

SECTION 423 STATE REQUIREMENTS FOR EDUCATIONAL FACILITIES

423.1 Scope: Public educational facilities.

Public educational facilities shall comply with the Florida Building Code and the Uniform Fire Safety Standards as adopted by the State Fire Marshal. These are minimum standards; boards may impose more restrictive requirements. Additional requirements for public educational facilities in Florida, including public schools and public community/junior colleges, are found in these standards.

Note: Other administrative and programmatic provisions may apply. See Department of Education Rule 6-2 and Chapter 1013, Florida Statutes.

423.2 Public schools and community colleges general requirements.

423.2.1 Owner.

Each school board and community college board of trustees is deemed to be the owner of facilities within its respective jurisdiction. Boards shall provide for enforcement of the *Florida Building Code* and the *Uniform Fire Safety Standards* as adopted by the State Fire Marshal, including standards for health, sanitation, and others as required by law.

423.2.2 Exemption from local requirements.

All public educational and ancillary plants constructed by a school board or a community college board are exempt from all other state, county, district, municipal, or local building codes, interpretations, building permits, and assessments of fees for building permits, ordinances, road closures, and impact fees or service availability fees as provided in Section 1013.37(1)(a), Florida Statutes.

423.3 Code enforcement.

423.3.1 School boards and community college boards.

Section 553.80(6), Florida Statutes provides options for plan review services and inspections by school boards and community college boards.

423.3.2 Owner review and inspection.

A school board or community college board which undertakes the construction, remodeling, renovation, lease, or lease-purchase of any educational plant or ancillary facility, or day labor project, regardless of cost or fund source, shall review construction documents as required by law in Section 1013.38, Florida Statutes and Section 553.80(6), Florida Statutes and shall ensure compliance with requirements of law, rule, and the *Florida Building Code* and the *Uniform Fire Safety Standards* as adopted by the State Fire Marshal. Section 553.80(6), Florida Statutes states that district school boards and community college boards shall provide for plan review and inspections for their projects. They shall use personnel certified under Part XII of Chapter 468, Florida Statutes to perform the plan reviews and inspections or use one of the options provided in Section 1013.38, Florida Statutes. Under this arrangement, school boards and community college boards are not subject to local government permitting, plan review, and inspection fees.

423.3.3 Local government review and inspection.

As an option to the owner providing plan review and inspection services, school boards and community college boards may use local government code enforcement offices who will not charge fees more than the actual labor and administrative costs for the plan review and inspections. Local government code enforcement offices shall expedite permitting. Any action by local government not in compliance with Section 553.80(6), Florida Statutes may be appealed to the Florida Building Commission, which may suspend the authority of that local government to enforce the *Florida Building Code* and the *Uniform Fire Safety Standards* as adopted by the State Fire Marshal on the facilities of school boards and community college boards.

423.3.4 Other regulatory agencies.

Boards shall coordinate the planning of projects with state and regional regulatory and permitting agencies, as applicable. Other state or local agencies may inspect new construction or existing facilities when required by law; however, such inspections shall be in conformance with the code as modified by this section.

423.3.5 Day labor projects.

Any one construction project estimated to cost \$200,000 or less where bonafide board employees or contracted labor provide the work. Day labor projects are subject to the same *Florida Building Code* and the *Uniform Fire Safety Standards* as adopted by the State Fire Marshal as new construction.

423.3.6 Routine maintenance.

Maintenance projects are subject to the same *Florida Building Code* and *Uniform Fire Safety Standards* as adopted by the State Fire Marshal as new construction. Chapter 489, Florida Statutes, exempts boards from the use of a licensed general contractor for projects up to \$200,000 where bonafide board employees provide the work. maintenance projects estimated to cost more than \$200,000 and which include construction, renovation and/or remodeling, shall be reviewed for compliance with the code.

423.3.7 Certificate of occupancy.

New buildings, additions, renovations, and remodeling shall not be occupied until the building has received a certificate of occupancy for compliance with codes that were in effect on the date of permit application.

423.3.8 Reuse and prototype plans shall be code updated with each new project.

423.4 Reference documents.

School Boards and Community College Boards of Trustees. In addition to complying with the *Florida Building Code* and the *Uniform Fire Safety Standards* as adopted by the State Fire Marshal, and other adopted standards and this section, public educational facilities and sites shall comply with applicable federal and state laws and rules.

423.4.1 Rule 6-2 [State Requirements for Educational Facilities (SREF)].

A Florida Department of Education document which includes required design standards, standards for rehabilitation of historical resources, capital outlay project process requirements, and various agencies having jurisdiction during project planning and construction.

423.4.2 FEMA.

Federal Emergency management Agency. Rules and Regulations 44 CFR, Parts 59 and 60, Revised as of October 1, 1995. In Flood Zones A1 through A30, AE, AH, and AO (100-year flood plain) the finished floor at the lowest entry level shall be a minimum 1 foot (305 mm) above the base flood elevation.

423.4.3 Florida statutes and state rules.

Including, but not limited to, Chapters 1013, 240, 255, 468, 471, 481, 489, 553, 633, and Section 287.055, Florida Statutes, and various state rules as applicable to specific projects.

423.4.4 Accessibility requirements for children's environments.

U.S. Department of Justice and the U.S. Architectural and Transportation Barriers Compliance Board.

423.4.5 Handbook for public playground safety.

Playgrounds and equipment shall be designed and installed using the *Handbook for Public Playground Safety* by the U. S. Consumer Product Safety Commission, and the *ASTM/CPSC Playground Audit Guide* as applicable.

423.4.6 ANSI Z53.1.

American National Standard Safety Color Code for marking Physical Hazards , is used in shops where machinery requires marking and safety zones.

423.4.7 ASCE 7.

American Society of Civil Engineers.

423.4.8 *Life Cycle Cost Guidelines for Materials and Buildings for Florida's Public Educational Facilities* , available from the Department of Education, Bureau of Educational Facilities shall be considered.

423.5 Definitions.

423.5.1 "Assembly" occupancies are buildings or portions of buildings used for gatherings of 50 or more persons, such as auditoriums, gymnasiums, multipurpose rooms, classrooms and labs, cafeterias, stadiums, media centers and interior courtyards. Assembly occupancies include adjacent and related spaces to the main seating area, such as stages, dressing rooms, workshops, lobbies, rest rooms, locker rooms, and store rooms. School board and community college facilities shall follow the requirements of Uniform Fire Safety Standards as adopted by the State Fire Marshal for assembly spaces.

423.5.2 "Board" means a district school board and a community college board of trustees.

423.5.3 "Boiler" is a fuel-fired, heat-producing appliance with a minimum input capacity of (60,000) Btu per hour and intended to supply hot water or steam. Boilers and the inspection of boilers shall comply with the Boiler Safety Act of 1987.

423.5.4 "Certificate of occupancy" is documentation issued by an authority having jurisdiction which indicates inspection and approval of completion of a construction project pursuant to the requirements of Florida law.

423.5.5 "Courtyard" is a court or enclosure adjacent to, or surrounded by, a building(s) and/or walls.

423.5.5.1 "Exterior courtyard" is a courtyard which is not roofed, has a minimum width of 40 feet (1219 mm), and has an opening a minimum width of 40 feet (1219 mm), with no obstructions, on at least one end. An exterior courtyard may be considered exterior

space and used for exiting of adjacent spaces. For an exterior courtyard with an opening between 40 feet (1219 mm) and 60 feet wide (18 288 mm), the walls and wall openings must meet the requirements of *Florida Building Code, Building Tables 601 and 602* and the maximum travel to the courtyard opening shall not exceed 150 feet (45,720 mm) from any point within the courtyard.

423.5.5.2 “Enclosed courtyard” is a courtyard which is not roofed by more than 50 percent of the courtyard area and which is substantially surrounded by a building(s) on two sides or more and each opening to the exterior is less than 40 feet (1219 mm) in width. The courtyard area shall be calculated for maximum occupancy as an assembly space and the number and size of remotely located exits shall be calculated for the maximum possible load. The maximum possible load is the greater of the calculated capacity of the courtyard or the load imposed by the surrounding spaces. An enclosed courtyard may be used as a component of exit access provided that the walls and wall openings meet the requirements of *Florida Building Code, Building Tables 601 and 602* and the maximum travel to the exit discharge does not exceed 150 feet (45 720 mm) from any point within the enclosed courtyard. An enclosed courtyard cannot serve as the exterior for exiting or for emergency rescue openings.

423.5.5.3 “Roofed courtyard” is a courtyard which is roofed by more than 50 percent of the courtyard area in any manner. Courtyards may be used for assembly spaces and may not be used as a component of exiting from adjacent spaces.

423.5.6 “Facility” is additionally defined as follows:

423.5.6.1 “Ancillary facility” is a building or other facility necessary to provide district-wide support services, such as an energy plant, bus garage, warehouse, maintenance building, or administrative building.

423.5.6.2 “Ancillary plant” is buildings, site, and site improvements necessary to provide district-wide vehicle maintenance, storage, building maintenance activities, or administrative functions necessary to provide support services to an educational program.

423.5.6.3 “Auxiliary facility” consists of the support spaces located at educational facilities and plants which do not contain student stations but are used by students, such as libraries, administrative offices, and cafeterias.

423.5.6.4 “Educational facility” consists of buildings and equipment, structures, and special educational use areas that are built, installed, or established to serve primarily the educational purposes and secondarily the social and recreational purposes of the community.

423.5.6.5 “Educational plant” comprises the educational facilities, site, and site improvements necessary to accommodate students, faculty, administrators, staff, and the activities of the educational program.

423.5.6.6 “Existing facility” is a facility owned, rented or leased.

423.5.6.7 “Leased facility” is a facility not owned, but contracted for use.

423.5.6.8 “Permanent facility” is a facility designed for a fixed location.

423.5.6.9 “Relocatable/portable facility” is a building which is designed with the capability of being moved to a new location.

423.5.6.10 “Modular facility” is a structure which, when combined with other modules and/or demountable roof and/or wall sections, forms a complete building. This facility may be relocatable.

423.5.7 “Maintenance and repair” is the upkeep of educational and ancillary plants including, but not limited to, roof or roofing replacement, short of complete replacement of membrane or structure; repainting of interior or exterior surfaces; resurfacing of floors; repair or replacement of glass and hardware; repair or replacement of electrical and plumbing fixtures; repair of furniture and equipment; replacement of system equipment

with equivalent items meeting current code requirements providing that the equipment does not place a greater demand on utilities, structural requirements are not increased, and the equipment does not adversely affect the function of life safety systems; traffic control devices and signage; and repair or resurfacing of parking lots, roads, and walkways. Does not include new construction, remodeling, or renovation, except as noted above.

423.5.8 “New construction” is any construction of a building or unit of a building in which the entire work is new. An addition connected to an existing building is considered new construction.

423.5.9 “Open plan building” is any building which does not have corridors defined by permanent walls and is entirely open or divided by partitions which may be easily rearranged.

423.5.10 “Open plan instructional space” is an arrangement of two or more class areas with no permanent partitions or wall separations.

423.5.11 “Owner” of facilities within a respective jurisdiction consists of each school board and community college board of trustees is deemed to be the owner of facilities within its respective jurisdiction.

423.5.12 “Permit” for construction is documentation issued by an authority having jurisdiction which indicates approval of construction plans prepared pursuant to the requirements of Florida law.

423.5.13 “Remodeling” is the changing of existing facilities by rearrangement of space and/or change of use. Only that portion of the building being remodeled must be brought into compliance with the *Florida Building Code* and *Uniform Fire Safety Standards* as adopted by the State Fire Marshal unless the remodeling adversely impacts the existing life safety systems of the building.

423.5.14 “Renovation” is the rejuvenating or upgrading of existing facilities by installation or replacement of materials and equipment. The use and occupancy of the spaces remain the same. Only that portion of the building being renovated must be brought into compliance with the *Florida Building Code* and *Uniform Fire Safety Standards* as adopted by the State Fire Marshal unless the renovation adversely impacts the existing life safety systems of the building.

423.5.15 “Separate atmosphere” is the individual volumes of air in a building which are divided by smoke proof barriers to limit contamination of the air by smoke and fumes during a fire.

423.5.16 “Separate building” is a structure separated from other buildings by 60 feet (18 288 mm) or more, or by a 4-hour fire wall.

423.5.17 “Student-occupied space” is any area planned primarily for use by six or more students.

423.6 Administration of public education projects.

423.6.1 Occupancy during construction.

School board and community college board facilities, or portions of facilities, shall not be occupied during construction unless exits, fire detection and early warning systems, fire protection, and safety barriers are continuously maintained and clearly marked at all times. Construction on an occupied school board site shall be separated from students and staff by secure barriers. Prior to issuance of the notice to proceed, a safety plan shall be provided by the contractor which clearly delineates areas for construction, safety barriers, exits, construction traffic during the various phases of the project and when conditions change. Where heavy machinery, as is used for earth moving or scraping, is required to work on a school board’s occupied site, the work shall be separated from

occupants by secure double barriers with a distance of 10 feet (3048 mm) in between. New construction, remodeling or renovations in existing facilities shall not reduce the means of egress below the requirements for new buildings; safe means of egress from a student-occupied space may be accomplished as authorized by NFPA 101. New construction (additions) shall not block or reduce safe means of egress.

423.6.2 Contractor toxic substance safety precautions.

When hazardous chemicals as defined by 29 CFR 1910.1200, OSHA Hazard Communication Standard are to be used during the maintenance, renovation, remodeling, or addition to an existing facility, the contractor shall notify the administrator in writing at least three working days before any hazardous chemical is used. The notice shall indicate the name of each of the hazardous chemicals to be used, where and when they will be used, and a copy of a Material Safety Data Sheet (MSDS) for each hazardous chemical. The contractor shall comply with the safety precautions and handling instructions set forth in the MSDS. Copies of hazardous waste manifests documenting disposal shall be provided to the facility's administrator who will notify occupants of the anticipated presence of toxic substances during the maintenance, renovation, remodeling, or addition to an existing facility.

423.6.3 Flammable or explosive substances.

No flammable or explosive substances or equipment shall be introduced during a remodeling or renovation project in a facility of normally low or ordinary hazard classification while the building is occupied.

423.7 Life safety.

423.7.1 Separate exits.

In assembly occupancies, each required exit must exit into a separate atmosphere or to the exterior, to be considered as a separate exit.

423.7.2 Exit access.

Exit access shall not be through a toilet room, storage room, or similar space, or any space subject to being locked.

423.7.3 Location of fire extinguishers and blankets.

Fire extinguishers may be located inside student-occupied spaces provided they are placed adjacent to the primary exit door, and the room door remains unlocked when the facility is occupied, and a permanently affixed sign, with a red background and white letters, reading "FIRE EXTINGUISHER INSIDE" is placed on the outside adjacent to the door. Fire extinguisher cabinets shall not be locked. Fire blankets shall be located in each laboratory and each shop where a fire hazard may exist. Fire extinguishers and fire blankets shall be readily accessible and suitable for the hazard present and shall not be obstructed or obscured from view. Extinguishers and blankets shall be on hangers or brackets, shelves, or cabinets so that the top of the extinguisher or blanket is not more than 54 inches (1318 mm) above finish floor (AFF) and complies with state and federal accessibility requirements. All extinguishers shall be installed and maintained in accordance with NFPA. Extinguishers shall remain fully charged and operable at all times and have a current tag to indicate compliance.

423.7.4 Common fire alarm.

Buildings within 60 feet (18 288 mm) of each other shall have a common fire alarm system. Emergency shelters shall have the fire alarm panel located in the space identified as the shelter manager's office.

423.7.5 Fire alarm sending stations.

Sending stations may be located inside student-occupied spaces, adjacent to the primary exit door only if the door to the occupied space is unlocked at all times while the facility is occupied. When located inside a student occupied space, a permanently affixed sign reading "FIRE ALARM PULL STATION INSIDE" shall be placed outside that space adjacent to the door. This sign shall have a red background with white letters. Sending stations shall be mounted to meet accessibility requirements.

423.7.6 Automatic shut off.

The fire alarm system shall shut off gas and fuel oil supplies which serve student-occupied spaces or pass through such spaces. The fire alarm system shall not shut off gas supplies which serve emergency power sources. Kitchen gas supplies shall be shut off by an automatic fire extinguishing system. The shutoff valve shall be located exterior to the building. The shutoff valve shall have a manual reset.

423.7.7 Unoccupied rooms and concealed spaces.

Rooms or spaces for storage, custodial closets, mechanical rooms, spaces under stages with wood structures and other unoccupied or unsupervised spaces in a building shall have automatic smoke or heat detector devices installed. Any concealed space with exposed materials having a flame spread rating greater than Class A, including crawl spaces under floors, interstitial spaces between ceiling and floor or roof above and attic spaces, shall be equipped with heat detector devices. Smoke and heat detector devices shall be installed in accordance with NFPA 72. In fully sprinklered buildings, heat detectors are not required. Smoke detectors, where required by the *Florida Fire Prevention Code*, must remain.

423.7.8 Boiler rooms.

Each boiler room shall be separated from the remainder of the building by one hour fire rated construction or shall be separate from other buildings by 60 feet (18 288 mm), and shall have an out-swinging door opening directly to the exterior. A fire door swinging into the boiler room shall also be provided for any opening into the interior of the building. There shall be no opening into any corridor or area designed for use by students.

423.8 General requirements for new construction, additions, renovation, and remodeling.

423.8.1 Codes and standards.

Educational facilities owned by school boards and community college boards shall meet the construction requirements of the *Florida Building Code* and the *Uniform Fire Safety Standards* as adopted by the State Fire Marshal state and federal laws and rules, and this section for Florida's public educational facilities for new construction, remodeling and renovation of existing facilities. This is a minimum standard; boards may impose more restrictive safety and level of quality standards for educational, auxiliary, and ancillary facilities under their jurisdiction, provided they meet or exceed these minimum requirements.

423.8.1.1 Educational occupancy.

School board educational facility projects whether owned, lease-purchased or leased shall comply with the educational occupancy and assembly occupancy portions of the above referenced codes as applicable, except where in conflict with this section. The support spaces such as media centers, administrative offices and cafeterias and kitchens located within educational facilities are not separate occupancies.

423.8.1.2 Business occupancy.

Community college board educational facility projects whether owned, lease-purchased or leased shall comply with the business occupancy and the assembly occupancy of the above referenced codes as applicable, except where in conflict with this section.

423.8.1.3 Ancillary facility.

School board and community college board ancillary facilities such as warehouses or maintenance buildings, shall use the applicable occupancy section of the *Florida Building Code* and the *Uniform Fire Safety Standards* as adopted by the State Fire Marshal. Ancillary facilities on educational plant sites shall be separated from the educational facility as required by code.

423.8.2 Space standards.

School board and community college board facility sizes shall use standards in the “Size of Space and Occupant Design Criteria table found in the Department of Education document, “State Requirements for Educational Facilities (SREF).” Exiting from occupied spaces shall comply with Table [1004.1.2](#) of the *Florida Building Code, Building*

423.8.3 Construction type.

School board and community college buildings including auxiliary, ancillary and vocational facilities shall comply with the following:

423.8.3.1 Noncombustible Type I, II or IV.

The minimum construction type for one- and two-story public educational facilities shall be noncombustible Type I, II or IV construction or better.

423.8.3.2 Type I.

Facilities three stories or more shall be Type I construction.

423.8.3.3 Type IV.

When Type IV construction is used, wood shall be exposed and not covered by ceilings or other construction.

423.8.3.4 Exceptions to types of construction:

1. Covered walkways open on all sides may be Type V construction.
2. Single story dugouts, press boxes, concession stands, related public toilet rooms, detached covered play areas, and nonflammable storage buildings that are detached from the main educational facility by at least 60 feet (1829 mm), may be Type V construction.

423.8.4 Standards for remodeling and/or renovation projects.

Portions of buildings being remodeled and/or renovated shall be brought into compliance with current required *Florida Building Code* and the *Uniform Fire Safety Standards* as

adopted by the State Fire Marshal as required by the plan review authority in its best judgment.

423.8.5 Leased facilities.

Leased facilities shall be brought into compliance with applicable occupancy requirements of the *Florida Building Code* and the *Uniform Fire Safety Standards* as adopted by the State Fire Marshal prior to occupancy.

423.8.6 Asbestos prohibited.

The federal Asbestos Hazard Emergency Response Act, (AHERA) 40 CFR, Part 763, as revised July 1, 1995, prohibits the use of any asbestos containing materials in any public education construction project and requires certification of same by the architect of record.

423.8.7 Life cycle cost guidelines for materials and building systems.

An analysis shall be included, as required by Section 1013.37(1), Florida Statutes, which evaluates building materials and systems, life cycle costs for maintenance, custodial, operating, and life expectancy against initial costs, as described in Section 1013(1)(e)4, Florida Statutes. Standards for evaluation of materials are available from the department in a publication entitled *Life Cycle Cost Guidelines for materials and Building Systems for Florida's Public Educational Facilities* .

423.8.8 Safe school design.

School boards should design educational facilities and sites including pre-K through 12, vocational and community colleges to enhance security and reduce vandalism through the use of "safe school design" principles. Safe school design strategies are available from DOE/educational facilities and include but are not limited to the following:

423.8.8.1 Natural access and control of schools and campuses.

423.8.8.2 Natural surveillance of schools and campuses both from within the facility and from adjacent streets by removing obstructions or trimming shrubbery.

423.8.8.3 School and campus territorial integrity; securing courtyards, site lighting, building lighting.

423.8.8.4 Audio and motion detection systems covering ground floor doors, stairwells, offices and areas where expensive equipment is stored.

423.8.8.5 Designs which will promote the prevention of school crime and violence. Exterior architectural features which do not allow footholds or handholds on exterior walls, tamperproof doors and locks, nonbreakable glass or shelter window protection system; also landscaping and tree placement should be designed so they do not provide access to roofs by unauthorized persons. Sections of schools commonly used after hours should be separated by doors or other devices from adjacent areas to prevent unauthorized access. Install locks on roof hatches; apply slippery finishes to exterior pipes.

423.8.8.6 Exterior stairs, balconies, ramps, and upper level corridors around the perimeter of buildings should have open-type handrails or other architectural features to allow surveillance.

423.8.8.7 Open areas, such as plazas, the building's main entrance, parking lots, and bicycle compounds should be designed so they are visible by workers at workstations inside the buildings.

423.9 Structural design.

423.9.1 Load importance factor.

Structural design shall comply with code requirements and wind loads as stipulated by the Florida Building Code and the Uniform Fire Safety Standards as adopted by the State Fire Marshal. Design shall be based on ASCE 7, with a wind load importance factor for educational facilities of 1.15.

423.10 Site requirements.

423.10.1 Fencing.

Fencing for school board educational plants shall be of a material which is nonflammable, safe, durable, and low maintenance, provides structural integrity, strength and aesthetics appropriate for the intended location. Fence heights shall be in compliance with local zoning regulations. Access shall be provided for maintenance machinery. Prohibited materials for nonagricultural educational plants include razor wire, barbed wire and electrically charged systems.

423.10.1.1 Required locations.

Fencing is required to separate students from potential harm, and shall be provided in the following locations:

423.10.1.1.1 Kindergarten through grade 12.

Exposed mechanical, plumbing, gas, or electrical equipment located on ground level.

423.10.1.1.2 Kindergarten through grade 5.

Special hazards as identified by the authority having jurisdiction including retention ponds whose permanent water depth or whose water depth over a 24-hour period exceeds 1 foot (305 mm), deep drainage ditches, canals, highways, play fields adjacent to roadways.

423.10.1.1.3 Kindergarten through grade 12.

All child care and kindergarten play areas.

423.10.2 Walks, roads, drives, and parking areas.

Walks, roads, drives, and parking areas on educational and ancillary sites shall be paved. Roads, drives, and parking areas shall be in compliance with Department of Transportation (DOT) road specifications and striped in compliance with DOT paint specifications. All paved areas shall have positive drainage.

423.10.2.1 Covered walks.

All buildings in K-12 educational facilities shall be connected by paved walks and accessible under continuous roof cover. New relocatable classroom buildings shall be connected to permanent buildings by paved covered walks where applicable. Roofs for covered walks shall extend 1 foot (305 mm) beyond each side of the designated walkway width. Gutters or other water funneling devices shall prevent storm water from pouring onto or draining across walks.

423.10.2.2 Accessible walks and bridges.

Accessible walks shall connect building entrance(s) to accessible parking, public transportation stops, public streets, sidewalks, loading and drop-off zones, and other facilities within the site as required by the accessibility standards. School board sites

where educational plants are separated by highways shall be connected by overhead pedestrian bridges.

423.10.2.3 Drainage.

Soil, grass, and planting beds shall provide positive drainage away from sidewalks, but shall not fall away at more than a 3-percent gradient slope for a minimum distance of 5 feet (1524 mm) from the edge. The location of all drains, grates, drop inlets, catch basins, other drainage elements and curb cuts shall be out of the main flow of pedestrian traffic.

423.10.2.4 Vertical drops.

Walls, railings, or other physical barriers which are at least a minimum 12 inches (305 mm) in height, shall define and protect any vertical drop between joining or abutting surfaces of more than 6 inches (152 mm) but less than 18 inches (457 mm) in height. Any vertical drop of 18 inches (457 mm) or more shall be protected by a wall or guardrail a minimum of 42 inches (1067 mm) in height.

423.10.2.5 Roads and streets.

Educational and ancillary site access shall consist of a primary road and another means of access to be used in the event the primary road is blocked. Stabilized wide shoulders of the primary road, unobstructed by landscaping, planters, light fixtures, poles, benches, etc., which allow a third lane of traffic, may satisfy the requirement for the other means of access. Driveways shall not completely encircle a school plant, to allow student access to play areas without crossing roads; vehicular and pedestrian traffic shall not cross each other on the site; bus driveways and parent pick-up areas shall be separated.

423.10.2.6 Bus drives.

Bus drives on educational sites shall be designed so that buses do not have to back up. The minimum width shall be 24 feet (7315 mm) for two-lane traffic. The turning radius on educational and ancillary sites and for turning off public access streets shall be as follows: one-way traffic, 60 feet (18 288 mm) minimum measured to the outside curb or edge of the traffic lane; two-way traffic, 60 feet (18 288 mm) minimum measured to the centerline of the road.

423.10.2.7 Vehicle parking areas.

Vehicle parking areas shall comply with minimum parking space requirements in this section. Except for parking space requirements to meet federal and state accessibility laws, where alternate transportation or parking arrangements are available the parking area requirements may be reduced from these standards if sufficient justification documentation is provided and if the review authority approves the reduction based on the justification. Overflow parking areas may utilize alternative parking surfaces which facilitate water absorption rather than runoff when approved for use by the review authority. This requirement usually applies to a percentage of the parking spaces, not all of them.

Exception : Accessible parking spaces shall be hard surface.

423.10.2.8 Minimum parking requirements.

423.10.2.8.1 Faculty and staff.

One space for each member.

423.10.2.8.2 Visitors.

One space for every 100 students.

423.10.2.8.3 Community clinics where provided.

Ten spaces, including one accessible space.

423.10.2.8.4 High schools.

One space for every 10 students in grades 11 and 12.

423.10.2.8.5 Vocational schools.

One space for every two students.

423.10.2.8.6 Community colleges.

One space for every two students.

423.10.2.8.7 Accessible parking.

Parking spaces designated for persons with disabilities shall comply with the ADA, Chapter [11](#) of the *Florida Building Code, Building*, and Section 316.1955, Florida Statutes.

423.10.3 Site lighting required.

Design, construction, and installation of exterior security lighting for educational and ancillary facilities shall be provided for:

423.10.3.1 Auto, bus, and service drives and loading areas.

423.10.3.2 Parking areas.

423.10.3.3 Building perimeter.

423.10.3.4 Covered and connector walks between buildings and between buildings and parking.

423.10.3.5 Lighting for parking areas.

Parking area lighting standards shall be designed to withstand appropriate wind loads. Parking areas shall be illuminated to an average maintained horizontal footcandle, measured at the surface as follows:

423.10.3.5.1 Parking areas—1 footcandle (10 lux).

423.10.3.5.2 Covered and connector walks—1 footcandle (10 lux).

423.10.3.5.3 Entrances/exits —2 footcandles (20 lux).

423.10.3.6 Building exteriors.

Building exteriors, perimeters, and entrances may be illuminated to the minimum number of footcandles, measured at the surface with a suggested uniformity ratio of 2:1 as follows:

423.10.3.6.1 Entrances—5 footcandles (50 lux).

423.10.3.6.2 Building surrounds—1 footcandle (10 lux).

423.10.3.7 Shielding.

Exterior lighting shall be shielded from adjacent properties.

423.10.4 Building setbacks.

Building setbacks from the property line, including relocatables, shall, at a minimum, be 25 feet (7620 mm) where site size permits or shall comply with local setback requirements if less than 25 feet (7620 mm).

423.10.5 School board playgrounds, equipment, and athletic fields.

Playgrounds, equipment, and athletic fields shall be accessible, compatible with the educational facility served and shall comply with the following:

423.10.5.1 Kindergarten play areas shall be separated from other play areas, fenced, and shall be directly accessed from the kindergarten classrooms.

423.10.5.2 Playgrounds and equipment shall be designed and installed using the *Handbook for Public Playground Safety* by the U.S. Consumer Product Safety Commission, and the *ASTM/CPSC Playground Audit Guide* as applicable, resulting in facilities which are safe, structurally sound, verminproof, and do not have jagged or sharp projections.

423.10.5.3 Direct access from the school buildings shall be provided to play areas and athletic fields without crossing public roads, on-site traffic lanes, and parking lots.

423.10.5.4 Related facilities such as toilets, concessions, storage, shower and locker rooms, bleachers, press boxes, observation platforms, scoreboards, and dugouts shall be designed to meet code requirements and the occupant capacity anticipated for the program.

423.10.6 Exterior signage.

All permanent and free-standing exterior signs shall be designed to withstand appropriate wind loads. Illuminated signs shall comply with the electrical and installation requirements of the *Florida Building Code* and *Uniform Fire Safety Standards* as adopted by the State Fire Marshal.

423.10.6.1 Site signage shall not create visual barriers at entrances, sidewalks, roads or road intersections.

423.10.6.2 Accessible routes, including parking, building directories, building identification, and accessible entrances shall be marked by exterior signage in conformance with federal and state accessibility laws.

423.10.7 Landscaping.

Refer to Section 1013.64(5), Florida Statutes, for school board and community college requirements. Xeriscape is defined in Section 373.185, Florida Statutes.

423.10.8 Transmission line right-of-way.

Buildings, play areas, and common use areas shall not be located within a high-voltage power transmission line right-of-way.

423.10.9 School site master plan.

New schools planned after the effective date of these standards shall include, as applicable: facility design capacity; floodplain locations; covered accessible walks; infrastructure locations for, and extensions of, technology, telephone, electricity, fire alarm; and, where applicable, water and sewer utilities, and relocatables.

423.11 Wood: fire-retardant treated wood (FRTW).

FRTW shall not be used in permanent educational facilities. Only FRTW which does not contain ammonium phosphates, sulfates, or halides, may be used in roof structures of

noncombustible Type III ancillary facilities as allowed by the Florida Building Code, but only under the following conditions:

423.11.1 After treatment, all fire-retardant treated lumber shall be kiln dried to a moisture content of nineteen 19 percent or less, and all plywood to 15 percent or less.

423.11.2 Fire-retardant treated plywood and lumber shall have design values and span ratings based on strength testing after exposure to elevated temperatures and moisture.

423.11.3 Inspection access panels shall be provided for annual inspection of the condition of the structure and the connectors.

423.11.4 Evidence of compliance shall be provided.

423.11.5 Interior applications.

Interior Type A FRTW shall be used in enclosed interior applications only, including roof sheathing. Interior FRTW shall not be used in damp or wet conditions or in contact with concrete slabs or soil and must be stored in a dry place during construction. Interior fire-retardant treated lumber and plywood shall have a flame spread of 25 or less when tested in accordance with ASTM E 84, *Standard Test method for Surface Burning Characteristics of Building Materials* .

423.11.6 Exterior applications.

All fire-retardant treated lumber and plywood intended for exterior use shall be pressure impregnated with an American Wood Preserver's Association (AWPA) product. Exterior type fire-retardant treatment. Exterior fire-retardant treated lumber and plywood shall have a flame spread of 25 or less when tested in accordance with ASTM E 84, *Standard Test method for Surface Burning Characteristics of Building Materials* .

423.11.7 Wood studs.

Interior nonload-bearing wood studs or partitions shall not be used in permanent educational and auxiliary facilities or relocatable buildings.

Exception : Historic buildings to maintain the fabric of the historic character of the building.

423.12 Roofing.

423.12.1 Class A materials.

All roofing materials shall be labeled Class A per ASTM E108 and shall be certified by a nationally recognized independent testing laboratory. All roofing systems shall be installed within the limitations of the test procedure for surfacing, deck cross slope, and combustibility.

423.12.2 Insulation and moisture protection.

Insulation, moisture protection, roofing, thermal requirements, fireproofing and firestopping shall be designed and constructed in compliance with the the *Florida Building Code* and *Uniform Fire Safety Standards* as adopted by the State Fire Marshal. Cellulose insulation may only be used if it is treated with fire-retardant borate based chemicals; the contractor shall retain bag labels on site for review by building inspector.

423.12.3 Phased installation prohibited.

All new installed materials shall be sealed from moisture penetration at the end of each day. The contractor shall provide the architect/engineer (A/E) of record a "final statement of compliance" for the board.

423.12.4 Manufacturer's one-year inspection.

The roof shall be inspected by the manufacturer's representative within one year of acceptance by the board.

423.13 Doors and windows.

423.13.1 Doors.

All spaces with an occupant load of six or more students, regardless of use, shall have a door opening directly to the exterior, or as required in the *Uniform Fire Safety Standards* as adopted by the State Fire Marshal, in buildings of three stories or less shall have a rescue window opening directly to the exterior, or shall be fully sprinklered. All doors and gates from spaces with an occupant load of six or more students, regardless of use or location, shall swing in the direction of exit travel, shall be of the side hinged type, and shall always be operable from the inside by a single operation and without a key.

423.13.1.1 Doors for steam rooms, locker rooms, shower rooms and group toilet rooms shall swing in the direction of exit travel, and shall always be operable for exiting from the inside.

423.13.1.2 No mirrors, draperies, curtains, equipment, furnishings, decorations, or other objects which may confuse, obstruct, or conceal the exit or the direction of exit shall be placed to obstruct a means of egress.

423.13.2 Recessed.

Doors when fully opened shall not extend into the required exit width of corridors, except for door thickness and required hardware. Doors may either be recessed and hinged to swing 90 degrees, or if flush with corridor wall shall contain a view panel and be hinged to swing 180 degrees.

423.13.3 Special function doors.

Special function doors, including balanced doors and overhead doors, shall not be used in a means of egress.

423.13.4 Overhead and sliding security grilles.

Security grilles shall have an adjacent side-hinged door swinging in the direction of exit and readily opened from the inside.

423.13.5 Gates.

Gates used to secure buildings or used for egress shall be side-hinged and readily opened from the side from which egress is to be made without the use of a key or special tool, or shall have a adjacent side hinged door, or doors as required for occupant load, swinging in the direction of exit and readily opened from the inside without a key.

423.13.6 Hardware.

Doors and gates shall be equipped with hardware which will allow egress at all times without assistance. Projecting hardware on doors swinging into a means of egress is not considered an obstruction if the door opens flat against the wall. No padlock, chain, hasp, lock, deadbolt, or other device shall be installed at any time on any door used for exiting. Doors which by code require closers and other doors subject to wind exposure shall be equipped with closers to prevent slamming and uncontrolled opening. All doors opening into smoke-tight exit access corridors shall be self-closing or automatic closing.

423.13.7 Safety glazing: Panels and storefronts.

Glazed panels within 48 inches (1219 mm) of a door shall be tempered glass, safety glass, or in fire-rated assemblies impact-resistant fire-rated glass, excluding transoms or vertical panels above 6 feet 8 inches (2031 mm).

423.13.7.1 Storefronts shall use tempered or safety glass for all glazing below door head height.

423.13.7.2 Large glass panels shall be subdivided by a built-in horizontal member or a permanent chair rail not less than 1½ inches (38 mm) in width, located between 24 and 36 inches (610 and 914 mm) above the floor.

423.13.7.3 Glazed panels beginning 18 inches (450 mm) or less from the floor, greater than 9 square feet (.83 m²) in area, with a walking surface within 36 inches (914 mm) of the panel, shall be tempered or safety glass.

423.13.8 Windows.

Natural light and ventilation requirements for new construction shall be satisfied by windows with operable glazing, providing a net free open area equivalent to 5 percent of the floor area, in all classrooms on the perimeter of buildings, where required by Chapter 1013, Florida Statutes. Auxiliary spaces, music rooms, gyms, locker and shower facilities, laboratories requiring special climate control, and large group instructional spaces having a capacity of more than 100 persons need not have operable windows for the purpose of providing natural light and ventilation. Emergency access, emergency rescue, and secondary means of egress windows may be included in the calculation to comply with this requirement. Projecting and awning windows shall not be located below door head height if in, or adjacent to, a corridor or walkway. If a security/storm screen or grille is installed on the outside of an emergency access, rescue or egress window assembly then that security/storm screen or grille together with the emergency rescue window assembly shall be operable from the inside by a single operation without the use of tools to allow for exit under emergency conditions. The emergency rescue window shall be identified by signage, and the release device shall be readily identifiable.

423.14 Special safety requirements.

423.14.1 Master control switch.

In addition to the regular main supply cut-off, each laboratory type space (such as biology, industrial chemistry, physics, home economics, and electronics labs) equipped with unprotected gas cocks, compressed air valves, water or electric services which are easily accessible to students, shall have master control valves or switches with permanently attached handles, located and accessible within 15 feet (4572 mm) of the instructor's station or adjacent to the door within that space to allow for emergency cut-off of services. The cut-offs shall be in a nonlockable place and the location and operation shall be clearly labeled. Valves shall completely shut off with a one-quarter turn. Computer labs are exempted from this requirement. (Also, see "Emergency shut off switches," and "Emergency disconnects" requirements under "Electrical.")

423.14.2 Interior signage.

Signage is required in educational and ancillary facilities. Design, construction, installation, and location of interior signage and graphics shall comply with the *Florida Building Code* and the *Uniform Fire Safety Standards* as adopted by the State Fire Marshal and the following:

423.14.2.1 Emergency rescue windows:

Windows for emergency rescue shall comply with NFPA 101, shall be operable from the inside by a single operation, and shall be labeled "EMERGENCY RESCUE-KEEP AREA CLEAR."

423.14.2.2 Maximum capacity signs in each space with a capacity of 50 or more occupants. The signs shall be mounted adjacent to the main entrance door.

423.14.2.3 Room name, room number and, if different, FISH inventory numbers shall be provided for each space.

423.14.2.4 A graphic diagram of primary and emergency evacuation routes shall be posted adjacent to the primary exit door from each space occupied by six or more students. The diagram shall clearly indicate, by contrasting color and number, each route of evacuation.

423.14.2.5 Signs necessary to meet accessibility requirements shall be provided.

423.14.2.6 Hazardous work and storage areas shall be identified by appropriate caution signs.

423.14.3 Other potential hazards.

Uninsulated hot water pipes, window projections, protruding sharp corners, or other potential hazards shall not be installed below 6 feet 8 inches (2031 mm) AFF.

Audio/visual aids in classrooms may be mounted below 6 feet 8 inches (2031 mm) provided they are marked and padded in accordance with accepted safety standards or have permanent cabinets installed below them.

423.14.4 Storage shelving.

Shelving shall not have sharp corners, splinters, or any construction feature that would be hazardous to the occupants. Shelving shall be constructed to carry the loads imposed. Shelving in science, labs, and shop storage rooms, and other places which may contain hazardous materials shall have a ½ inch (12.7 mm) lip on the front edge of each shelf and shall be constructed of noncorrosive material.

423.14.5 Vertical platform lifts and inclined wheelchair lifts.

The following standards are in addition to the other requirements of the *Florida Building Code*, Florida law, and federal requirements:

423.14.5.1 Lifts shall not reduce the width of required means of egress.

423.14.5.2 Lifts shall have shielding devices to protect users from the machinery or other hazards and obstructions.

423.14.5.3 Lifts shall be key operated for attendant operation in all facilities housing kindergarten to grade 8.

423.14.5.4 Inclined wheelchair lifts may be installed in facilities provided:

423.14.5.4.1 The platform is equipped with bidirectional ramp sensing to stop travel if obstructions are encountered.

423.14.5.4.2 Guide rails are smooth and continuous with no sharp edges or obstructions, all drive system components contain safety features for protection of users, and cables and pulling devices are shielded.

423.14.6 Color code machinery.

Working machinery with component parts shall be color-coded per ANSI Z53.1, *American National Standard Safety Color Code for marking Physical Hazards*. Safety zone lines shall be marked on the floor areas surrounding working machinery.

423.14.7 Anchor equipment.

All equipment designed to be permanently mounted shall be securely anchored to its supporting surface.

423.14.8 Provide caution signs.

Hazardous work and storage areas shall be identified by appropriate caution signs.

423.14.9 Interior finishes.**423.14.9.1 Floors.**

Floors in instructional spaces shall be covered with resilient material or carpet. Floors in gymnasium locker rooms, showers, drying areas, toilet rooms, kitchens, scullerys, food storage areas and can wash areas shall be impervious.

423.14.9.2 Walls.

Walls in toilet rooms shall be impervious to a height of at least 4 feet (1219 mm) above the floor. Walls in kitchens, scullerys, can wash areas, shower rooms shall be impervious to a height of at least 6 feet (1829 mm) above the floor. Toilet and shower partitions shall be impervious.

423.14.9.3 Ceilings.

Ceilings in group toilet rooms, kitchens, scullerys, can wash areas, showers and locker rooms shall be impervious.

423.15 Mechanical.**423.15.1 Conceal piping.**

Piping systems for flammable liquids or gases shall not be installed in or above interior corridors or stairwells. Piping (fluid system) shall not be run where students can access the pipes, or in areas such as on roofs where they can be damaged by routine or periodic maintenance activities. The main supply cut-offs for flammable liquids or gases shall shut down upon activation of the fire alarm system.

423.15.2 Return air.

Corridors shall not be used as return air plenums.

423.15.3 Residential equipment.

In home economics instructional spaces, faculty lounges, and similar areas where small residential-type ranges are installed, residential-type hoods mechanically exhausted to the outside shall be used.

423.15.4 Toilet rooms shall be continuously ventilated during building occupancy.

Exception : Individual toilet rooms shall be ventilated continuously during building occupancy or ventilation shall turn off with the light switch and run for at least 10 minutes after the light has been turned off.

423.16 Plumbing.**423.16.1 Standards.**

Educational and ancillary facilities shall be provided with toilets, hand washing facilities, and drinking fountains for all occupants, in ratios and accessible as required by the *Florida Building Code*, Florida law, and federal requirements.

Exception : A single unisex toilet room is allowed where provided in child care and prekindergarten through grade 3 classrooms.

423.16.2 Teacher toilets.

In school board facilities, faculty and staff toilets shall be separate from student toilets.

423.16.3 Public shelter.

Refer to the public shelter design criteria of Section [423.25](#).

423.16.4 Urinals.

Trough urinals shall not be installed in any location.

423.16.5 Floor drains and hose bibbs.

All group toilet rooms shall be provided with at least one floor drain and one easily accessible hose bibb. The floor shall be sloped down to the drain. Stall urinals shall not serve as the required floor drains.

423.16.6 Shielding device.

The entry to each group toilet room shall be provided with a door, partition, or other shielding device to block from view the occupants in the toilet room. If a door is provided, it shall have a closer and shall swing out in the direction of exit. Exterior entries to toilet rooms shall have outward swinging doors.

423.16.7 Hot water.

When hot water is supplied to showers, handwash sinks, lavatories in toilet rooms, a mixing valve shall be installed to control the temperature which shall not exceed 110°F (43°C).

423.16.8 Delayed closing valves.

Water supply at toilet room lavatories shall be controlled by delayed-closing valves.

423.16.9 Shower facilities.

Showers shall be provided only where required by the district's educational program and, where provided, shall utilize energy saving concepts for hot water as required by Section 1013.44(2), Florida Statutes. When provided, shower areas shall comply with the following:

423.16.9.1 Floor finish shall be slip resistant.

423.16.9.2 Floors shall be drained in such a manner that waste water from any shower head will not pass over areas occupied by other bathers.

423.16.9.3 Water shall be heated and the temperature at the shower head shall not exceed 110°F (43°C) nor be less than 95°F (35°C).

423.16.9.4 A master control valve shall be provided to control the shower heads.

Showers shall be equipped with flow control devices to limit total flow to a maximum of 3 gpm (-19 L/s) per shower head.

423.16.9.5 Shower heads shall be based on the peak load to be accommodated at one time and provided at the ratio of one shower head for each five students, located a minimum of 30 inches (762 mm) apart.

423.16.10 Kitchens.

Kitchens and food service areas shall be provided with toilet and hand washing facilities for employees as required by code, state rule and statute.

423.16.10.1 Toilet rooms shall be completely enclosed, have self-closing doors, and shall open into vestibules with self-closing doors. Toilet rooms shall not open directly into food preparation areas, serving areas, or dining areas. A minimum of one water closet and one lavatory, with hot and cold water, shall be provided in each staff toilet.

423.16.10.2 Floor drains. Floor drains shall be provided in the food serving area, kitchen area, scullery, garbage and rubbish rooms, and can wash area.

423.16.11 Dousing shower and eye wash.

Every science room, lab, or shop where students handle materials or chemicals potentially dangerous to human tissue shall be provided with a dousing shower and eye wash for emergency use, including a floor drain.

423.17 Electrical.

423.17.1 Emergency lighting.

Emergency lighting shall be provided at internal and external means of egress, in student-occupied areas, in group toilets, and main electrical rooms.

423.17.2 Electrical rooms and closets.

Main service panels and switches, electrical distribution panels, cabinets, and rooms shall be lockable and not readily accessible to teachers or students.

423.17.3 Spare capacity.

Lighting and power panels shall be provided with a minimum of 20-percent spare breakers and a minimum of 10-percent spare capacity in all main panels and switchboards.

423.17.4 Emergency shutoff switches.

Every laboratory space which has electrical receptacles at student workstations shall have an emergency shutoff switch within 15 feet (4572 mm) of the instructor's workstation. The emergency shut off switch shall be operable by a single motion and shall interrupt power to all receptacles in the room.

Exception : Emergency shutoff switches are not required in computer laboratories.

423.17.5 Emergency disconnect.

Each space equipped with electrically powered machinery accessible to students shall have a minimum of two master emergency disconnect switches at convenient locations within the space to shutoff all power tool outlets, power to student accessible machines and receptacles in the shop. One emergency shutoff or disconnect switch shall be located near the machinery and one emergency shutoff or disconnect switch shall be located in the instructor's office if there is a clear view of the entire shop area, others may be required and located as determined by the authority having jurisdiction. The emergency disconnect or shutoff switch shall be operable by a single motion.

Exception : Ordinary office machines, computers, sewing machines, potter's wheels, residential cooking equipment in home economics labs and other nonhazardous machines do not require emergency disconnect devices.

423.17.6 Steam rooms.

A “panic” switch to deactivate power to heating equipment shall be provided inside sauna and steam rooms. The panic switch shall also be tied into an alarm or other approved warning device in a supervised space in the area of the sauna and/or steam room. The operation of the switch shall be labeled to indicate the intended function.

423.17.7 Lightning.

All facilities in high lightning risk areas shall be evaluated using the Risk Assessment Guide in NFPA 780 and other standards which address lightning protection, and shall be protected accordingly.

423.17.8 Ground fault interrupter (GFI) receptacles.

GFI receptacles shall be installed as required by NFPA 70 of Chapter [27](#) and in the following locations:

1. All elementary special needs classroom receptacles.
2. All building entry vestibule receptacles.
3. All mechanical, boiler and electrical rooms receptacles.

423.18 Assembly occupancies in public educational facilities.

423.18.1 Occupant capacity of an assembly occupancy shall be calculated as follows:

423.18.1.1 Auditorium.

The number of fixed seats, including accessible seating, in the main seating area plus the stage at 13 net square feet (1.2 m²) per person, plus dressing rooms at 20 net square feet (2 m²) per person.

423.18.1.2 Gymnasium/gymnatorium with stage.

The number of fixed and telescopic bench-type bleacher seats at 18 linear inches (457 mm) per person, including accessible seating, plus the main court area at 15 gross square feet (1.4 m²) per person, plus locker rooms at 5 net square feet (.5 m²) per person, plus stage at 13 net square feet (1.2 m²) per person, plus dressing rooms at 20 net square feet (2 m²) per person. Bleachers shall be accessible as required.

423.18.1.3 Dining rooms/cafetorium with stage/multipurpose room.

The main floor area at 15 gross square feet (1.4 m²) per person, plus the stage at 13 net square feet (1.2 m²) per person, plus dressing rooms at 20 net square feet (2 m²) per person, plus the kitchen at 100 gross square feet (9 m²) per person.

423.18.1.4 Classrooms and labs.

Exiting capacity for classrooms shall be calculated at 20 net square (2 m²) feet per occupant. Exiting capacity for laboratories shall be calculated at 50 net square feet (5 m²) per occupant. If spaces are combined through the use of folding partitions, the capacity and exiting shall be based on the capacity of all the spaces joined.

423.18.1.5 Stadiums.

The number of fixed bench-type bleacher seats at 18 linear inches (457 mm) per person, plus accessible seating.

423.18.1.6 Media centers.

The reading room and stacks floor area at 36 net square feet (3.3 m²) per person, plus small group room or area (view and preview) at 5 net square feet (.5 m²) per person.

423.18.1.7 Closed circuit television production, distribution, and control.

The main floor area at 15 net square feet (1.4 m²) per person.

423.18.1.8 Interior courtyards.

The interior courtyard area at 15 gross square feet (1.4 m²) per person. Raised, dedicated landscape areas may be deducted.

423.19 Shade and green houses.

423.19.1 General.

Shade/green houses shall be of Type I, II or IV construction (metal frame) capable of withstanding the appropriate wind load.

423.19.2 Unrestricted exiting.

The location of the shade/green house shall not hinder exiting from new and/or existing structures.

423.19.3 Required doors.

A minimum of two doors remotely located shall be provided. Doors shall be side hinged and shall swing in the direction of egress.

423.19.4 Accessibility.

Green houses shall meet accessibility requirements. The accessible walkway shall be connected to doors leading to an accessible route to the permanent structure.

423.19.5 Shade cloth.

Shade cloth shall be tear-away fabric securely fastened to the structural frame.

423.19.6 Fire extinguisher.

A minimum of one Type 2A-10B:C fire extinguisher shall be provided per shade/green house.

423.19.7 Fire alarm.

Fire alarm pull stations shall be located within 200 feet (60 960 mm) of any shade or green house. Fire alarm horns mounted on a permanent building must be audible inside the shade/green house.

423.19.8 Space heaters.

Space heaters, when provided, shall be mounted at least 6 feet 8 inches (2031 mm) AFF.

423.20 Storage.

423.20.1 General storage.

Storage rooms and closets shall not be located over or under exit stairs and ramps whether interior or exterior. General storage space(s) shall be included in every educational facility for the bulk storage of materials, supplies, equipment, and books. Storage rooms shall be separated from mechanical and electrical spaces. Storage

spaces shall be mechanically ventilated and conditioned as appropriate for the type of materials to be stored. Sinks located in general storage rooms shall not be used for custodial services.

423.20.2 Custodial work areas and storage.

Provide custodial work areas with well supported shelving for supplies, cleaning, and sanitation materials and an office area including male/female lockers and toilet facilities.

423.20.3 Custodial closets and storage.

Custodial closets shall be provided with storage shelving and a service sink supplied with both hot and cold water. They shall be conveniently located to serve each instructional floor and wing regardless of floor area, and other areas such as stage, kitchen, gym, auditorium, clinic, offices and shops.

423.20.4 Chemical and hazardous materials storage.

In addition to the requirements of the *Florida Building Code* and the *Uniform Fire Safety Standards* as adopted by the State Fire Marshal for separation and protection, chemical and hazardous storage facilities shall also include:

423.20.4.1 Chemical storage.

Rooms used for the storage, handling, and disposal of chemicals used in school and community college laboratories shall be vented to the exterior. The ventilation system shall not be connected to the air-conditioning return air system, and the rooms shall be kept at moderate temperatures. Doors shall be lockable from the outside and operable at all times from the inside. Rooms shall be well illuminated. Cabinets shall have shelves with a ½ inch (12.7 mm) lip on the front and shall be constructed of noncorrosive material. When vented to the exterior, chemical storage cabinets shall be mechanically vented in accordance with NFPA 30 and NFPA 91.

423.20.4.2 Hazardous materials storage.

Buildings and/or rooms used for the storage, handling and disposal of flammable, poisonous, or hazardous materials or liquids, and equipment powered by internal combustion engines and their fuels shall be separated from adjacent spaces by 1-hour fire-rated assemblies. These requirements also apply to completely detached buildings within 60 feet (18 288 mm) of student-occupied facilities. Doors shall have a C Label and open directly to the exterior. Storage buildings and/or rooms shall be mechanically ventilated. Electrical fixtures, switches, heat detectors and outlets installed in flammable storage rooms shall be explosionproof.

423.21 Child care/day care/prekindergarten facilities.

423.21.1 Child care/day care/prekindergarten facilities located on board-owned property shall comply with *Florida Building Code* and the *Uniform Fire Safety Standards* as adopted by the State Fire Marshal and the specific criteria in this section. Child care/day care/pre-kindergarten facilities requiring a license from another agency may also be required to comply with additional construction requirements imposed by that agency.

423.21.2 Toilet facilities shall meet accessibility requirements and should open into the instructional space. The toilet may be used by both sexes and shall contain a water closet, lavatory and related accessories.

423.21.3 If child care facilities are provided with a bathing area, it shall be within or adjacent to the child care area and shall contain either a shower with hand-held sprayer

or a tub. The water temperature shall be controlled by a mixing valve and shall not exceed 110°F (43°C).

423.21.4 Toilet facilities shall have a non-slip impervious floor and 6-foot (1829 mm) impervious wainscot.

423.21.5 Drinking fountain(s) shall be provided for the children and be within close proximity of the child care facility.

423.21.6 A towel and soap dispenser shall be provided at each sink. Hand wash areas for adults shall be provided with warm water; the water temperature shall be controlled by a mixing valve and shall not exceed 110°F (43°C). All electrical receptacles shall be placed out of reach of the children.

423.21.7 When provided a residential-type kitchen shall include a nonslip floor, a refrigerator, a residential-type range hood mechanically exhausted to the outside, and a fire extinguisher located within 15 feet (457 mm) of the range within the same room.

423.21.8 Areas designated for children's sleeping mats, cots or cribs shall include a clearly marked exit passageway.

423.21.9 The child care facility shall not contain any storage of cleaning agents, chemicals, or other hazardous materials in student accessible areas.

423.21.10 Outdoor play areas shall be provided and shall be protected from access to streets or other dangers. The play area shall be fenced or walled to a minimum height of 4 feet (1219 mm) and any latches on maintenance gates shall be secured or beyond the reach of the children.

423.21.11 Shade shall be provided in the play area (a covered play area may be provided).

423.21.12 Play equipment shall be firmly anchored, free of sharp corners or pointed surfaces, and shall have cushioning surfaces such as mats or sand beneath.

423.21.13 The grounds shall be free of undergrowth or harmful plant material.

423.22 Clinics.

423.22.1 Clinics in kindergarten through grade 12 (K-12), vocational-technical centers (VTC), and full service schools shall comply with the general criteria found in the *Florida Building Code* and the *Uniform Fire Safety Standards* as adopted by the State Fire Marshal, as well as the specific criteria found herein. Clinics shall be located and equipped to provide emergency aid to students. Closets and storage cabinets used for medications and bandages shall have locks, and shall be designed to be under constant supervision.

423.22.2 School clinics shall include locked storage, toilet room and shower, and bed space.

423.22.3 Sanitary facilities are required as follows:

423.22.3.1 Elementary school clinics, including kindergarten, shall include at a minimum one accessible toilet room, to serve male and female students, complete with a water closet, lavatory, accessible shower, changing table, and accessories.

423.22.3.2 Secondary and VTC school clinics shall include two accessible toilet rooms complete with water closet, lavatory, accessories and shower.

423.22.3.3 Toilet rooms in clinics shall include both hot and cold water at the showers and all lavatories. The water temperature shall be controlled by a mixing valve and shall not exceed 110°F (43°C).

423.22.3.4 Toilet rooms shall have exhaust fans vented to the exterior.

423.22.3.5 A working counter top with lavatory/sink and hot water shall be provided.

423.22.4 The bed area shall be designed to maintain constant visual supervision from the office. Space for student beds shall be provided in each clinic at 50 square feet (5 m²) per bed. Space for beds in secondary and VTC schools shall be equally divided for

male and female students. Beds shall be provided based on student capacity in the following ratios:

423.22.4.1 Up to 500 students—three beds.

423.22.4.2 501 to 1,000 students—four beds.

423.22.4.3 1,001 to 2,000 students—five beds.

423.22.4.4 Over 2,000—six beds.

423.22.5 Full-service school health clinics.

423.22.5.1 Location.

Clinics shall be located to provide a direct accessible route from the exterior and from the interior or by a connecting covered walk.

423.22.5.2 Parking.

Clinics shall be provided with 10 designated parking spaces immediately adjacent to the clinic, one of which shall be accessible to persons with disabilities.

423.22.5.3 Sanitary facilities.

Sanitary facilities are required as follows:

423.22.5.3.1 Full-service school clinics shall include one accessible toilet room for males and one for females, complete with water closet, lavatory, accessories, and shower. Additional toilets may be required for a full-service school clinic depending on occupant load and program.

423.22.5.3.2 Hot and cold water shall be provided at the showers and lavatories. The water temperature shall be controlled by a mixing valve and shall not exceed 110°F (43°C).

423.22.5.3.3 Toilet rooms shall have exhaust fans vented to the exterior.

423.22.5.3.4 A nurses' station shall be provided with a working counter with lavatory/sink and be located so as to maintain visual supervision of the bed area.

423.22.5.4 Locked storage rooms shall be provided for a refrigerator, files, equipment, and supplies.

423.22.5.5 Data outlets shall be provided for computer hook-ups and computer networking and additional electric outlets shall be provided for hearing and vision testing machines.

423.23 Kilns.

Kiln rooms and areas shall be provided with adequate exhaust to dispel emitted heat to the exterior, and they shall not be connected to any other exhaust system. Kilns shall not be located near or adjacent to paths of egress or exit and shall be placed in separate rooms when serving students through grade 3. Kiln rooms shall be provided with appropriate smoke/heat detectors connected to the fire alarm system.

423.24 Open plan schools.

An open plan building or portion of a building may be subdivided into smaller areas by use of low partitions [maximum 5 feet high (1524 mm)], movable partitions, or movable furnishing, which by location and type do not hinder or obstruct the ability of persons in one area of the plan to be immediately aware of an emergency condition in any other area of the plan. Corridors shall be identified with different color or type of flooring materials, by permanent low partitions or by other means to prevent blockage of the path

of egress to exits by partitions or furniture. When open plan schools are partitioned, the work shall conform to the code requirements for new construction. Demountable or movable partitions in open plan classroom areas shall be a maximum of 5 feet (1524 mm) in height and shall terminate a minimum of 5 feet (1524 mm) from any permanent wall. All circulation openings in open plan areas shall be a minimum of 5 feet (1524 mm) wide. Movable furnishings shall not exceed 5 feet (1524 mm) in height and shall have a stable base.

423.25 Public shelter design criteria.

423.25.1 New facilities.

New educational facilities for school boards and community college boards, unless specifically exempted by the board with the written concurrence of the applicable local emergency management agency or the Department of Community Affairs (DCA), shall have appropriate core facility areas designed as enhanced hurricane protection areas (EHPAs) in compliance with this section.

Exception : Facilities located, or proposed to be located, in a Category 1, 2, or 3 evacuation zone shall not be subject to these requirements.

423.25.1.1 Enhanced hurricane protection areas (EHPA).

The EHPA areas shall provide emergency shelter and protection for people for a period of up to 8 hours during a hurricane.

423.25.1.1.1 The EHPA criteria apply only to the specific portions of (K-12) and community college educational facilities that are designated as EHPAs.

423.25.1.1.2 The EHPAs and related spaces shall serve the primary educational or auxiliary use during non-shelter occupancy.

423.25.2 Site.

Factors such as low evacuation demand, size, location, accessibility and storm surge may be considered by the board, with written concurrence of the local emergency management agency or the DCA, in exempting a particular facility.

423.25.2.1 Emergency access.

EHPAs shall have at least one route for emergency vehicle access. The emergency route shall be above the 100-year floodplain. This requirement may be waived by the board, with concurrence of the local emergency management agency or the DCA.

423.25.2.2 Landscaping.

Landscaping around the EHPAs shall be designed to preserve safety and emergency access. Trees shall not conflict with the functioning of overhead or underground utility lines, or cause laydown or impact hazard to the building envelope.

423.25.2.3 Parking.

During an emergency condition, vehicle parking shall be prohibited within 50 feet (15 240 mm) of an EHPA. Designated EHPA parking areas may be unpaved.

423.25.2.4 Signage.

Floor plans of the facility, indicating EHPAs, shall be mounted in the emergency manager's office/area.

423.25.3 Design.

EHPAs may be above or below ground and may have more than one story, provided the design satisfies the wind load and missile impact criteria. Modular and open-plan buildings may serve as EHPAs provided the design satisfies the wind load and missile impact criteria.

423.25.3.1 Excluded spaces.

Spaces such as mechanical and electrical rooms, storage rooms, open corridors, kitchens, science rooms and labs, vocational shop areas and labs, computer rooms, attic and crawl spaces, shall not be used as EHPAs.

423.25.3.2 Capacity.

Fifty percent of the net square feet of a designated educational facility shall be constructed as EHPAs. The net square feet shall be determined by subtracting from the gross square feet those spaces, such as mechanical and electrical rooms, storage rooms, open corridors, kitchens, science rooms and labs, vocational shop areas and labs, computer rooms, attic and crawl spaces that shall not be used as EHPAs. The board, with concurrence of the applicable local emergency management agency or DCA, may adjust this requirement if it is determined to be in its best interest. The capacity of an EHPA shall be calculated at 20 square feet (2 m²) per occupant (adults and children five years or older).

423.25.3.3 Toilets.

Toilet and hand washing facilities should be located within the EHPAs and provided at one toilet and one sink per 40 occupants. These required toilet and hand-washing facilities are not in addition to those required for normal school occupancy and shall be included in the overall facility fixture count.

423.25.3.3.1 Support systems for the toilets, e.g., bladders, portable toilets, water storage tanks, etc., shall be capable of supplying water and containing waste, for the designed capacity of the EHPAs.

423.25.3.3.2 Plumbing and valve systems of “normal” toilets within the EHPAs may be designed for conversion to emergency operation to meet the required demand.

423.25.3.4 Food service.

Where feasible, include counter tops for food distribution functions in the EHPAs.

423.25.3.5 Manager’s office.

An administration office normally used by a school administrator shall be identified as the EHPA manager’s office and shall be located within the EHPA. The office shall have provisions for standby power, lighting, communications, main fire alarm control panel and storage for the manager’s equipment.

423.25.4 Structural standard for wind loads.

At a minimum, EHPAs shall be designed for wind loads in accordance with ASCE 7, *Minimum Design Loads for Buildings and Other Structures, Category III (Essential Buildings)*. Openings shall withstand the impact of wind-borne debris missiles in accordance with the impact and cyclic loading criteria per SBC/SSTD 12. Based on a research document, *Emergency Shelter Design Criteria for Educational Facilities*, by the University of Florida for the DOE, it is highly recommended by the department that the shelter be designed using the map wind speed plus 40 mph, with an importance factor of 1.0.

423.25.4.1 Missile impact criteria.

The building enclosure, including walls, roofs, glazed openings, louvers and doors, shall not be perforated or penetrated by a flying object. For walls and roofs, the missile criteria is as provided in SBC/SSTD 12.

423.25.4.1.1 Materials used for walls, roofs, windows, louvers, and doors shall be certified for resistance to missile impact criteria.

423.25.4.1.2 The glazed openings or permanent protective systems over glazed openings shall be designed for cyclic loading.

423.25.4.2 Roofs.

Roof decks shall be cast-in-place 4-inch (102 mm) or more, normal weight concrete. Concrete decks shall be waterproof. Systems other than cast-in-place concrete shall have adequate bearing, anchorage against wind uplift, diaphragm action, and resistance to rain that are equivalent to a cast-in-place system.

Exception : Structural precast concrete roofs, composite metal decks with normal weight concrete roofs, or other systems and materials that meet the wind load and missile impact criteria may be used.

423.25.4.2.1 Light weight concrete or insulating concrete may be used on roof decks of EHPAs provided the roof decks are at least 4-inch (102 mm) cast-in-place normal weight concrete or other structural systems of equivalent strength.

423.25.4.2.2 Roof openings (e.g., HVAC fans, ducts, skylights) shall be designed to meet the wind load and missile impact criteria.

423.25.4.2.3 Roof coverings shall be specified and designed according to the latest ASTM and Factory Mutual Standards for materials and wind uplift forces. Roofs shall be inspected by a licensed engineer/architect and a representative of the roofing manufacturer.

423.25.4.2.4 Roofs shall have adequate slope and drains sized for normal use and shall have emergency overflow scuppers which will accommodate a 2-inch -per-hour (51 mm) rain for 6 hours.

423.25.4.2.5 Parapets shall satisfy the wind load and missile impact criteria; roof overhangs shall resist uplift forces.

423.25.4.3 Windows.

All unprotected window assemblies and their anchoring systems shall be designed and installed to meet the wind load and missile impact criteria.

423.25.4.3.1 Windows may be provided with permanent protective systems, provided the protective system is designed and installed to meet the wind load and missile impact criteria and completely covers the window assembly and anchoring system.

423.25.4.3.2 EHPAs without windows shall have mechanical ventilation systems.

423.25.4.4 Doors.

All exterior and interior doors subject to possible wind exposure and/or missile impact shall have doors, frames, anchoring devices, and vision panels designed and installed to resist the wind load and missile impact criteria or such doors, frames, anchoring devices, and vision panels shall be covered with permanent protective systems designed and installed to resist the wind load and missile impact criteria.

423.25.4.5 Exterior envelope.

The exterior envelope, louvers over air intakes and vents, and gooseneck type intakes and vents of EHPAs shall be designed and installed to meet the wind load and missile impact criteria.

423.25.4.5.1 HVAC equipment mounted on roofs and anchoring systems shall be designed and installed to meet the wind load criteria.

423.25.4.5.2 Roof mounted HVAC equipment shall have a 12-inch-high (305 mm) curb around the roof opening and be designed to prevent the entry of rain water.

423.25.4.6 Foundations and floor slabs.

Foundations shall be designed to resist all appropriate loads and load combinations, including overturning moments due to wind. The floor elevation and necessary life safety and other emergency support systems of EHPAs shall be elevated above the maximum storm surge inundation elevation associated with a Category 4 hurricane event. Storm surge elevations shall be identified by the most current edition of the regional Sea Lake and Overland Surges from Hurricanes (SLOSH) studies and atlases.

423.25.5 Electrical and standby emergency power system.

The EHPA shall be provided with a standby emergency electrical power system, per Chapter [27](#), NFPA 70 Articles 700 and 701, which shall have the capability of being connected to a backup generator or other optional power source. Where economically feasible, an equivalent photovoltaic system may be provided. The EHPA's emergency systems includes, but are not limited to: (1) an emergency lighting system, (2) illuminated exit signs, (3) fire protection system(s), alarm (campus wide) and sprinkler, and (4) minimum ventilation for health/safety purposes. The fire alarm panel shall be located in the EHPA manager's office. A remote annunciator panel shall be located in or adjacent to the school administrator's office. When generators are installed, the facility housing the generator, permanent or portable, shall be an enclosed area designed to protect the generators from wind and missile impact. Air intakes and exhausts shall be designed and installed to meet the wind load and missile impact criteria. Generators hardened by the manufacturer to withstand the area's design wind and missile impact criteria shall be exempt from the enclosed area criteria requirement.

423.25.5.1 EHPA lighting.

Emergency lighting shall be provided within the EHPA area, EHPA manager's office, toilet rooms, main electrical room and generator spaces and shall be at least 10 footcandles (100 lux) of general illumination, which can be reduced to 1/2 footcandle (5 lux) in the sleeping areas during the night.

423.25.5.2 Optional standby circuits.

Additional nonlife safety systems, as defined by Chapter [27](#), NFPA 70 Article 702 (optional standby circuits), may be supplied power, if available, by the Standby Emergency Power System. These systems shall be connected to the Standby Emergency Power System via an electrical subpanel to the Standby Electrical Power System's main electrical panel. This will allow selective or total load shedding of power if required. The fire alarm, emergency lighting and illuminated exit signs throughout the entire campus shall receive first priority to power provided by the Standby Emergency Power System per Chapter [27](#), NFPA 70 Article 700. The systems listed are not all encompassing but are in order of priority. Local officials may request additional non-life safety systems they deem necessary for health, welfare and safety of the public during occupancy:

1. Remainder of the school's campus security lighting (building and site).

2. Additional ventilation systems within the EHPA, including heat.
3. Intercom system.
4. Food storage equipment.
5. Additional electric receptacles, other than those required by Section [423.25.5.3](#).

423.25.5.3 Receptacle outlets.

A minimum of four electrical outlets, served with power from the standby circuits, shall be provided in the EHPA manager's office.

423.25.6 Inspections.

EHPAs shall be considered "threshold buildings" in accordance with Section 553.71(7), Florida Statutes, and shall comply with Sections 553.79(5), 553.79(7), and 553.79(8), Florida Statutes.

423.25.6.1 Construction of EHPAs shall be inspected during the construction process by certified building code inspectors or the design architect/engineer(s) certified pursuant to Part XII Chapter 468, Florida Statutes and threshold inspectors for compliance with applicable rules and laws.

423.25.6.2 The emergency electrical systems shall be inspected during the construction process by certified electrical inspector or Florida-registered professional engineers certified pursuant to Part XII Chapter 468, Florida Statutes, skilled in electrical design.

423.25.6.3 EHPAs shall be inspected and recertified for compliance with the structural requirements of this section every five years by a Florida-registered professional engineer skilled in structural design. If any structural system, as specified in this section, is damaged or replaced, the recertification shall be obtained prior to the beginning of the next hurricane season.

423.25.6.4 All shutter systems, roofs, overflow scuppers, and structural systems of EHPAs shall be inspected and maintained annually prior to hurricane season and after a major event. All emergency generators shall be inspected under load conditions including activation of the fire alarms, emergency lights as per applicable equipment codes and NFPA standards, and including mechanical systems and receptacles connected to the emergency power.

423.26 Time-out rooms.

423.26.1 Locking an individual inside a space without a means of opening the door from within that space is contrary to the exiting philosophy of the *Florida Building Code* and the *Uniform Fire Safety Standards* as adopted by the State Fire Marshal for educational facilities. The educational program which requires containment of the out-of-control student can be accommodated within this context only if the following are met:

423.26.2 Electromagnetic locking device.

When a time-out room is to be locked, an electromagnetic locking device may be used and shall have the following features:

423.26.2.1 The lock shall remain engaged only when a push button mounted outside the time-out room adjacent to the door frame, or other hand held device, is continuously depressed by hand. Upon release of pressure, the door shall unlock. The locking device shall be designed so that it cannot be engaged by leverage of an inanimate object or in any other manner except by constant human contact.

423.26.2.2 The push button, or similar device, shall be recessed from the face of the unit housing, or in some other way designed to prevent taping or wedging the button in the engaged mode.

423.26.2.3 The device shall have an interface relay with the fire alarm system and shall automatically release upon activation of the fire alarm.

423.26.2.4 The locking device shall automatically disengage in the event of a power failure.

423.26.2.5 Timers shall not be used on the locking device.

423.26.3 Door requirements.

The door shall have only a push plate exposed on the interior of the room.

423.26.3.1 The door shall swing out of the room and shall be equipped with a fully concealed track type closer.

423.26.3.2 A vision panel shall be provided in the door, and it shall be no larger than 144 square inches (.1 m²). The view panel shall consist of a clear ¼-inch-thick (6 mm) unbreakable plastic panel flush with the inside face of the door on the inside of the room. The panel shall be positioned in the door so that a staff member may continuously keep the student under surveillance.

423.26.3.3 The door frame and jamb/head reveal on the inside shall be minimal. If provided, a flat metal threshold shall be used.

423.26.4 Finishes.

The floor and walls shall be durable, vandal-resistant materials. The ceiling shall be of a solid and moisture-resistant material. There shall be no projections or protrusions from the walls, ceiling, or floor. All surfaces shall be smooth and no electrical outlets, switches, plumbing clean-outs or similar items shall be inside the room. The room shall not contain anything that can be set on fire, torn, shredded or otherwise used for self-harm.

423.26.5 Minimum size.

The room shall be designed for a single occupant only and shall be a minimum of 6 feet by 6 feet (1828 mm by 1828 mm).

423.26.6 Lighting.

The room shall have a recessed vandalproof light fixture in the ceiling capable of being dimmed. The light switch shall be located outside the room adjacent to the door jamb.

423.26.7 HVAC required.

Time-out rooms shall be mechanically heated and cooled. Registers shall be ceiling mounted and vandalproof.

423.27 New relocatable buildings.

423.27.1 Relocatables.

The terms “relocatable” and “portable” are interchangeable and both terms are used to describe buildings which are constructed to the same building codes as permanent public school buildings, except they are designed to be moved. These buildings may be manufactured in a plant, constructed on site, may be made of demountable components, and may be combined. All new relocatable or portable classrooms shall be designed and constructed in compliance with the *Florida Building Code*, the *Uniform Fire Safety Standards* as adopted by the State Fire Marshal and the Department of Community Affairs rules for factory-built school buildings (see Section [428](#)). The requirements for new relocatables contained herein are in addition to the minimum requirements of the *Florida Building Code* and the *Uniform Fire Safety Standards* as adopted by the State

Fire Marshal. New relocatables which do not comply with the building codes, fire codes and these standards shall not be used as classrooms or for any other student occupancy. For code requirements and other standards applicable to relocatables constructed prior to this code, which may be Type V (wood) relocatables, see *Existing Relocatables, Volume 1, Section 5(2), State Requirements for Educational Facilities* as referenced in the *Uniform Fire Safety Standards* as adopted by the State Fire Marshal.

423.27.1.1 Factory-built school shelter means any site-assembled or factory-built school building that is designed to be portable, relocatable, demountable or reconstructable and that complies with the provisions for enhanced hurricane protection areas, as required by the applicable code (see Section [423.25](#)).

423.27.2 Design, plan approval, construction.

Regardless of cost or fund source, whether used for classroom, auxiliary or ancillary space, whether leased, purchased, contracted, or constructed by the school board or community college board, plans and documents for relocatables, portables and modular schools shall be prepared by Florida registered design professionals and submitted to the authority having jurisdiction for review and approval for compliance with Florida laws, rules, building and life safety codes. The buildings shall be constructed and inspected by personnel licensed, certified or trained as required by Florida construction industry licensing laws.

423.27.2.1 District-wide foundation plans.

District-wide foundation plans for tie down and wind resistance for each type of relocatable and each type of known soil condition in the district, shall be prepared and reviewed at the time of the design and shall be required as a part of the approval of any relocatable. These documents shall be kept on file in the district, with an additional copy in each relocatable filed together with current annual local fire inspection reports, as required by law. The foundation plans shall be reviewed and updated when necessary for compliance with current code for subsequent installations of the relocatable. Relocatables which do not meet the requirements of code for tie down and wind resistance shall not be occupied.

423.27.2.2 DOT Requirements.

Relocatable units designed to be moved on state roads shall comply with the maximum unit height, length and width requirements of the DOT.

423.27.2.3 Inventory/construction date signage.

A FISH inventory room number and the date of construction shall be noted on an inventory sign permanently affixed outside, beside or above the door, on all relocatables owned or leased by a district.

423.27.3 Construction type.

All new relocatables constructed, purchased or otherwise acquired by a board shall be noncombustible Type I, II or IV construction.

423.27.4 Accessibility.

All relocatables constructed, purchased or otherwise acquired by a board after the effective date of these standards shall comply with the Americans with Disabilities Act as modified by Chapter 553, Florida Statutes, Chapter [11](#) of the *Florida Building Code, Building*. Relocatables intended for use at facilities housing up to grades 5 or 6, shall also conform to the federal criteria *Accessibility Standards for Children's Environments*,

which is available from the U.S. Architectural and Transportation Barriers Compliance Board.

423.27.5 Site standards/site plan.

Relocatables placed on educational plant sites shall comply with federal and state laws and rules relating to the placement of structures on sites, as well as building code, fire code site requirements.

423.27.5.1 Floodplain.

Compliance with floodplain standards is required for the initial and subsequent installation of public educational relocatable units. The finished floor shall be 12 inches (305 mm) above base flood elevation, the structure shall be designed to meet the *Florida Building Code* and anchored to resist buoyant forces.

423.27.5.2 Covered walks and technology.

New relocatables and “modular schools” acquired by a board which are intended for long term use, shall be connected from exit door to the core facilities by accessible covered walkways, and shall contain wiring and computer technologies which connect to the facility’s technology, communications and fire alarms infrastructure.

Exceptions:

1. Covered walks and public address systems are not required in community college facilities.
2. Temporary relocatables constructed after the date of this standard shall meet all construction requirements of this code, except that covered walks may be installed. The term “temporary relocatable” means relocatables which are used for less than three years to provide temporary housing while permanent replacement classrooms and related facilities are under construction, renovation or remodeling. The term “temporary relocatable” does not apply to relocatables which have been located on a school site for more than two years and used for classrooms or for student occupancy, where there is no identifiable permanent facility which is under construction, being remodeled, or renovated to house the students.

423.27.5.3 Separation of units.

Type I, II or IV, (noncombustible) relocatable units shall be separated as required by the *Florida Building Code* and the school site plan.

423.27.6 Structure.

Relocatable structures shall be positively anchored and designed to comply with *Florida Building Code* requirements.

423.27.7 Fire-retardant-treated wood (FRTW).

Only FRTW which does not contain ammonium phosphates, sulfates, or halides may be used in the roof structure of Type III construction, as authorized by other sections of the *Florida Building Code*. FRTW shall comply with the specific requirements found elsewhere in these public educational facilities requirements. Contractors shall provide evidence of compliance to inspectors. Inspection access panels shall be provided to facilitate initial and annual inspections for general condition assessment of FRTW and connectors.

423.27.8 Doors.

Exit doors shall swing in the direction of exit travel.

423.27.8.1 Classroom locksets.

Each door shall be equipped with a lockset, which is readily opened from the side from which egress is to be made at all times, a threshold, heavy duty hinges, and closer to control door closing. Each door shall have a view panel, with minimum dimensions of 8 inches by 42 inches (1067 mm) and a maximum of 1,296 square inches (.84 m²), of ¼ inch (6 mm) tempered or safety glass installed with the bottom edge of the panel at 30 inches (762 mm) AFF. Each exterior door shall be protected from the elements by a roof overhang.

423.27.8.2 Roofed platform.

All exterior doors shall open onto a minimum 5 foot by 5 foot (1524 mm by 1524 mm) roofed platform with handrails, which is level with the interior floor.

423.27.9 Operable windows.

Classrooms shall have operable windows equal to at least 5 percent of the floor area of the unit where required by Section 1013.44, Florida Statutes. Exterior doors may be included in computing the required 5 percent. Awning, casement, or projecting windows shall not be placed in walls with adjacent walks, ramps, steps or platforms.

423.27.9.1 Rescue.

Windows for emergency rescue shall comply with NFPA 101, shall be operable from the inside by a single operation and shall be labeled "EMERGENCY RESCUE—KEEP AREA CLEAR."

423.27.10 Finishes.

Finishes in relocatable units shall comply with the following:

423.27.10.1 Interior walls and ceilings.

Interior wall and ceiling finishes in classrooms and other student use spaces shall be Class A or B as defined in NFPA 101. Corridor finishes shall be Class A. Formaldehyde levels shall not exceed the minimum HUD standards for manufactured housing.

423.27.10.2 Floors.

Floors shall be covered with resilient material, carpet, or other finished product. Carpet in classrooms shall be tested and certified by the manufacturer as passing the Radiant Panel Test Class II. Carpet in corridors shall be tested and certified by the manufacturer as passing the Radiant Panel Test Class I.

423.27.10.3 Toilet rooms, showers and bathing facilities.

Partitions and walls separating group toilet rooms shall be extended to the bottom of the roof deck.

423.27.10.3.1 Toilet room floors and base shall be finished with impervious nonslip materials. Toilet room walls shall be finished with impervious materials which shall be extended to a minimum height of 6 feet (1828 mm).

423.27.10.3.2 Ceilings shall be of solid-type moisture- resistant materials.

423.27.11 Fire extinguishers.

At least one appropriate fire extinguisher shall be provided in each relocatable classroom unit and in each classroom of a multiclassroom building.

423.27.12 Document storage.

Provision shall be made to secure foundation plans and to post the annual fire inspection report within each relocatable unit.

423.27.13 Time-out rooms.

Time-out rooms are not recommended but, when provided, shall comply with the specific requirements for time-out rooms found elsewhere in these public educational facilities code requirements.

423.27.14 Child care/day care units.

Standard classroom units intended to house birth to age 3 children, including Teenage Parent Programs (TAP), shall meet the additional criteria under the title of *Child Care/Day Care/Prekindergarten Facilities* for permanent buildings contained in these public educational facilities requirements, as well as the following:

423.27.14.1 All TAP spaces where residential kitchens are provided shall have two doors exiting directly to the outside and remotely located from each other. Areas designated for children's sleeping mats, cots or cribs, shall have a clearly marked exit passageway.

423.27.15 Illumination required.

Illumination in classroom units shall be designed to provide an average maintained 50 footcandles (500 lux) at desk top.

423.27.15.1 Emergency lighting.

Each classroom unit shall be equipped with emergency lighting.

423.27.15.2 Exterior lighting.

Exterior lighting shall be provided as required elsewhere in these public educational facilities code requirements.

423.27.15.3 Exit lighting.

Exit lights shall be provided as required by the *Uniform Fire Safety Standards* adopted by the State Fire Marshal.

423.27.16 Air conditioning, heating and ventilation.

Relocatable facilities shall meet *Florida Building Code* requirements.

423.27.17 Technology.

Relocatables shall contain wiring and computer technology appropriate for the programs to be housed.

423.27.18 Fire safety requirements.

New relocatables shall be provided with fire alarm devices meeting the code requirements for permanent educational facilities and shall be connected to the facility's main fire alarm system as required by code.

423.27.19 Inspection of units during construction.

Boards shall provide for the inspection of relocatables during construction, as required by the *Florida Building Code*, as authorized by statute.

423.27.20 Inspection of units prior to occupancy.

Prior to occupancy new relocatables shall be inspected and approved for compliance to the *Florida Building Code*. New units shall have foundation plans provided and secured, in the relocatable along with the local fire inspector report. Certification of such inspection shall remain on file with the district. Inventory/date of construction signage shall be affixed to the relocatable. Where FRTW is used inspection access panels shall be provided and within easy reach to facilitate inspection for general condition assessment of FRTW and connectors.

423.28 Existing relocatable buildings and factory built schools.

423.28.1 Annual inspection of existing property required.

Additional inspectors and standards are required for existing “satisfactory” relocatable classroom units.

423.28.1.1 Board provided inspections of relocatables.

Existing relocatable buildings, whether owned, leased, or lease-purchased, shall be inspected for compliance with the standards for existing “satisfactory” buildings. Annual inspection reports for all relocatables designed as classrooms or spaces intended for student occupancy, shall be filed. Corrections shall be adopted by the board. The inspection report for each relocatable shall be posted therein.

423.28.1.2 Inventory/date of construction.

After July 1, 2002, each relocatable, whether owned, leased, or lease-purchased, shall be identified by an inventory number, which links the unit to a date of construction. “Satisfactory” relocatables shall comply with these standards for existing relocatables. Where exact date cannot be determined, provide estimated date of construction of the facility. Owned and leased buildings shall be included in the inventory.

423.28.2 Standards for existing “satisfactory” relocatable classroom buildings and factory built schools.

Existing relocatables, whether leased or owned, if constructed before the effective date of these rules, which meet the standards, shall be identified as “satisfactory” in the Florida Inventory of School Houses (FISH). After July 1, 2002, relocatables used as classrooms or spaces intended for student occupancy, which fail to meet the standards of this section shall not be reported as “satisfactory” and may not be used as classrooms. After July 1, 2002, relocatables which have been in use at a school site for more than two years where there is no identifiable permanent replacement facility under construction to house the students, and which fail to meet the standards of this section, shall not be reported as “satisfactory” and may not be used as classrooms. These buildings shall be included on a corrective action plan filed with the board and posted in each relocatable. The standards are as follows:

423.28.2.1 Construction type.

Relocatable units shall be of Type I, II or IV (noncombustible), or Type III or V (wood frame) construction of the code as follows:

423.28.2.2 Noncombustible.

Type I, II or IV (noncombustible) construction shall be used where several relocatable units are joined under a single roof to create multiclassroom or other use spaces in excess of 2,000 square feet (182 m²).

423.28.2.3 Wood frame.

Type III or V (wood frame) construction shall be used only for a single classroom unit of 1,000 gross square feet (93 m²) or less. Two classroom units of Type III or V construction may be joined together, if for a single use such as exceptional education, TAP, or science, provided the single classroom does not exceed 2,000 gross square feet (186 m²), is without interior partitions (not including office, storage, and toilet) and has at least two remotely located exit doors.

423.28.2.4 Accessibility.

Relocatables shall comply with the Americans with Disabilities Act as modified by Chapter 553, Florida Statutes in the *Florida Building Code, Building* as Chapter [11](#). These standards can be obtained from the Florida Department of Community Affairs, Building Codes and Standards Office. Where inspection reports identify otherwise satisfactory classroom relocatables not in compliance, the board shall develop a transition plan for achieving compliance, and post with the annual inspection report in the documents compartment.

423.28.2.5 Sites/master plan.

After July 1, 2002, for sites where relocatables have been in use for more than two years where there is no identifiable permanent replacement facility under construction to house the students or programs, campus master plans shall be developed indicating: the maximum design capacity of core facilities, the locations of relocatables, the locations of covered accessible walks, and related structures.

423.28.2.5.1 Covered walks.

After July 1, 2002, relocatables used as classrooms or spaces intended for student occupancy, including “modular schools,” which have been in use at school sites for more than two years shall be connected to the core facilities by covered accessible walkways. Where cost precludes compliance with this requirement within stipulated time limits, a transition plan shall be included in the board’s five-year workplan.

Exception: The term “temporary relocatable” means relocatables which are used for less than three years to provide temporary housing while permanent replacement classrooms and related facilities are under construction, renovation or remodeling. The term “temporary relocatable” does not apply to relocatables which have been located on a school site for more than two years and used for classrooms or for student occupancy, where there is no identifiable permanent facility which is under construction, being remodeled, or renovated to house the students.

423.28.2.5.2 Separation of units.

Type III or V (wood frame) relocatable units are separated from each other and any permanent buildings by sufficient distance, in each direction to prevent the spread of fire and located to allow access by emergency vehicles. The locations are determined jointly by the local fire-fighting authority that services the site. Type I, II or IV (noncombustible) relocatables shall be separated as required by the code.

423.28.2.5.3 Minimum setbacks.

The minimum setback for wood frame relocatable units is at least 25 feet (7620 mm) from a property line, unless a greater setback is required by local zoning. The minimum setback for Type I, II or IV (noncombustible) relocatables is 25 feet (7620 mm) unless a smaller setback is permitted by local zoning.

423.28.2.5.4 Floodplain.

Relocatable units located in a 100-year floodplain shall have the finished floor at least 12 inches (305 mm) above the base flood elevation and be anchored to resist buoyant forces, if applicable.

423.28.2.6 Structure.

Structural integrity of relocatables shall be sound, including roof, wall, foundation and floor systems.

423.28.2.6.1 Wind uplift.

Wind uplift forces are countered by providing anchors from the roof to the walls, from the walls to the floor structure, and from the floor structure to the foundation.

423.28.2.6.2 Connections.

Connections are not damaged from movement, not rusted, and required nails or screw connectors are secure.

423.28.2.6.3 Foundations.

Foundations for relocatables shall meet the code for wind uplift and overturn conditions, and load requirements for soil conditions as sited.

423.28.2.6.4 Foundation new construction standards apply when moved.

When relocatables are moved to a new location on a new site or on the same campus, new foundations shall comply with new construction requirements of the code, and ASCE 7. Foundations and tie down or anchoring system plans shall be updated to meet wind uplift and overturn conditions, and soil conditions.

423.28.2.6.5 Inspection.

The foundation and anchoring system have been inspected by a certified inspector and the inspection approval document is on file with the district.

423.28.2.6.6 Tie-downs.

Tie-downs from the foundations to the relocatable structure are not damaged or rusted. Relocatable units located in floodplains are anchored to resist buoyant forces, if applicable.

423.28.2.7 Fire-retardant wood.

Inspections of relocatables with roof structures constructed of FRTW products, as allowed in Type IIB (noncombustible) construction, shall include the condition of metals, including structural connectors for the walls, roof, foundations; electrical equipment; mechanical equipment and fire alarms.

423.28.2.8 Roofing/moisture protection.

Weatherproofing systems are intact; roofing, caulking/sealants at penetrations in walls, roofs, underside and sealers at windows/doors have not been damaged and remain watertight; holes and cracks have been sealed.

423.28.2.9 Doors.

Doors in relocatable units shall be provided as follows:

423.28.2.9.1 Two doors.

Single classroom units of Type III or V (wood) construction shall have two remotely located doors opening directly to the outside.

423.28.2.9.2 Door and rescue window.

Multiclassroom units of Type I, II or IV (noncombustible) construction have a primary exit door and an emergency rescue opening in each space occupied by 10 or more students, or by six or more students for relocatables designed after October 18, 1994. (An emergency rescue opening is not required when there is a door opening directly to the outside.)

423.28.2.9.3 Door swing.

Exit doors swing in the direction of exit travel.

423.28.2.9.4 Hardware.

Exit doors are equipped with a lockset, which is readily opened from the side from which egress is to be made; a threshold; heavy duty hinges; and closer which prevents slamming. Accessible hardware is provided on all doors in a standard classroom unit.

423.28.2.10 Platform.

All exterior doors open onto a 5 foot by 5 foot (1524 mm by 1524 mm) platform which is level with the interior floor and connects with an accessible ramp or step equipped with handrails.

423.28.2.11 Time out.

Time-out rooms, when provided, are equipped with doors which allow egress at all times in the event of an emergency. Locking devices on time-out rooms are discouraged, but if necessary, shall meet the requirements of new construction without exception.

423.28.2.12 Operable windows.

Classroom units have operable windows equal to at least 5 percent of the floor area of the classroom. Exterior doors may be included in computing the required 5 percent.

423.28.2.12.1 Emergency rescue.

Each multiclassroom unit of Type I, II or IV (noncombustible) construction has a single-action operable window available for emergency rescue from each classroom or student occupied space.

423.28.2.12.2 Projections.

Walks, ramps, steps, and platforms are free of any awning, casement, or projecting windows.

423.28.2.13 Finishes.

Finishes in single classroom units and multiclassroom buildings, including "modular schools" comply with the following:

423.28.2.13.1 Toilet rooms.

Ceilings in toilet rooms are of moisture resistant materials. Walls in toilet rooms are finished with impervious materials to a minimum height of 6 feet (1828 mm). Vinyl wall

covering shall not be used in toilets. Floor and base in individual or group toilet rooms are impervious.

423.28.2.13.2 Classrooms.

Single classroom units and auxiliary area floors are covered with resilient materials or carpet.

423.28.2.13.3 Time out.

Walls and ceilings in time out rooms are finished with durable, vandal-resistant materials and are free of any loose or potentially hazardous materials.

423.28.2.14 Fire extinguisher.

At least one appropriate fire extinguisher is provided, inspected and maintained in accordance with NFPA 10, in each relocatable classroom and in each classroom of multiclassroom units.

423.28.2.15 Child care/TAP.

Standard classroom units of Type III or V (wood) construction housing newborn to age 3 children, including TAPs, are less than 2,000 gross square feet (186 m²), and comply with additional safety requirements outlined in this section. If a residential-type kitchen is provided in these units, it shall include a residential range hood mechanically exhausted to the outside and a fire extinguisher located within 10 feet (3048 mm) of the range.

423.28.2.16 HVAC.

Heating, ventilation and air-conditioning systems must be checked for: proper operation; maintains design temperatures of at least 78°F (26°C) in the summer and 68°F (20°C) in the winter; adequate humidity control is provided; filters have been cleaned; system provides fresh air; coils are clean; condensate line is clean; air flow and air distribution system functional; outdoor intake clear of pollutant sources; and outdoor damper operating properly. Adverse indoor air quality indicators are not in evidence. There are no signs of mold or mildew on carpet, walls, in or around HVAC system or toilet rooms.

423.28.2.17 Plumbing.

Plumbing systems and toilet rooms, where included, meet code requirements for connections to water and sewer, do not leak or drip, and are clean and sanitary.

423.28.2.18 Electrical.

Electrical systems have been checked for damage, and operate properly. Technology systems, communication systems, life safety and emergency systems have been tested and operate properly.

423.28.2.18.1 Illumination.

Lighting fixtures shall be maintained in a safe, secure, and operational condition at all times.

423.28.2.18.2 Emergency lighting.

Each classroom and spaces used for student occupancy, is equipped with emergency lighting.

423.28.2.18.3 Technology.

After July 1, 2001, relocatables used as classrooms or spaces intended for student occupancy, which have been in use at school sites for more than three years where there is no identifiable permanent replacement facility under construction to house the students, shall contain wiring and computer technologies for teaching infrastructure in permanent classrooms.

423.28.2.19 Fire safety systems.

Fire safety systems and equipment have been inspected and certified as required by NFPA 72. These systems include fire alarms, fire extinguishers, smoke and heat detectors.

423.28.2.19.1 Heat and smoke detectors in wood construction.

In Type III, IV or V (wood) construction, heat or smoke detectors are installed in every classroom, unsupervised spaces, storage space, and custodial closets, and can activate the fire alarm.

423.28.2.19.2 Heat and smoke detectors in noncombustible construction.

In Type I or II (noncombustible) construction, heat or smoke detectors are installed in storage and custodial closets, and can activate the fire alarm.

423.28.2.19.3 Fire alarm.

Each relocatable classroom, other student use spaces, and each multiclassroom unit shall be provided with approved fire alarm devices meeting all requirements for existing educational buildings as required by the fire safety code. The fire alarm in the permanent facility shall be audible from inside any relocatable located within 200 feet (60 960 mm) of a permanent building. Relocatables shall be sited for access to a pull station within 200 feet (60 960 mm).

423.28.2.19.4 Local agency inspection report.

An inspection report is provided from the local fire control authority indicating that they have inspected each relocatable and have found that no serious life safety hazards exist which would preclude continued occupancy. The letter shall identify each relocatable by district inventory identification nomenclature and shall be posted therein.

423.28.2.20 Abandoned or warehoused facilities.

Board facilities no longer in use which are abandoned or in storage but still owned, shall be secured in such a manner as to prevent safety hazards, unlawful entry, and undue vandalism from occurring. Abandoned or stored facilities returned to use shall be inspected and certified as meeting the standards for existing "satisfactory" relocatables prior to occupancy.