

The Arkansas Department of Education (ADE) is charged with overseeing the design and construction of school facilities in the state of Arkansas. The Arkansas School Facility Manual has been developed to provide consistent, clear information for school districts and design professionals as a new generation of schools is being created for Arkansas. The Standards & Guidelines contained within this section are the culmination of standards, accepted procedures, statutory requirements, and the experience of experts and authorities throughout the United States and establish a uniform level of quality for all public school buildings. The Standards & Guidelines will apply to new school facilities and new additions to existing buildings. Renovation to existing facilities should adhere to the Standards & Guidelines as outlined in Section 1200.

Since the Standards & Guidelines must communicate information about so many issues, the length and quantity of the document can be intimidating. However, understanding how the Standards & Guidelines is organized and which information will be needed during the various phases of the process will enable each participant to be better prepared for the exciting opportunity of creating school facilities.

An important consideration in developing a state-wide program that must provide equity among districts is the balance between broadly applicable standards and program delivery. A fundamental tenet of educational facility planning is that school facilities must be responsive to a school district's educational program. The Standards & Guidelines allows districts to develop building programs that respond to their current, unique needs as well as prepare for their educational future. There are also many different ways in which districts are delivering educational programs and helping students accomplish learning objectives at every school and school level. By designing classrooms and other instructional spaces to be flexible and adaptable, individual districts are better prepared to accommodate future educational program developments.

Throughout the planning, design, and construction phases of a project there are three factors that must be considered and held in balance: quality, cost, and time (schedule). The Standards & Guidelines was created to provide parameters for balancing these three essential elements fairly for all projects throughout the state.

The Standards & Guidelines are intended as a starting point for architects, engineers, other design professionals, and school districts to develop solutions to meet the needs of the individual school community. The information is provided to allow the planning, design, and construction process to proceed most efficiently, without undo restriction on the design of the facilities, focusing efforts on the creation of best possible school facilities for each project rather than "reinventing the wheel".

The Arkansas School Facility Manual is the exclusive property of the Arkansas Department of Education of the State of Arkansas, and the Arkansas Department of Education reserves the right to add, delete, modify, or otherwise change the content of this manual at any time. Specific information contained within the manual will be periodically modified to reflect current and future trends in teaching methodologies,

construction and educational technologies, and lessons learned as Arkansas proceeds with the ongoing task of improving and maintaining its schools.

The Standards & Guidelines are organized into ~~eight~~ seven chapters that explain the planning, design, and construction process; suggest current educational best practices and facility planning concepts, recommend components of an education framework, identify the square footage provisions for each school level; detail the features and amenities of each space; and provide systems, materials, guidelines information; and technology infrastructure recommendations. This chapter contains an outline of the information found within this section of the Arkansas School Facility Manual and a summary of the standards and guidelines contained within each chapter.

The chapters included in this section of the Arkansas School Facility Manual are:

- Chapter 1: How to Use This Section
- Chapter 2: Educational Facility Planning Concepts
- Chapter 3: Educational Framework
- Chapter 4: Site Guidelines
- Chapter 5: Program of Requirements [Bracketing]
- Chapter 6: Program Space Guidelines
- Chapter 7: Building Systems
- ~~Chapter 8: Cost Guidelines~~

### **Chapter 1: How to Use This Section**

Chapter 1 contains introductory information that indicates the organization of Section Two; an executive summary highlighting the standards and guidelines; a glossary of general Arkansas School Facility Manual definitions and abbreviations; and a general overview of the planning, design, and construction process intended to respond to the educational facility needs of Arkansas schools.

### **Chapter 2: Educational Facility Planning Concepts**

Chapter 2 contains planning concepts related to current educational best practices, special education, workforce development, and program and design capacity. The facility planning concepts contained within this chapter are intended to be informative only and are not standards.

### **Chapter 3: Educational Framework**

Chapter 3 contains a series of broad principles associated with organizational, facility, program, and service issues, including: grade configuration, school size, and class size. In conjunction with the Chapter 2: Educational Facility Planning Concepts, Chapter 3 provides assistance when developing an educational facility.

### **Chapter 4: Site Guidelines**

Chapter 4 contains information about site size and site amenities. Guidelines are also outlined for a multitude of factors that must be considered, including: various types of circulation and site access, drainage, play fields and playgrounds, fencing, lighting, mechanical/Chapter 5 assists the school district in establishing the size and quantity of instructional and support spaces for construction of a new facility or an

electrical yard, landscaping, site furnishings, and exterior security provisions.

**Chapter 5: Program of Requirements [Bracketing]**

Chapter 5 assists the school district in establishing the size and quantity of instructional and support spaces for construction of a new facility or an addition to an existing facility. The size of a school facility is based on total student population and grade configuration. The Program of Requirements identifies an overall square feet for a facility and then identifies spaces that must be included and provides an allowance for additional support spaces that the district may choose based on their programs and method of delivery.

**Chapter 6: Program Space Guidelines**

Chapter 6 contains space plates for each type of space in the Programs of Requirements. Most space plates contain a graphic representation and information related to features, loose furnishings, finishes, and notes.

**Chapter 7: Building Systems**

Chapter 7 provides an overview and examples of the various materials and systems that have been used to establish a design standard and level of quality for the systems and materials to be incorporated into new school buildings and additions to existing school buildings.

**Chapter 8: Cost Guidelines**

~~Chapter 8 will be added at a later date.~~

The Standards and Guidelines contain a vast number of educational planning, facility design, and construction concepts. The next few pages serve as a summary of the standards and guidelines contained within Section Two of the Arkansas School Facility Manual. For additional information, refer to the various chapters for clarification.

Standards are identified by **bolded** text. Guidelines are identified as regular text.

Chapter	Standards & Guidelines	Notes										
3	<p><b>GRADE CONFIGURATION</b>                      The Program of Requirements has been developed to address any K-12 grade configuration.</p>											
3	<p><b>CLASS SIZE:</b></p> <table border="0"> <tr> <td><b>A. Pre-Kindergarten/Kindergarten</b></td> <td><b>20 students</b></td> </tr> <tr> <td><b>B. 1<sup>st</sup> Grade through 3<sup>rd</sup> Grade</b></td> <td><b>25 students</b></td> </tr> <tr> <td><b>C. 4<sup>th</sup> Grade through 6<sup>th</sup> Grade</b></td> <td><b>28 students</b></td> </tr> <tr> <td><b>D. 7<sup>th</sup> Grade through 12<sup>th</sup> Grade</b></td> <td><b>30 students</b></td> </tr> <tr> <td><b>E. Workforce Development</b></td> <td><b>30 students</b></td> </tr> </table>	<b>A. Pre-Kindergarten/Kindergarten</b>	<b>20 students</b>	<b>B. 1<sup>st</sup> Grade through 3<sup>rd</sup> Grade</b>	<b>25 students</b>	<b>C. 4<sup>th</sup> Grade through 6<sup>th</sup> Grade</b>	<b>28 students</b>	<b>D. 7<sup>th</sup> Grade through 12<sup>th</sup> Grade</b>	<b>30 students</b>	<b>E. Workforce Development</b>	<b>30 students</b>	<p>Districts may decrease class size by adding teaching stations at their own expense or by utilizing innovative program delivery methods that allow multiple uses of spaces.</p>
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5	<p><b>SQUARE FOOT PER STUDENT</b></p> <p><b>A. A gross square foot per student for the overall building may be calculated using the total student population and the total gross square feet indicated by the Program of Requirements.</b></p> <p><b>B. The Program of Requirements indicates the following approximate square foot per student ranges:</b></p> <ol style="list-style-type: none"> <li><b>1. ES = -119 - 151</b></li> <li><b>2. MS = -124 - 182</b></li> <li><b>3. HS = -161 - 243</b></li> <li><b>4. PK-8 = Blended</b></li> <li><b>5. PK-12 = Blended</b></li> </ol>	<p>Total student population is established by the highest projected enrollment beginning three years out from the date of the 10-year projection.</p>										

Chapter	Standards & Guidelines	Notes
5	<p><b>NET AND GROSS SQUARE FOOTAGE</b> The net square footage will be composed of the following two components:</p> <p><b>A. Required Spaces.</b> The Program of Requirements identifies the quantity and size of all required spaces to provide an adequate education.</p> <p><b>B. Support Space Allowance.</b> The Program of Requirements provides a net square foot allowance for districts to provide flexibility for their instructional programs. Districts must include the indicated support space allowance in a new school. Support space allowance shall not be used to increase the size of gymnasiums or auditoriums.</p> <p><b>C. The gross square footage will be equal to the net square footage plus a construction factor that accounts for wall thickness and equal to 10 of the total net square footage.</b></p>	<p>Size of the building is driven by the total number of students.</p> <p>The percentage of support space allowance is 10% for elementary school spaces and 15% for middle and high school spaces.</p>
5	<p><b>SIZE MODIFICATION OF INDIVIDUAL SPACES</b></p> <p><b>A. The size standard for all individual required spaces is established by the Programs of Requirements located in Chapter 5.</b></p> <p><b>B. Sizes indicated by the Programs of Requirements located in Chapter 5 for support spaces are not intended to be standards but to serve as guidelines for planning and design purposes.</b></p> <p><del><b>C. Size of individual required space may be altered <math>\pm</math> 5% for design and structural purposes only provided the following:</b></del></p> <p><del><b>1. The standard for total gross square footage is met.</b></del></p> <p><b>D. Individual required spaces may NOT be removed or reduced in size.</b></p>	<p>The selection of support spaces is limited only by the following basic rules:</p> <p><b>a. The standard for total gross square footage must be met. Any overages will be at district expense.</b></p> <p><del><b>b. If an instructional space is selected, its size may only be altered by the design professional for design and structural purposes.</b></del></p>
4	<p><b>SITE SIZE</b></p> <p><b>A. The recommended site sizes are:</b></p> <ol style="list-style-type: none"> <li><b>1. Elementary School: 10 acres plus 1 acre per 100 students</b></li> <li><b>2. Middle School: 20 acres plus 1 acre per 100 students</b></li> <li><b>3. High School: 35 acres plus 1 acre per 100</b></li> </ol>	<p>The site sizes shown should be considered as the minimum size to provide adequate pedestrian &amp; vehicular circulation, parking for staff, students, &amp; visitors, and playgrounds and playfields.</p>

Chapter	Standards & Guidelines	Notes
	<p>students</p> <p>4. Combination Schools:</p> <p>a. PK-12 School: 40 acres plus 1 acre per 100 students</p> <p>b. PK-8 School: 20 acres plus 1 acre per 100 students</p> <p>B. Deviations from the site size may be required because of extenuating circumstances. <del>Deviations from the site size recommendations must be approved by the Arkansas Department of Education.</del> The site sizes shown should be considered.</p>	<p>When selecting a site, the District should consider current and future student needs, changing demographics, and possible development around the site.</p> <p>It is recognized that not all sites, especially urban sites, will be able to meet those recommendations. The Design Professional, working with the District, should make every attempt to meet as many of the recommendations as possible. <del>Variances will be considered by the Department of Education.</del></p>

Chapter	Standards & Guidelines	Notes														
5	<p><b>PROGRAMS</b>                      The following programs are guidelines. It is the responsibility of each district to determine the appropriate programs for their students. The programs listed below were used to develop the spaces contained in the Programs of Requirements.</p> <ul style="list-style-type: none"> <li>A. Elementary Schools                             <ul style="list-style-type: none"> <li>1. Academic Core</li> <li>2. Special Education</li> <li>3. Visual Arts</li> <li>4. Music</li> <li>5. Physical Education</li> </ul> </li> <li>B. Middle Schools                             <ul style="list-style-type: none"> <li>1. Academic Core</li> <li>2. Special Education</li> <li>3. Visual Arts</li> <li>4. Music</li> <li>5. Technology Education</li> <li>6. Family and Consumer Sciences</li> <li>7. Physical Education</li> <li>8. Workforce Development</li> </ul> </li> <li>C. High Schools                             <ul style="list-style-type: none"> <li>1. Academic Core</li> <li>2. Special Education</li> <li>3. Visual Arts</li> <li>4. Music</li> <li>5. Physical Education</li> <li>6. Workforce Development</li> <li>7. Alternative Education</li> </ul> </li> </ul>	<p>Combination Schools contain the programs from which those schools are comprised.</p> <p>Example: A Pre-K – 8 school would contain all the elementary school programs and the middle school programs.</p> <p>Workforce development is an exception. Accreditation Requirements make it necessary for all comprehensive high schools to make available at least three programs of study from three different occupational areas. Refer to Workforce Development in Chapter 2.</p>														
5	<p><b>SIZE OF SPECIFIC SPACES</b>                      The following sizes are standards from the Programs of Requirements in Chapter 5. The spaces listed below are intended to be samples and representative of typical spaces.</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 60%;">Regular Classrooms</td> <td style="text-align: right;">850 SQFT</td> </tr> <tr> <td>Pre-Kindergarten/Kindergarten Classrooms</td> <td style="text-align: right;">1,000 SQFT</td> </tr> <tr> <td>Special Education Classrooms</td> <td style="text-align: right;">850 SQFT</td> </tr> <tr> <td>Resource Room</td> <td style="text-align: right;">450 SQFT</td> </tr> <tr> <td>Art Classroom</td> <td style="text-align: right;">1,200 SQFT</td> </tr> <tr> <td>Music Classroom</td> <td style="text-align: right;">1,200 SQFT</td> </tr> <tr> <td>Student Dining</td> <td style="text-align: right;">50% TSP x 15 SQFT/Student</td> </tr> </table>	Regular Classrooms	850 SQFT	Pre-Kindergarten/Kindergarten Classrooms	1,000 SQFT	Special Education Classrooms	850 SQFT	Resource Room	450 SQFT	Art Classroom	1,200 SQFT	Music Classroom	1,200 SQFT	Student Dining	50% TSP x 15 SQFT/Student	<p><math>\frac{TSP}{Population} = \text{Total Student Population}</math></p> <p>The Program of Requirements contained in Chapter 5 details the size and quantity of all instructional and support space allowances that must be included in new school construction.</p>
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Chapter	Standards & Guidelines	Notes
7	<p><b>EXTERIOR WALLS</b></p> <p>A. Options available for numerous, insulated wall systems.</p> <p>B. All systems to be well insulated and have moisture barrier.</p>	<p>Minimum insulation R values.</p> <p>40-year minimum lifespan.</p>
7	<p><b>ROOFS</b></p> <p>A. New construction to be sloped or low slope roof system.</p> <p>B. Options available for numerous, UL class "A" systems with warranties.</p> <p>C. Vapor barrier are critical for weather protection.</p>	<p>Meet "energy star" values</p> <p>Minimum, thermal resistant U-values.</p>
7	<p><b>OPENINGS</b></p> <p>A. All academic spaces to have natural daylight.</p> <p>B. Minimize east and west facing glass.</p> <p>C. Interior wood doors to be solid core and factory finished.</p>	<p>Encourage top lighting. Provide uniform light distribution. Select formaldehyde-free doors constructed with recycled or recovered content.</p>
7	<p><b>INTERIOR FLOOR FINISHES</b></p> <p>A. Use water-based coatings and adhesives.</p> <p>B. Options available for soft and hard surface flooring.</p> <p>C. Choose low-VOC emitting materials.</p> <p>D. Meet carpet "green label plus" rating and use carpet reclamation programs.</p>	<p>Use products containing recycled content.</p>
7	<p><b>PLUMBING</b></p> <p>A. Water piping should not be installed under floor slabs.</p> <p>B. Domestic water systems within the building shall be type "K" or "L" copper tubing.</p>	<p>No additional notes.</p>
7	<p><b>HVAC</b></p> <p>A. All new construction will include air conditioning.</p> <p>B. Several systems are available and selection shall be based on a life cycle cost analysis.</p> <p>A. All temperature control systems shall be electronic, direct digital controls.</p> <p>B. Commissioning of HVAC is recommended.</p>	<p>All systems shall be designed in compliance with ASHRAE standard 90.1 Energy Code.</p> <p>Control indoor and outdoor HVAC noise.</p>

Chapter	Standards & Guidelines	Notes
7	<p><b>ELECTRICAL</b></p> <p>A. Conductors shall only be copper.</p> <p>B. All branch circuits <del>and feeder</del> circuits should be run above ceilings and within walls.</p> <p>C. Interior lighting shall be controlled by occupancy sensors, automatic timed lighting controlled system or a combination of both.</p>	<p>Within building electric system, provide technology infrastructure such as cable trays, conduit, boxes, etc.</p>
8	<p><b>TECHNOLOGY</b></p> <p>A. All instructional spaces will be wired for voice, video, data, and power.</p> <p>B. All offices and meeting spaces will be wired for voice, data, and power.</p>	<p>Selected offices may also be wired for video.</p>

**SCHOOL FACILITY BUILDING PROGRAMS**

- A. School facility, planning, design and construction is a complex project delivery process, the end result of which includes new buildings, renovation of older existing buildings, and the construction of additions to accommodate program enhancements to existing buildings. This process includes facility quality, project cost, and project delivery schedules. A successful project includes the meaningful interaction and teamwork of the School District, the Design Professional and the Constructor. The dynamics of change in educational delivery models and the need to improve the existing physical plants to accommodate that change requires creative planning and the investigation of design alternatives that will result in a school facility that not only meets the standards and guidelines herein but provides an environment in which the district can achieve the highest results in student education.
- B. School facility planning, conducted annually by the school district, includes immediate, short-term and long-range planning timeframes. ~~as defined in Section 1 of the Arkansas School Facility Manual and as required by the Arkansas Department of Education.~~
- C. New school buildings shall be planned and designed in accordance with the Program of Requirements including facility space standards defined in Chapter 5 and the building systems standards and guidelines defined in Chapter 7. Site selection criteria are defined in Chapter 4.
- D. Renovation and repairs to existing school facilities shall be planned and designed in accordance with the “Safe, Dry, and Healthy” priorities further defined herein and the applicable sections of Chapter 7.
- E. Pre-Manufactured portable buildings, whether leased or owned by the school district, shall be for short-term temporary use and in accordance with the policies of the Arkansas Department of Education and local codes.

**EXISTING FACILITIES**

- A. Many of the existing school facilities in Arkansas have been built over time and include buildings with multiple additions or school sites with more than one building. Older existing facilities generally have various deficiencies that deter or detract from a good learning environment. In order to conduct a building program or correct building deficiencies, an evaluation of building condition and priorities for improvements should be undertaken. A thorough Pre-Design assessment of building condition with an emphasis on “Safe, Dry, and Healthy” should be required in order to determine the need for renovation or repairs. Consideration should also be given to realistically maintaining existing spaces and functional areas, although not originally designed in accordance with new facility space standards, with application of the new space standards where practical.

**EXISTING FACILITIES (continued)**

- B. The availability of project funding to provide equitable facilities throughout Arkansas may require improvements to existing facilities to be accomplished over time through phased construction projects. The highest priority should be to provide a safe environment that is structurally sound, fully accessible, has fully functioning life safety systems and is protected from the elements. Subsequent priorities would include providing improvements for interior environmental comfort, building security, safe electrical systems, windows, walls, finishes, systems, and fixed equipment.
- C. Program enhancements for each school may be considered as required in accordance with the district's facility master plan, educational delivery systems, current or proposed educational specifications and to conform to changing demographics. New additions to existing buildings shall be designed to conform to the program of spaces and room size requirements stipulated in Chapter 5.

**SAFE, DRY, and HEALTHY**

- A. The priorities shall be called the "safe, dry, and healthy" approach. Upgrade the school facilities to provide a healthy teaching environment, a safe and secure structure, and eliminate water penetration.
  - 1. Safe
    - a. Fire safety provisions must be updated to meet current code requirements for fire alarm, extinguishers, smoke detectors. Existing fuel consuming equipment, such as boilers, must have safety control devices.
    - b. Stairs, elevators, and exits must meet code exiting and fire rating requirements. Each floor level must have at least two remote exits leading directly to the exterior.
    - c. Highly combustible materials shall be removed. Evidence of asbestos and mold shall be mitigated as recommended by "AHERA" requirements.
    - d. ADA handicap provisions shall be provided.
    - e. Provide potable water supply.
  - 2. Dry
    - a. Site drainage and sanitary sewer problems need to be corrected.
    - b. Roof systems that allow water to enter the building must be corrected. Replace or repair leaking roofing membranes and flashings. In many cases, roof penetrations cause leaks.
    - c. Water entering a building shell at openings around windows and doors should be sealed, and broken windows should be replaced.

**SAFE, DRY, and HEALTHY (continued)**

3. Healthy
  - a. Adequate heating and ventilation for good teaching and learning environment. Control system must function reasonably well. Energy conservation and excessive operating costs must be compared to new mechanical systems and controls. Ventilation must meet current applicable codes and standards.
  - b. All unplanned openings between the building shell components shall be sealed for comfort and energy conservation.

**PRE-DESIGN ASSESSMENT**

Each building project shall begin with a PRE-DESIGN ASSESSMENT intended to develop a detailed scope of work as required to achieve “safe, dry, and healthy” criteria. The scope of work shall become the program for design and the ‘yardstick’ to measure the highest priority deficiencies in existing buildings. The following checklist would be used in the order of the priority indicated.

**PRIORITY I**

- A. Deals with features of existing buildings for the protection and safety of the occupants. Where feasible, deficiencies should be upgraded to meet current codes and new building standards. Roofing problems should be repaired if assessment condition so indicates. Priorities include but are not limited to the following:
  1. Life Safety [Meet all code requirements]  
For example:
    - a. If there is not a fire alarm system, or if the present system is outdated and does not meet code, add new.
    - b. All corridor/room fire alarm devices shall be the strobe/horn-type.
    - c. Exit requirements shall meet Arkansas Building Code.
    - d. Stairs shall have fire-rated enclosure.
    - e. Stair railings must pass the 4” ball test.
    - f. Kitchen hoods must have fire suppression system.
    - g. All exit signs must meet code for size and location.
    - h. Emergency lighting must meet code for location.
    - i. Emergency/egress lighting must have back-up.
    - j. Requirement to have a minimum of a zoned general alarm system with pull stations at all exits.

**PRE-DESIGN ASSESSMENT (continued)**

2. Structural Deficiencies  
For example:
  - a. All structural deficiencies
  - b. Check cracking in wall materials to determine cause, if possible.
  - c. Repair and fill expansion and contraction cracks.
  - d. Investigate settlement cracks to determine need to repair or replace elements.
  - e. Repair/replace lintels that appear undersized or bearing is inadequate.
  - f. Repair/replace severely cracked floor slabs.
  - g. If exterior and interior wall materials are in good shape, insert control or expansion joints if necessary
  - h. For wood-framing floors and roofs, check for compliance with Arkansas Building Code.
  - i. Meet or exceed FEMA standards for seismic structural systems.
  
3. Handicap  
For example:
  - a. Must comply with all ADA handicap standards.
  - b. Chair lifts cannot be used as a substitute for an elevator.
  - c. Provide handicap toilet stalls with grab bars.
  - d. Interior signage to contain braille.
  
4. Roofing
  - a. Replace or repair:
    - leaking
    - damaged
    - inadequate moisture barriers
    - inadequate insulation
    - inadequate drainage
    - flashings and accessories

**PRIORITY II**

- B. Deals with environmental comfort of students and staff as well as considering security measures. As systems age, consideration should be given to repair rather than replace if conditions justify. Priorities include but are not limited to the following:
  1. Security
    - a. All exits, except main doors, shall be locked from the exterior during occupancy.

**PRE-DESIGN ASSESSMENT (continued)**

2. Plumbing / Water Supply
  - a. If the quantity of plumbing fixtures do not meet the Arkansas Plumbing Code, add as required.
  - b. All plumbing fixtures that do not meet ADA standards shall be replaced.
  - c. All potable water piping shall be safe, sanitary, and in good working condition.
  - d. If there are no back-flow preventors, add to system.
  - e. Replace crack or damaged fixtures.
  - f. Test for the presence of lead.
  - g. If well is used for potable water, determine if arsenic contamination is an issue.
  - h. Water supply (hot and/or cold) to the lavatories, sinks, and drinking fountains shall have angle stops with loose key handles.
  - i. Gas supply to science rooms shall have an emergency solenoid-type, automatic shutoff valve with a manual reset.
  - j. Domestic water heater system must maintain 120 degree water to sinks and showers; 140 degree water to kitchen sink; and 180 degree water for warewashing.
  
3. Heating / Ventilation System
  - a. Systems which are not compliant with the new building standards and guidelines are acceptable, providing they can meet Arkansas Mechanical Code and all applicable local, state, and national codes. They should have a long-term life expectancy.
  - b. If PVC piping is located in plenum spaces, remove or properly insulate for fire/smoke.
  
4. Electrical
  - a. Electrical system shall be a safe, grounded system.
  - b. Transient voltage surge protection and lightning arrester devices shall be located on main service distribution equipment.
  
5. Windows/Doors
  - a. Replace and repair doors and windows that do not perform adequately and allow unacceptable infiltration

**PRE-DESIGN ASSESSMENT (continued)****PRIORITY III**

- C. Includes aesthetic features to provide an improved teaching environment improve routine maintenance procedures and repair, refurbish, or replace deficient interior finishes. Priorities include but are not limited to the following:
1. Finishes
    - a. Replace all finishes that have deteriorated to the degree that they pose a safety, sanitary, or cleaning problem.
    - b. Kitchen facilities shall include finishes in accordance with regulations of the Arkansas Department of Health.
    - c. Replace all malfunctioning window hardware.
    - d. Replace all wood exterior doors.
    - e. Interior doors to have lever handles.

**PRIORITY IV**

- D. Includes program enhancements that require modifying spaces, moving existing walls or adding new walls to create instructional and support spaces sized to meet the new standards and guidelines, insofar as practical. Priorities include but are not limited to the following:
1. Program Enhancements
    - a. Change walls to reconfigure space
    - b. Add or replace features such as casework, shelving, marker boards, etc.

**IMPLEMENTATION OF STANDARDS AND GUIDELINES**

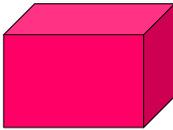
- A. Implementation of the standards and guidelines found in this section is a vital part of the planning, design, and construction process.
- B. The steps listed above provide a narrative of the concepts for applying the standards and guidelines to various school facility projects.
- C. Following are graphic representations of the application of the standards and guidelines found in this document.

## Standards & Guidelines Implementation

### New Construction

$$\text{Total Facility Size} = \# \text{ Students} \times \text{SF/Student}$$

- New Construction
- Apply All Standards & Guidelines



New Construction



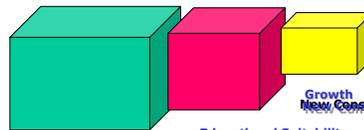
## Standards & Guidelines Implementation

### Renovate Existing & Add New Construction

$$\text{Total Facility Size} = \text{Existing SF} + \text{New SF} + \text{Growth SF}$$

$$\text{Growth SF} = \text{Projected Enrollment Capacity} \times 143 \text{ SF [AVG]}$$

- Renovate Existing
- Priorities 1-4



Building Condition  
Renovate Existing

Educational Suitability  
New Construction

Growth  
New Construction

Enrollment Growth  
[Addition of New  
School]

All Standards &  
Guidelines

New Construction

All Standards & Guidelines

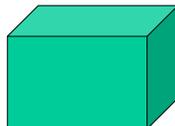
## Standards & Guidelines Implementation

### Abandon or Replace Facility Based On:

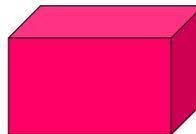
- Facility Condition Index
- Life Cycle Cost [50 yrs. +/-]
- Educational Adequacy
- Possible Growth

Abandon Facility

- "Safe & Dry" [Priority 1,2]



Abandon



New Construction

Future New Construction

All Standards & Guidelines

**GENERAL ARKANSAS SCHOOL FACILITY MANUAL DEFINITIONS**

**Construction Factor**

The construction factor shown is the area of a building which is used for wall thickness, pipe chase, lockers, etc., in the wall.

**Distance Learning**

The process of transmitting and/or receiving instruction and demonstration via video and/or audio means.

**Guideline**

A guide or recommendation; not required.

**ORFF**

Large instruments capable of being beat upon by children.

**School District**

A general term applied to a legally constituted school entity which is governed by a Board of Education. They may include city, local, exempted village, and joint vocational school districts.

**Standard**

A rule and requirement; mandatory.

**Urban Sites**

School facility sites that are reduced in size because of being land-locked or restricted by the topography.

**Workforce Development**

Programs at the 6-12 grade level to prepare students for entry into skilled work occupations.