

SPS Guidelines for Existing School Remodeling

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EXISTING FACILITIES

GENERAL

- A. Many existing school facilities 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 assessment of building, site, and playground condition with an emphasis on “Safe, Dry, and Healthy” should be conducted 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.
- B. Highest priority should be to provide a safe environment that is structurally sound, accessible, has 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.

LEED™ CERTIFICATION AND THE ROLE OF STANDARDS

- A. Springfield Public Schools R-12 will use the Leadership in Energy and Environmental Design (LEED™) standard as a benchmark for comparing different design proposals and as a resource for investigating opportunities in sustainable design.
- B. Springfield Public Schools R-12 will use current LEED™ standards for the major building renovation process. Initial renovation design efforts shall support the award of the Silver designation, as a minimum.
- C. The implementation of all sustainable design components shall be cost effective and demonstrate a favorable life-cycle cost compared to traditional technologies.
- D. The Springfield Public Schools R-12 Board of Education shall, in each individual major renovation project, direct and authorize the use of LEED™ standards for design, bid, and construction.

BUILDING REASONABLE LIFE

- A. Although some buildings may last hundreds of years, there is a reasonable life expectancy for school buildings that take into account factors such as:
 - a. Construction materials & methods
 - b. Environmental factors
 - c. Longer term building adequacy, efficiency, & economy
 - d. Technology changes
 - i. It should be noted that upgrading and/or moving of technology to include the infrastructure, phones, data lines, camera cable, fire alarm, PA, server farms, etc., is a very complex issue; especially in an older building. Frequently this factor and its potential impact are not addressed until after the fact.
 - e. Educational methods including programming and curriculum
 - f. Safety, health, & comfort
 - g. Building use
 - h. Maintainability
- B. 50-75 years is a reasonable lifespan for most existing buildings. Major remodeled sections may fall under the lesser lifespan of newer construction (35-50 years).

CURB APPEAL

- A. Curb appeal is to be considered in any remodeling of older buildings.
- B. The time of major addition or remodeling is the perfect time to update the exterior aesthetics of the building and grounds. Emphasis must be placed on the following:
 - a. Appealing and easy to maintain landscaping.
 - b. Designs should be considered that will stand the test of time.
 - c. Exterior building features that add to the character of the building, setting, and surrounding community.

CLASS SIZE GOALS

- A. When possible, class sizes shall align with the current Springfield Public Schools SP5 Strategic Plan.

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 applicable code requirements for fire alarm, extinguishers, and smoke detectors. Existing fuel consuming equipment, such as boilers, must have safety control devices.
 - b. Stairs, elevators, and exits must be updated to meet applicable existing code for egress and fire rating. Each floor level must have at least two remote exits leading to the exterior.
 - c. Highly combustible materials shall be removed or stored in approved chemical/flammable storage cabinets.

- d. Evidence of asbestos and mold shall be mitigated as recommended by “AHERA” requirements.
- e. ADA provisions shall be met through program accessible methods.

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.
- c. Inspection of the building envelop shall be completed. Water entering a building shell at openings around windows and doors should be sealed, and broken windows should be replaced.

3. Healthy

- a. Adequate heating and ventilation for good teaching and learning environment shall exist. 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. Air conditioning should be available in all buildings.
- c. All unplanned openings between the building shell components shall be sealed for comfort and energy conservation. This is an important factor in minimizing the loss of energy due to unwanted openings in windows, walls, or roofs.

ASSESSMENT

Each building project shall begin with a 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

For example:

- a. If there is not a fire alarm system, or if the present system is outdated, it shall be updated meet applicable code requirements
- b. All corridor/room fire alarm devices shall be the strobe/horn-type and conform to NFPA 101.
- c. Exit requirements shall meet applicable Building Code.
- d. Stair railings must pass the 4” sphere test.

- e. Kitchen hoods must have fire suppression system.
 - f. All exit signs must meet code for size and location.
 - g. Emergency lighting must meet code for location.
 - h. Emergency/egress lighting must have back-up.
 - i. Requirement to have a minimum of a zoned general alarm system with pull stations at all exits.
2. Structural Deficiencies
- For example:
- a. All structural deficiencies need to be addressed.
 - 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.
3. Handicap requirements
- For example:
- a. ADA provisions shall be met through program accessible methods.
 - b. Provide handicap toilet stalls with grab bars.
4. Roofing
- Replace or repair:
- a. leaking
 - b. damaged
 - c. inadequate moisture barriers
 - d. inadequate insulation
 - e. inadequate drainage
 - f. flashings and accessories
5. All playground equipment and grounds must meet the standards set forth in the "Handbook for Public Playground Safety"

PRIORITY II

A. 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:

- 6. Security
 - a. All exits must be capable of being locked from the exterior during occupancy.
- 7. Plumbing / Water Supply
 - a. If the quantity of plumbing fixtures does not meet the applicable Plumbing Code, add as required.

- b. All potable water piping shall be safe, sanitary, and in good working condition.
 - c. If there are no back-flow preventors, add to system.
 - d. Replace cracked or damaged fixtures.
 - e. Test for the presence of lead.
 - f. If well is used for potable water, determine if arsenic contamination is an issue.
 - g. Water supply (hot and/or cold) to the lavatories, sinks, and drinking fountains shall have angle stops with loose key handles.
 - h. Gas supply to science rooms shall have an emergency shutoff valve available to the teacher with a manual reset.
 - i. Domestic water heater system must maintain 110 degree water to sinks and showers; 140 degree water to kitchen sink; and 180 degree water for ware washing.
8. Heating / Ventilation /Air conditioning systems
- a. Systems which are not compliant with applicable building standards, applicable Mechanical Code and all applicable local, state, and national codes; shall be updated. They should have a long-term life expectancy.
9. 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.
10. Windows/Doors
- a. Replace and repair doors and windows that do not perform adequately and allow unacceptable infiltration.
11. Parking
- a. Adequate parking, egress, and ingress should be addressed during major remodeling.

PRIORITY III

- A. 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:

12. 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 Department of Health.
- c. Replace all malfunctioning window hardware.
- d. Replace all wood exterior doors.
- e. Interior doors to have lever handles.

PRIORITY IV

- A. 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:

13. Program Enhancements

- a. Change walls to reconfigure space
- b. Add or replace features such as casework, shelving, marker boards, etc.

This document shall be reviewed annually by the Building Services Department and Board of Education.

****End of Document****

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