



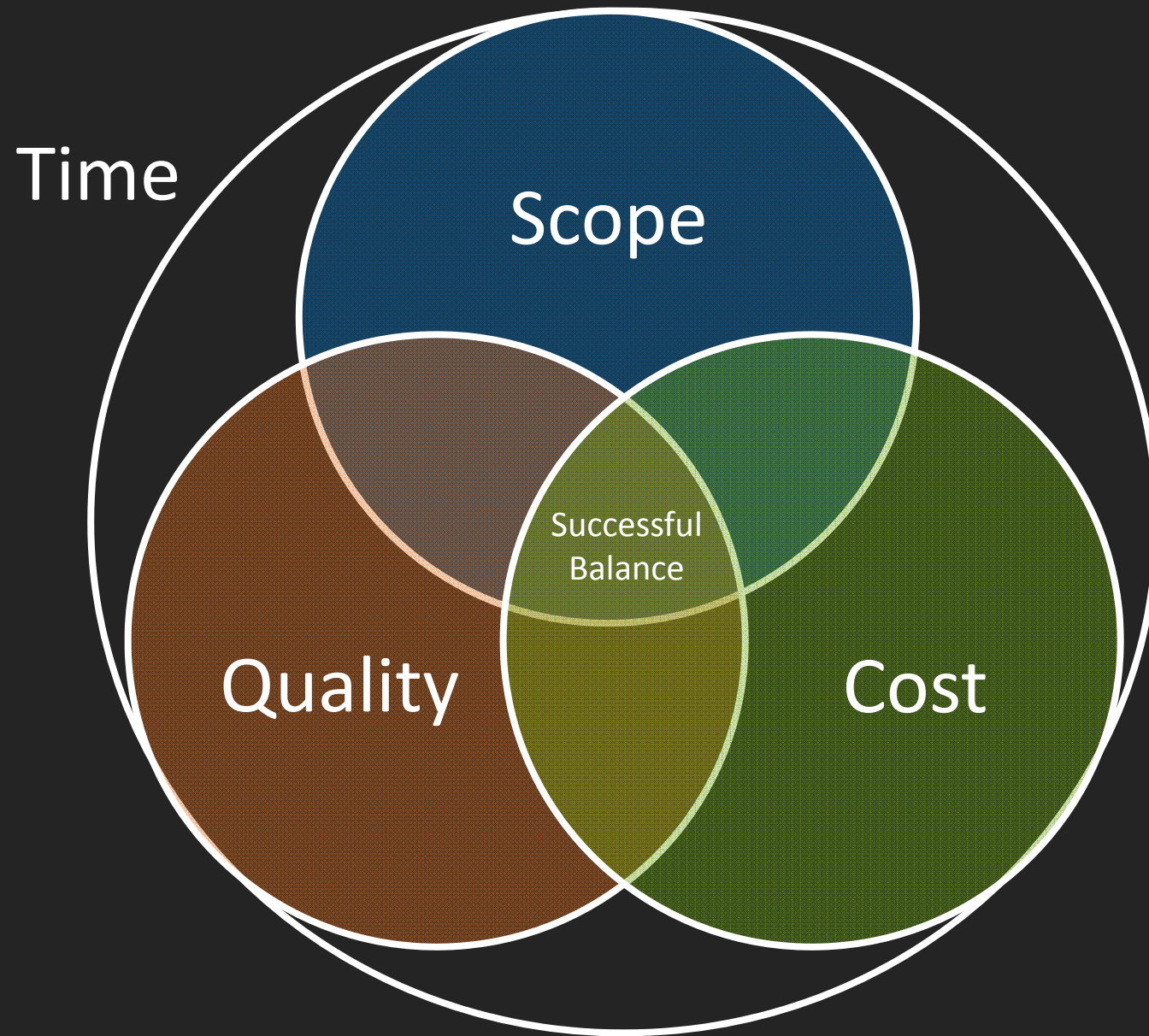
Crabtree, Rohrbaugh & Associates

DESIGNING A 21st CENTURY SCHOOL ON BUDGET

Innovation Meets Cost Effective Design

ELEMENTS OF A SUCCESSFUL PROJECT

ELEMENTS OF A SUCCESSFUL PROJECT



Defining the scope:

- Stakeholder engagement
- Planning for 21st century teaching and learning.
- Maximize utilization

Defining the quality:

- Provide value over time
- Sustainability
- Smart detailing and material selection
- Selecting building systems based on ROI

Determining the cost:

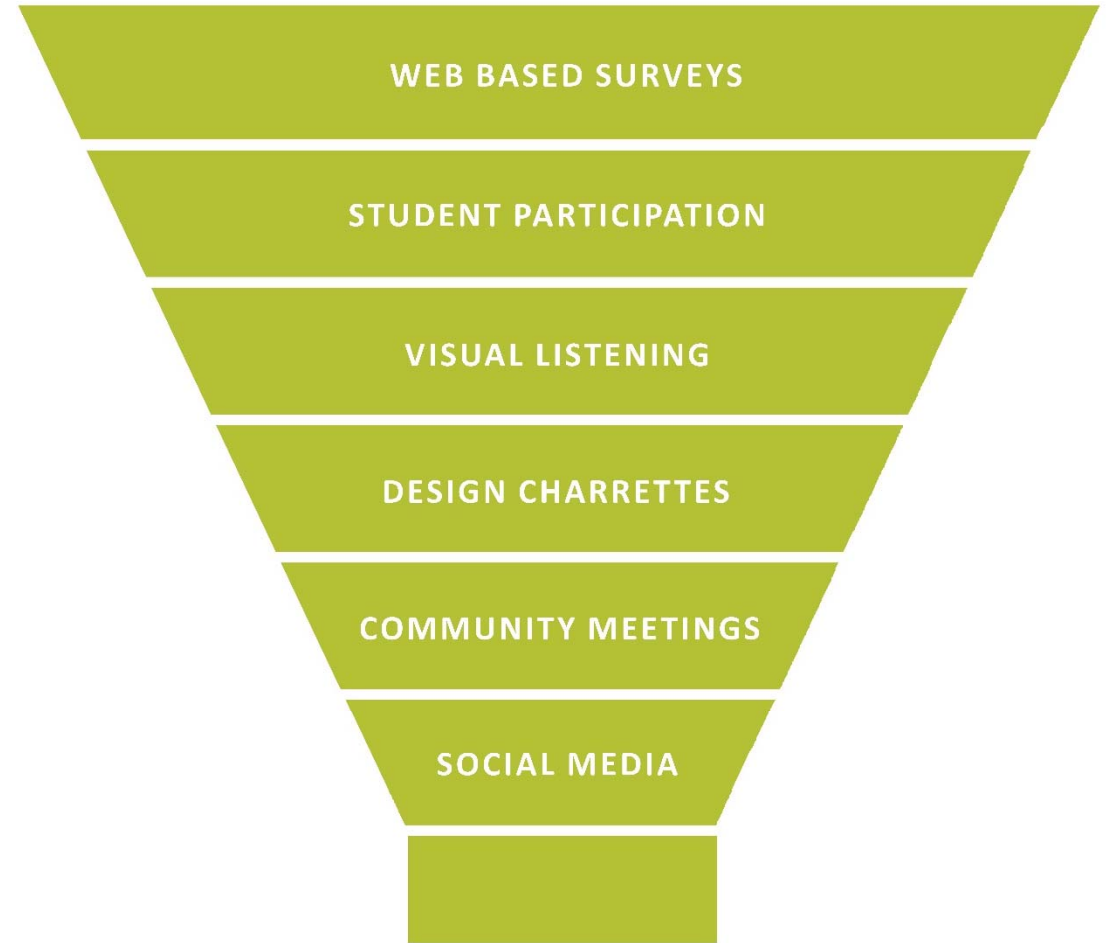
- Historic costs for similar projects
- Project management

STAKEHOLDER ENGAGEMENT



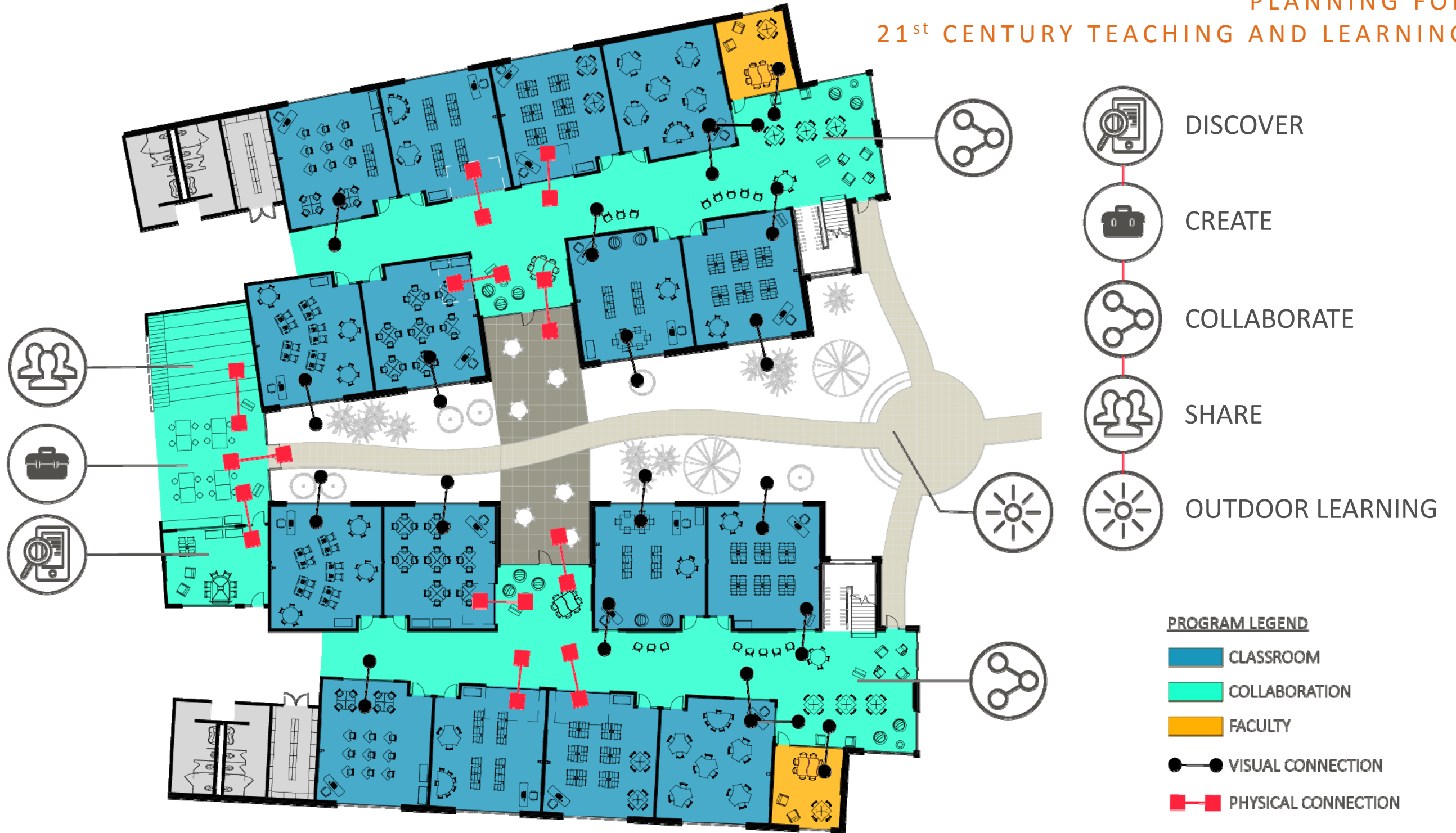


STAKEHOLDER ENGAGEMENT



DECISION MAKING TOOLS

PLANNING FOR 21st CENTURY TEACHING AND LEARNING













People

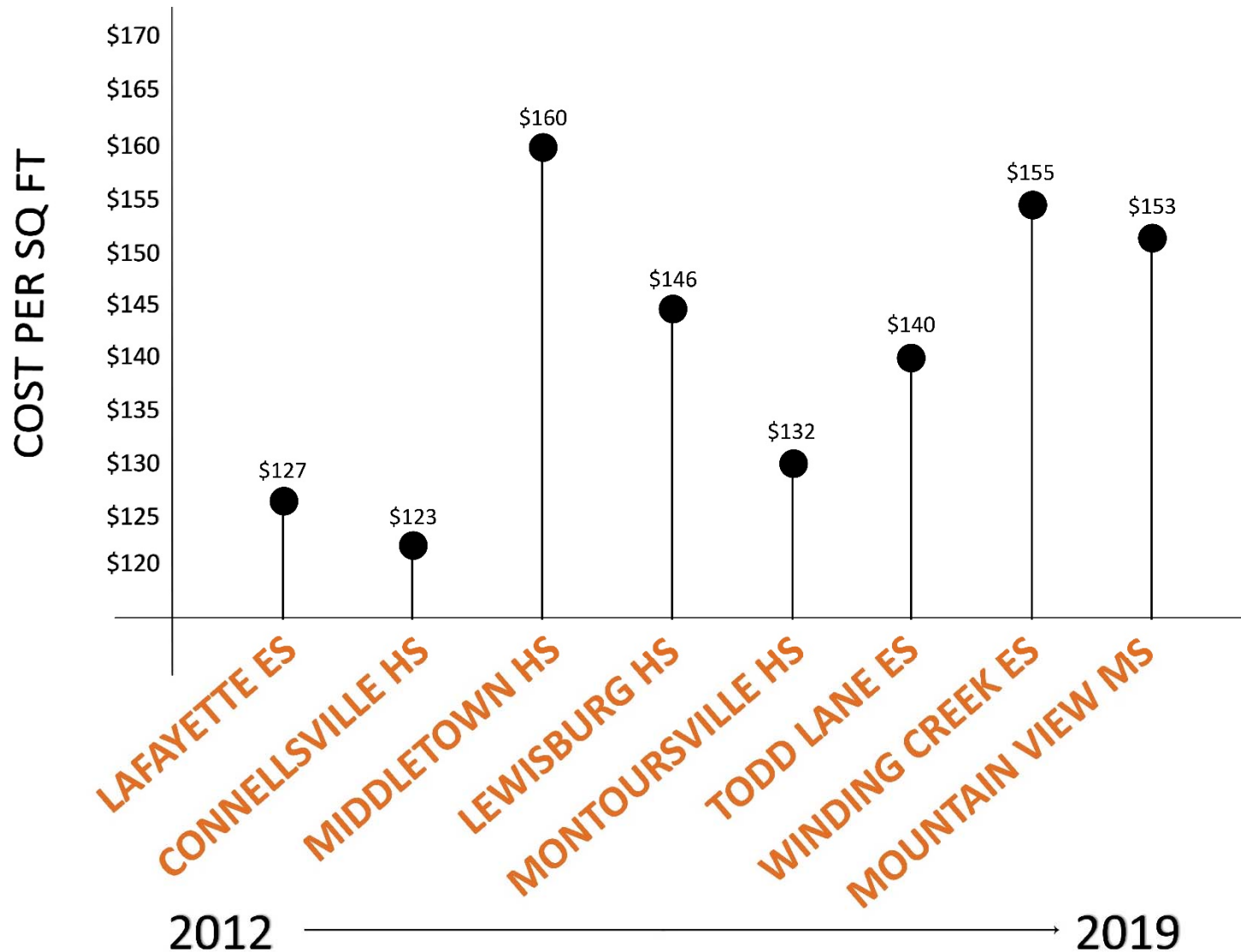
Pedagogy

Places

Possibilities

DEFINING QUALITY

- Holistic Approach to Design Process
- Engaging People, Pedagogy, & Places to create learning opportunities
- Integration of interiors and furniture to enhance educational spaces
- Smart detailing and material selection
 - Relationships with contractors to develop feedback loop for cost effective detailing
 - Eliminate redundant systems
 - Provide value over time
- Selecting building systems based on ROI
 - Life Cycle Cost
 - Minimized operational costs
 - Maximized educational opportunities
 - sustainability



Cost Effective Design

- PDE Report 30
- Lowest Cost – 1997 - 2016

Project Management

- Manage scope and quality
- Manage Schedule – Know when to bid
 - Time = money
- Manage construction Change Order Percentage
 - Less than .5% for New Construction
 - Less than 1.5% for Renovation/Additions
 - No fee on change orders

Guaranteed Budget

- School Board Approved
- Clearly Defined Scope of Work
- If Project is Over Budget – Project will be rebid at CRA's Cost

WHAT IS REPORT 30?

CALENDAR YEAR 2014 - COSTS OF NEW SCHOOL BUILDINGS BASED ON BIDS

Printed 07/20/2017

BASED ON PLANCON PART G REVIEW THROUGH 07/2017

SORTED BY COST PER SQUARE FOOT

| Pjrt No. | SD/CTC Name | Bldg Type | FTE | Bid Date | Structure, F & E, Site Costs | Est Tech Arch Fees | Movable Fixtures & Eqpt | Site Dev Cost | Site Dev Arch Fees | Site Acq Cost | Structure Cost | Arch Area | Cost Per Sq Ft |
|----------|---------------------|-----------|-------|----------|------------------------------|--------------------|-------------------------|---------------|--------------------|---------------|----------------|-----------|----------------|
| 3779 | Lewisburg Area SD | SEC | 772 | 10/2014 | 34,224,903 | 0 | 789,180 | 4,600,200 | 276,012 | 0 | 28,559,511 | 181,626 | 157.24 |
| 3754 | Middletown Area SD | SEC | 864 | 04/2014 | 40,123,003 | 0 | 2,321,903 | 4,085,344 | 245,120 | 0 | 33,470,636 | 196,404 | 170.42 |
| 3788 | Shikellamy SD | MS | 871 | 09/2014 | 20,379,137 | 0 | 176,590 | 2,581,670 | 129,054 | 0 | 17,491,823 | 94,580 | 184.94 |
| 3777 | Montour SD | ES | 1,358 | 12/2014 | 43,956,690 | 0 | 3,670,000 | 4,007,971 | 4,007,971 | 0 | 32,270,748 | 171,329 | 188.36 |
| 3766 | Bristol Township SD | ELEM | 1,400 | 04/2014 | 36,017,415 | 0 | 1,100,000 | 5,599,000 | 347,982 | 0 | 28,970,433 | 140,500 | 206.20 |
| 3767 | Bristol Township SD | ELEM | 1,400 | 03/2014 | 36,104,130 | 0 | 1,100,000 | 5,619,000 | 348,814 | 0 | 29,036,316 | 140,500 | 206.66 |
| 3708 | Freeport Area SD | MS | 620 | 05/2014 | 30,306,403 | 0 | 300,000 | 5,548,741 | 339,211 | 0 | 24,118,451 | 115,550 | 208.73 |
| 3768 | Bristol Township SD | ELEM | 1,400 | 10/2014 | 38,923,422 | 0 | 1,100,000 | 5,259,791 | 375,454 | 0 | 32,188,177 | 140,500 | 229.10 |

COST PER SQUARE FOOT = STRUCTURE COSTS + ARCHITECTS FEES + SEWAGE DISPOSAL
 DIVIDED BY ARCHITECTURAL AREA IN SQUARE FEET

CASE STUDIES

MIDDLETOWN AREA HIGH SCHOOL

Base Bid Construction
Estimate
\$33,750,000

Construction Cost
(includes selected alternates)
\$33,723,109

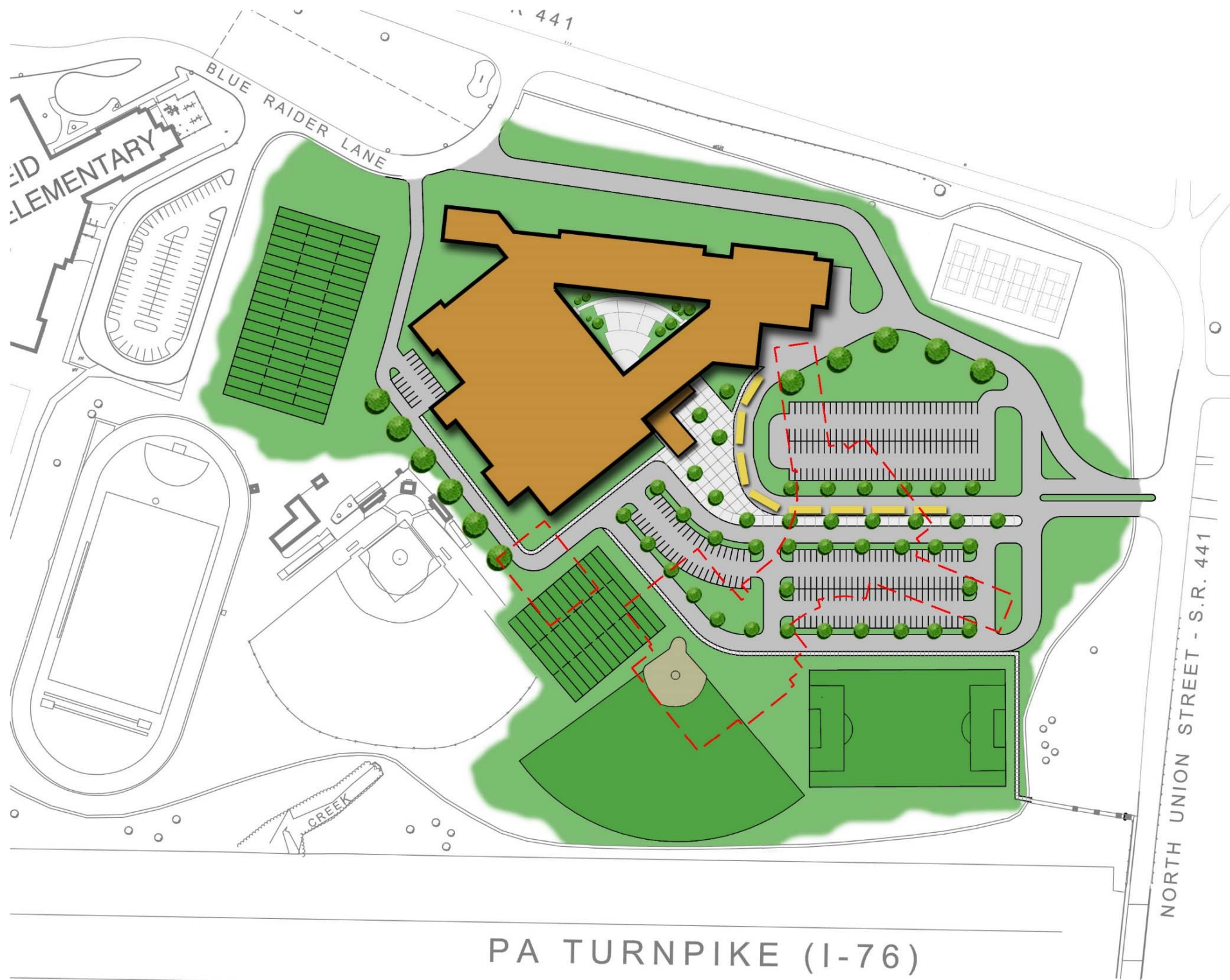
Construction Completion
August 2016

Cost Per SF
\$170/SF

Project Size
202,700 SF New
800 students



SITE PLAN



PA TURNPIKE (I-76)

NORTH UNION STREET - S.R. 441

...ID
...ELEMENTARY

BLUE RAIDER LANE

441

CREEK



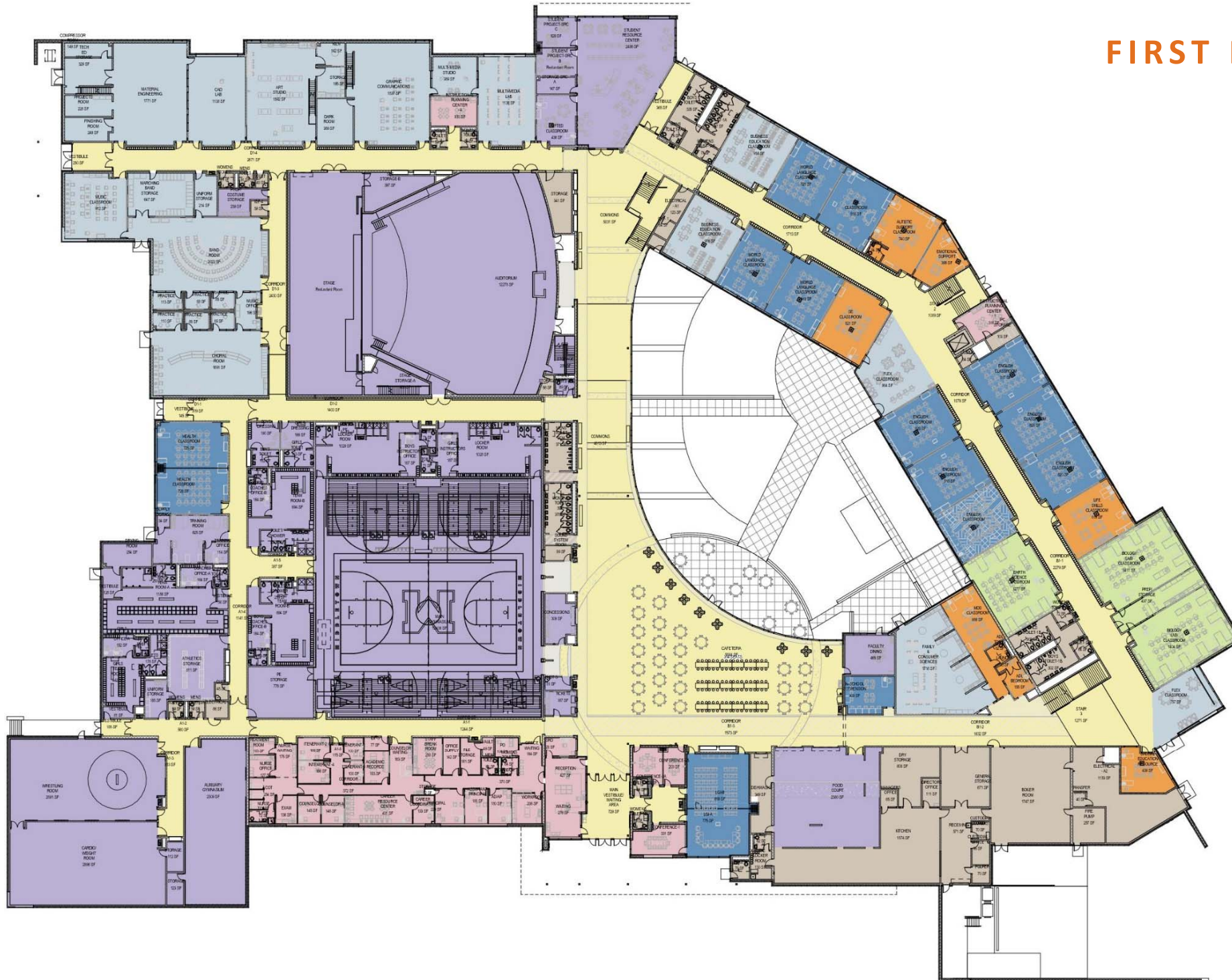
21st Century Design

800 Students

Building Modernization

Flexible space

FIRST FLOOR PLAN



SECOND FLOOR PLAN







24

108











LEWISBURG AREA HIGH SCHOOL

Construction Estimate

\$31,500,000

Construction Cost

\$30,500,070

Cost / Square Foot

\$157.24

Construction Completion

December 2016

Project Size

182,481 SF

700 students







OVERALL FIRST FLOOR PLAN



Rohrer Driver Meeting
←







LEWISBURG WRESTLING 100 MATCH WINNER
DALL FARMER '07
DREW FARMER '08
DREW FARMER '09
DREW FARMER '10
DREW FARMER '11
DREW FARMER '12
DREW FARMER '13
DREW FARMER '14
DREW FARMER '15
DREW FARMER '16
DREW FARMER '17
DREW FARMER '18
DREW FARMER '19
DREW FARMER '20
DREW FARMER '21
DREW FARMER '22
DREW FARMER '23
DREW FARMER '24
DREW FARMER '25

LEWISBURG GIRLS BASKETBALL CONFERENCE CHAMPIONS
1994-1995
1996-1997
1998-1999
2001-2002
2003-2004
2005-2006
2007-2008
2009-2010
2011-2012
2013-2014
2015-2016
2017-2018
2019-2020
2021-2022
2023-2024
2025-2026

LEWISBURG BOYS BASKETBALL CONFERENCE CHAMPIONS
1994-1995
1996-1997
1998-1999
2001-2002
2003-2004
2005-2006
2007-2008
2009-2010
2011-2012
2013-2014
2015-2016
2017-2018
2019-2020
2021-2022
2023-2024
2025-2026

LEWISBURG TRACK CONFERENCE CHAMPIONS
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1998-1999
2001-2002
2003-2004
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2009-2010
2011-2012
2013-2014
2015-2016
2017-2018
2019-2020
2021-2022
2023-2024
2025-2026

LEWISBURG AREA HIGH SCHOOL

| Team | Points | Rebounds | Assists | Steals | Blocks | Turnovers | Fouls |
|-------|--------|----------|---------|--------|--------|-----------|-------|
| Home | 141 | 34 | 14 | 11 | 14 | 14 | 14 |
| Guest | 141 | 34 | 14 | 11 | 14 | 14 | 14 |

LEWISBURG GIRLS TRACK CONFERENCE CHAMPIONS
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2025-2026

LAHS

LAHS

LEWISBURG

