

RETHINKING THE BIG BOX ADAPTIVE REUSE FOR SCHOOLS



Outline

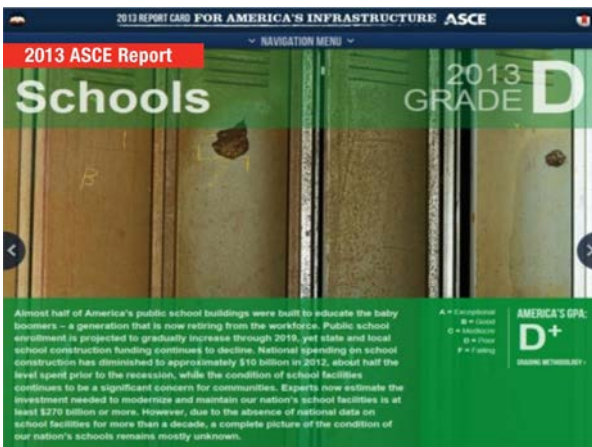


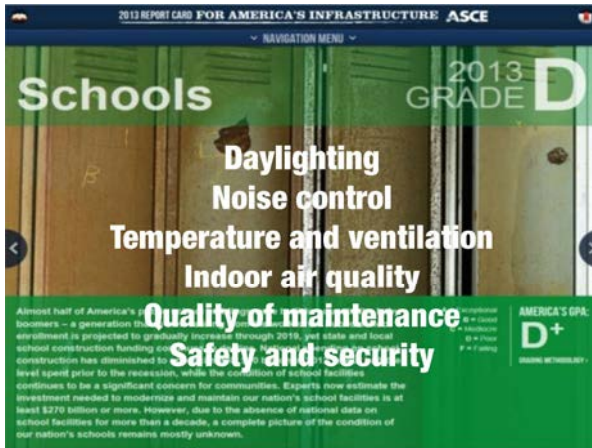
Julia Christensen











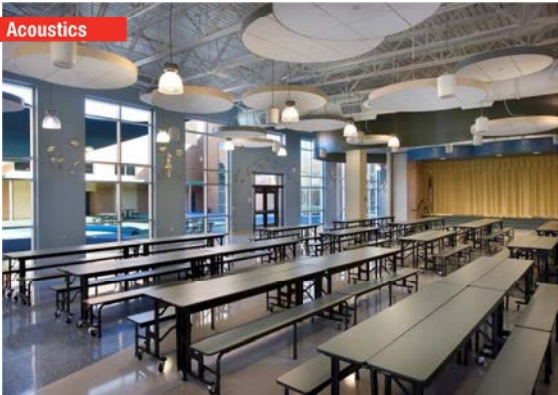


Students with the most daylighting in their classrooms progressed 20% faster on math tests and 26% faster on reading tests when compared to students in the least daylit classrooms.



The National Institute of Mental Health suggests many issues to check when diagnosing ADHD, including hearing.

Acoustics



Performance and Behavior



Impact of Environment

4,745
days from K through 12
3,500
of those days are spent in
school,
so
74%
of a child's days are spent in
school.

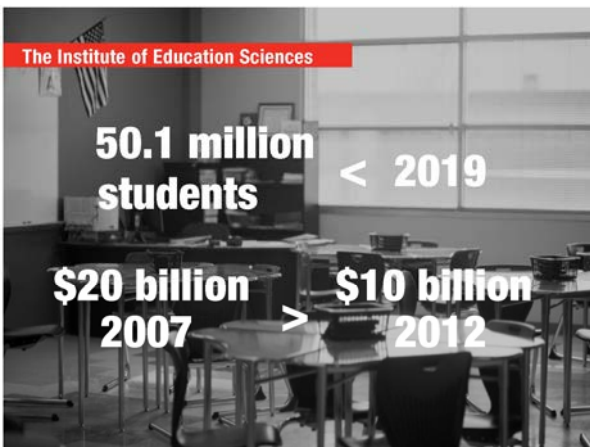


The Situation for School Districts



The Institute of Education Sciences

50.1 million **< 2019**
students
\$20 billion **>** **\$10 billion**
2007 **2012**



The Institute of Education Sciences

\$197,000,000,000

Memminger Elementary School



Kelly Mill Middle School



The Situation for Communities



International Council of Shopping Centers

An abundance of retail space was created during the past two decades and the amount exceeds the capacity of local markets to support it.



International Council of Shopping Centers

The recession

Pressure from discount retailers such as Walmart

The enormous increase in online retailing



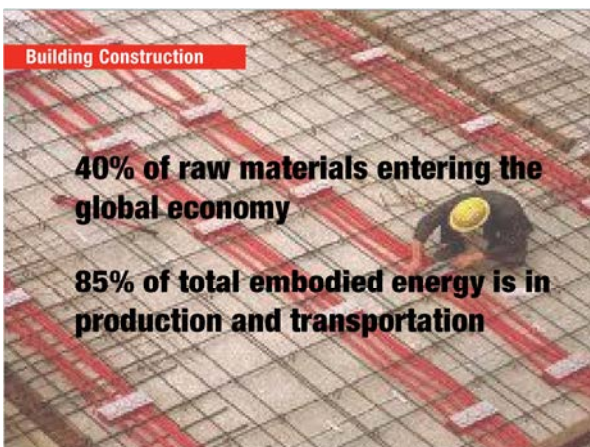






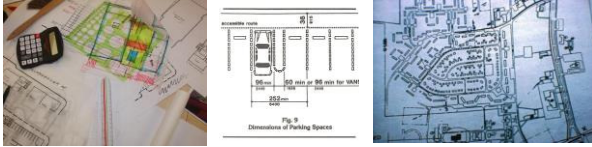






Site Analysis

Zoning
Safety
Access and connectivity
Parking upgrades
Landscape buffer requirements may have changed



Structural Analysis

Seismic bracing
Wind loading
Structural grid



Envelope Analysis

Roof
Deck condition
Insulation
Connections to supporting members
Capacity for new loads



Envelope Analysis

Walls (Construction/ Insulation)
Glazing (Insulated/ Shading Coefficient/ Impact Resist)
Concrete Slab Condition (VB/ MC/ Levelness/ Cracks)



Hazardous Materials

Asbestos?
Lead Paint?
Ballasts – Light fixtures?
PCB's in soils?
Radon?



Location and Infrastructure



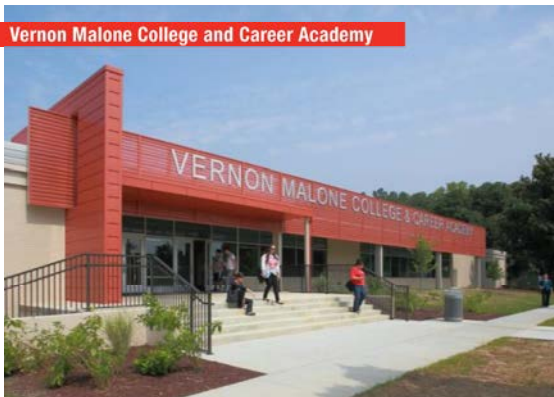
New Site Plan



Vacant Coca-Cola Bottling Plant



Vernon Malone College and Career Academy



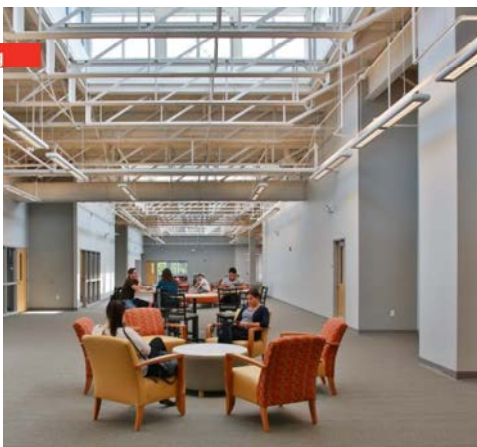
Program



Interior Space



Daylighting



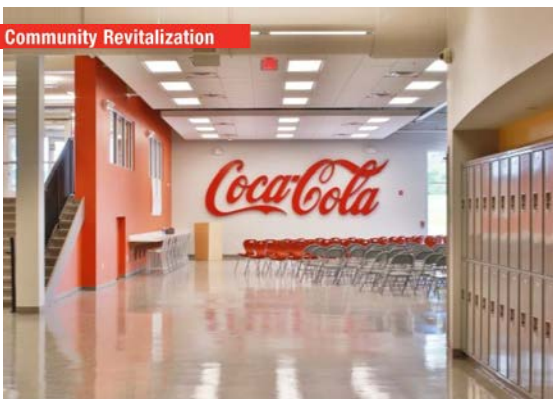
Daylighting

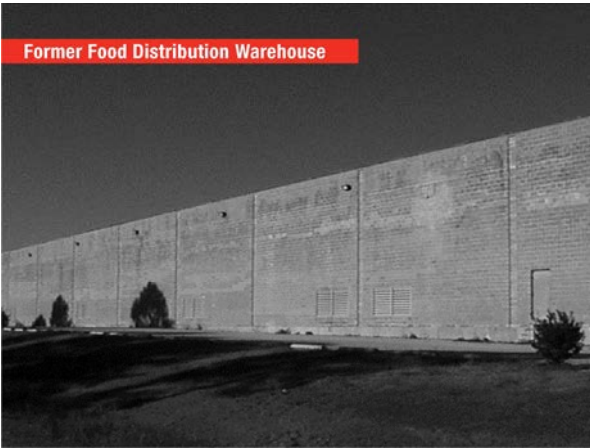


Cost and Schedule

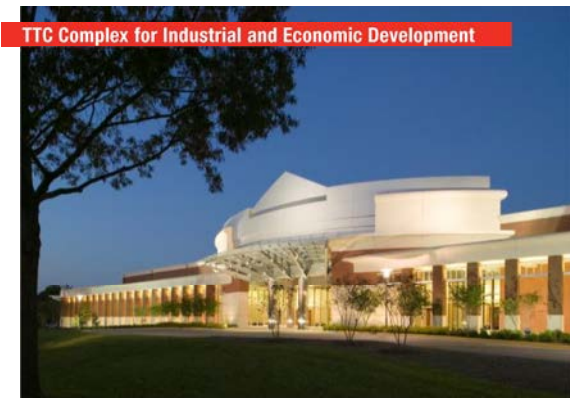


Community Revitalization

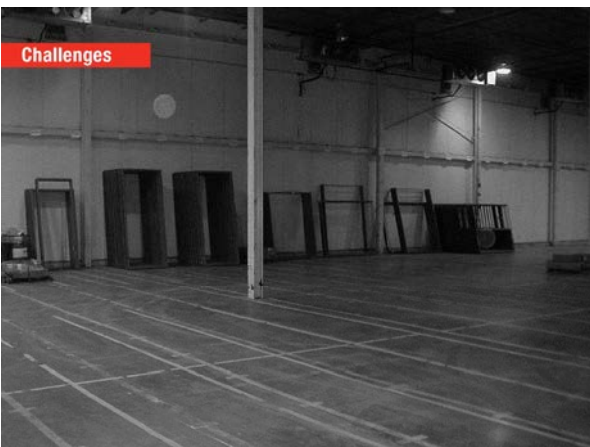




Former Food Distribution Warehouse



TTC Complex for Industrial and Economic Development



Challenges

Design Opportunities



Design Opportunities



Design Opportunities



Teaching and Catering Kitchens



Demonstration Kitchen

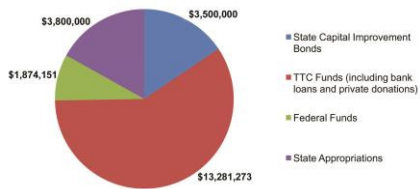


Construction Costs

Total Cost in 2005:
\$22,455,424
\$153.00/SF

Estimated Cost if
New Construction:
\$195.00/SF

Estimated Savings
From New
Construction:
\$42.00/SF
\$42.00 x 147,000
SF = \$6,174,000



*Costs do not include professional service fees

Former Western Auto



Central Carolina Technical College Health Sciences



Lobby and Pre-function space



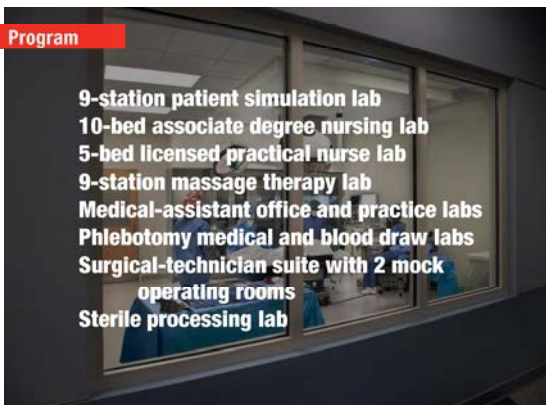
Tiered Auditorium



Classroom / Lobby



Program



Clinical Labs

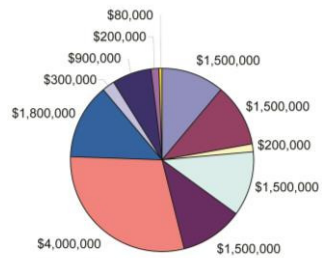


Simulation Lab



Funding

- EDA Funding
- Federal Earmarks
- EPA Brownfields Grant
- Build America Revenue Bond
- Recovery Zone Bond-AARA
- SC Government
- Allied Health Initiative
- Sumter-Downtown
- Duke Endowment*
- Interest Revenue
- CCTC



Additional Funding from Duke Endowment:
for additional faculty and medical technology specialist
\$847,000 for 3 years

Former Walmart



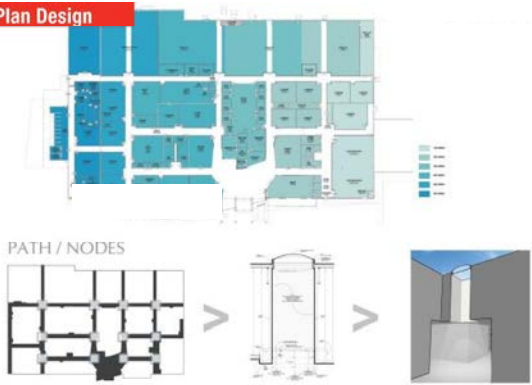
Piedmont Technical College Newberry Center



Site Design



Plan Design



Lobby



Lobby



Computer Lab



Entry



Innovative Design



Sustainable Construction



Community Revitalization



State-of-the-Art Education





Q&A
