former storage, shop areas, etc...
- Small site footprint

Existing floorplan

WHAT should we BUILD?

» 60,000 sf fine arts and security addition
» Large venue for band and choral programs
» Outdoor athletic facility
» Leave former fine arts spaces without function
» Use all funds and require additional funding
Proposed Plan

60,000 sf addition

Geneseo High School, Geneseo, IL

» Repair and maintain existing building
» HVAC and lighting updates
» Repair outdoor athletic facilities
» Gym not suitable to host performances

WHY?

fix what’s broken

» Repair and maintain existing building
» HVAC and lighting updates
» Repair outdoor athletic facilities
» Gym not suitable to host performances

WHY??

we need more space

» Support highly ranked band, art, and chorus
» Provide collaborative opportunities
» Support new media
» Support athletic programs
» Enhance security measures
WHY???
innovation / smarter design
» Overserve no one
» Appropriately serve everyone
» Right-size for student body
» Multi-use spaces
» More program area with only small addition

the solution
• Repurposed existing spaces to reduce net additional sf of building to 15,000 sf
• Repurposed aging library into art and maker space
• Created modern media hub
• Provided concert hall to support performances

SMARTER PLANNING
2 Make sure EVERY space has a function between 8-3, M-F
1. Assign space by kid not by adult

3. Find programs that are underserved individually but compatible
WALTHAM
K-8 SCHOOL
the challenge
- Two separate schools serving a small (less than 250), rural student population
- Both campuses needed extensive HLS updates
- Lacked future-focused spaces
- Shared faculty had to travel between schools

WHAT should we BUILD?
- Full size classrooms for K-8 based on adults
- Kitchen
- Cafeteria
- Media center
- Gymnasium
- Art and music classrooms
- Science classrooms
- "Extra" classrooms

Proposed One Campus
38,000 SF | 169 SF/STUDENT
WHY?

fix what’s broken

» Dated learning environments
» Two separate school to maintain
» Failing buildings

Waltham School
North Utica, IL

WHY??

we need more space

» Reduce travel time for teachers
» Create future-focused and individualized instruction
» Prove that small, rural education can be high quality
» Provide a cafeteria / kitchen

Waltham School
North Utica, IL
WHY???...

innovation / smarter design

» Create a warm and welcoming culture
» Provide radically collaborative spaces to solve multiple problems
» Use ALL space by nearly eliminating non-instructional spaces (hallways, cafeteria, kitchen)

Waltham School
North Utica, IL

the solution

1. Assign space by kid not by adult
   - New, smaller single K-8 school
   - Nearly eliminate non-instructional space (hallways, cafeteria, kitchen)
   - Tighter footprint with increased future-focused program space
   - Highly collaborative and flexible learning studios

5000 sf smaller | 13% less space | 138 sf/student

2. Make sure EVERY space has a function between B-3, M-F

Forest
River
Meadow

11/15/2019
radically collaborative spaces

Working with limited resources, the team focused on providing radically collaborative environments, like the combined Art / STEM Innovation Station.

Avoid uniformity disguised as equity
Instead of investing in on-site food preparation and storage, the design allows for healthy, catered lunches to be stored and distributed to the various areas of the school building, allowing the educational team and students to approach nutrition on their own schedule.

**What's for lunch?**

Instead of investing in on-site food preparation and storage, the design allows a variety of healthy, catered lunches to be stored and distributed to the various areas of the school building, allowing the educational team and students to approach nutrition on their own schedule.

**Make sure EVERY space has a function between 8-3, M-F**

**K-5 commons**

**6-8 commons**

**K-1 classrooms**

I love the colors. I love the openness. It’s very kid-friendly, and it brings in future-focused learning, which is our goal.

— District Special Education Teacher

![](image1.png)

![](image2.png)

![](image3.png)
Find programs that are underserved individually but compatible.
Conclusion

How did we get here?
Is there a better way?
Smart school case studies

ISN'T ALWAYS

BIGGER

thank you!