

FMP 2019 - Portable Reduction and Management Strategy

DRAFT - 12.12.2019

Introduction

The 2017 FMP Update set forth the vision to modernize all district schools into 21st century learning environments. To achieve this vision, the district must re-assess its decision-making practices around the use and management of portables, and work towards minimizing its dependence on portables as long-term solutions.

Most portables contain two classrooms and are primarily used for student instruction, while other uses include student support, daycares and other community wrap-around services. The district owns the majority of the portables, but also has some long-term leases, and newer short-term leases that serve as swing space for the 2017 bond modernization projects. The district chose the short-term leasing option for modernization projects due to the high cost to re-locate and set-up portables. Additionally, the leased portables being used for swing space are generally in better condition than the district's current stock.

The average useful life of a portables is approximately 20 years—the district's oldest portable was constructed in 1952 (68 years ago), while the newest district-owned portable is from 1997 (23 years ago). A 2016 portable assessment classified the condition of 650 portables as Excellent, Good, Fair, Poor or Failing. At that time, over 78% of portables were assessed to be Poor, 11% Failing, and 10% Average, while none were assessed as Good or Excellent.

As of October 2019, the district had 622 portables (605 district-owned and 17 long-term leases) located on campuses, a reduction of 28 since 2016. Nineteen of the 28 portables were demolished, while nine of the long-term leases were terminated. As the 2017 bond modernization projects are completed, it is projected that at least 100 additional portables can be demolished or used to replace those that are currently under long-term leases.

Number of Portables by Campus Level – 2019-20 School Year

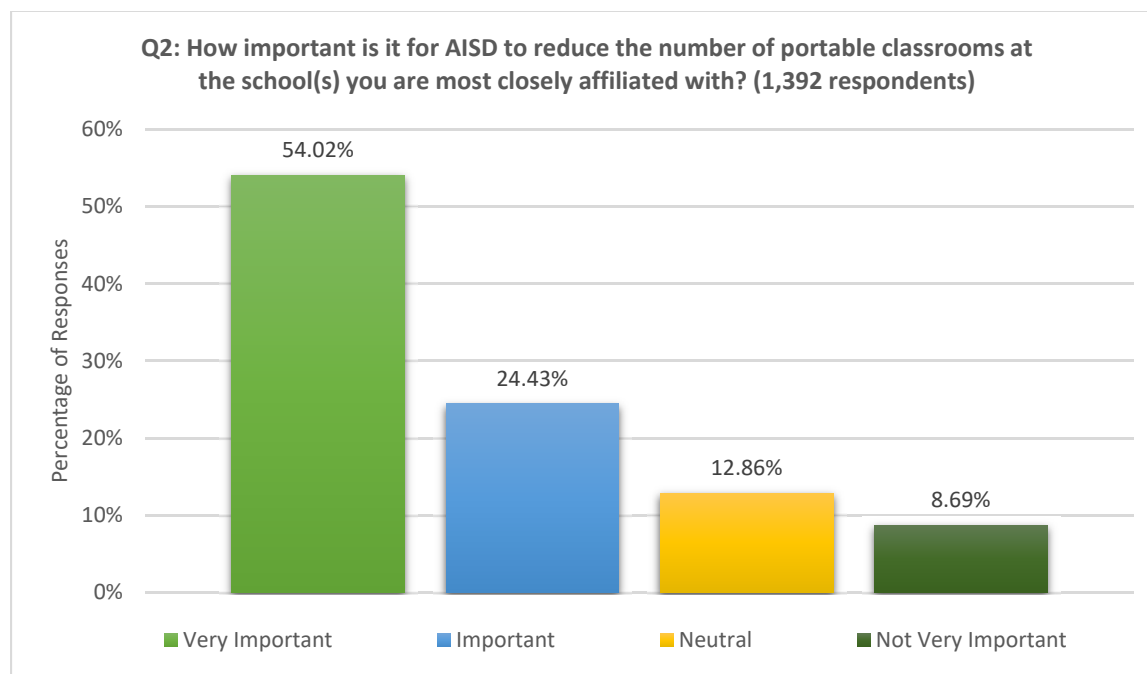
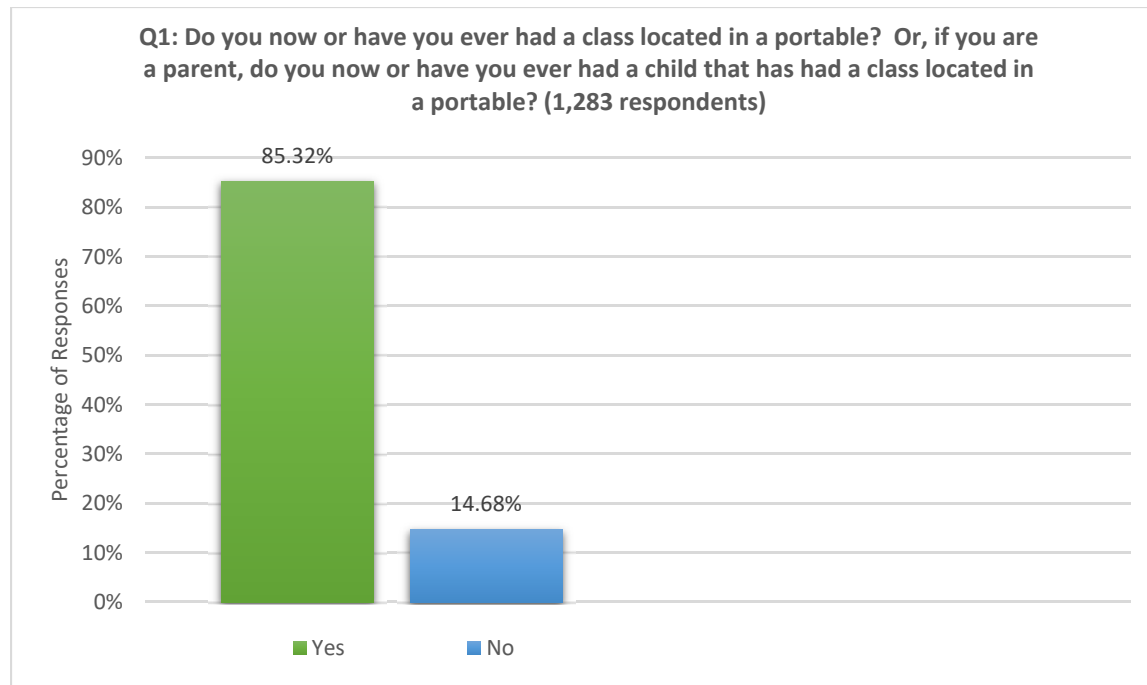
	Total # of Schools	# of Schools with Portables	Percentage
Elementary School	80	73	88%
Middle School	18	14	78%
High School	15	12	80%

The schools with the most portables at each level are Blazier Elementary School at 16, Murchison Middle School at 16, and Akins High School at 20. Both Blazier ES and Murchison MS were funded in the 2017 bond program to receive additional permanent capacity, which should result in all or the majority of the portables being removed from the campuses once complete.

[Include portable count and location map]

Community Survey

In February 2019, the district conducted a survey with three questions specific to the district's use of portables. As shown below, most survey participants felt it was **very important or important to reduce the number of portables** at campuses, and many responses included concerns about **health and safety**.



Q3: What is your biggest concern about AISD portables, if any?

Almost all of the responses stated a variety of concerns about portables, while very few respondents stated they did not have concerns.

*"Feeling **disconnected** from campus community"*

*"**Safety** issues, **air quality**, not convenient/waste of time to travel from portable to school building, **smaller classrooms**"*

"Communication with the building, seems on an island when you are teaching in a portable"

"Learning conditions are impacted by loud air conditioning equipment, lack of space, poor facilities, etc... More time spent in passing periods for students, more unprotected spaces at a school."

"Security as compared to being within the school building itself"

"Too many are becoming permanent fixtures and they do not provide the 21st Century opportunities that a modern classroom provides."

"As long as students have only a class or two in a portable, I think it offers an interesting variation to the class day for students. If they spend all day in a portable, then "no"."

"I have no concerns. I think portables are great. Access to fresh air, reduction in noise in halls, control over HVAC are all benefits."

Purpose Statement

The purpose of a portable reduction and management strategy is to provide as many students as possible the opportunity to be educated in "warm/cool, safe and dry" and modernized learning environments.

When a portable building needs to be placed on a campus to provide classroom space, it should be considered as a temporary solution. Once the construction of additional permanent capacity, a change in attendance area boundaries, or a reduction in student enrollment occurs, the portable buildings should be removed.

When portables become a long-term solution for capacity issues, it can result in negative impacts to academics, sustainability, and safety and security goals. Therefore, the district should implement a portable reduction and management strategy to guide district staff when making decisions to purchase, relocate, demolish and retain portables in the most efficient manner, and in alignment with district goals.

By reducing portables, student instruction can occur within permanent structures and will:

- increase opportunities for collaboration amongst students and teachers,
- expand options for flexibility within the learning environment,
- improve equity amongst students and teachers,
- reduce security and safety risks inherent to the location of portables, and
- support sustainability goals.

Campus Safety and Security Impacts

Austin ISD's Police Department has stated that portables present notable safety obstacles, and supports a district effort to reduce the number of portable buildings on school campuses.

Listed below are a summary of issues identified by the District Police Department.

Lack of proper layers of security

- Classrooms in the main building have a layer of protection provided by a secured vestibule or a parent/visitor check in system. This check-in system is further enhanced by

the presence of more staff and adults located in the main building. This extra layer of protection cannot be replicated within portable buildings.

Poor structure quality of portable buildings causes concern

- While portable buildings provide shelter from minor weather events, they are not fit to withstand severe weather. As a result, all students and staff located in portable buildings are moved into the main building when the threat of high winds/tornados is present. This disrupts classroom instruction and adds safety risks to students and staff moving during bad weather events.

Lack of access control

- When a student needs to move from a portable building to the main building, entrance via badge access is required. This has the possibility of making students a target of anyone wanting to gain access to the school for ulterior motives.

Portable buildings may house more at risk populations

- Classrooms located in portables may be used to educate more vulnerable populations such as child daycares, students with special mobility, functional, behavioral needs, and other populations that by nature are more vulnerable to threats and hazards in general. The distance from the main building and the resources accessible in the main building can be cause for concern. There are no policies or guidelines currently to plan for the types of student populations that are assigned to portable buildings.

Academic Impacts

The district is striving to modernize its learning environments to support the Six C's – collaboration, communication, connection, cultural proficiency, creativity, and critical thinking. Although current studies show minimal, if any, impact on academic achievement for students who are taught in portables compared to their peers taught in a school building – portable classrooms are a less desirable option for learning experiences.

Fewer opportunities for collaboration and flexibility in learning techniques

- The isolation of portable classrooms from other classrooms limits opportunities for student and staff collaboration.

Loss of outdoor space for learning and physical education

- Portables often take up valued outdoor space, decreasing or eliminating the ability of some campuses to have authentic outdoor learning opportunities. Due to the smaller size of an elementary school campus, the track and outdoor play area are often impacted.

Exposure to weather conditions

- During inclement weather, students are exposed to rain, cold and extreme heat during transitions between classes and to and from lunch. Although elementary portables have restrooms, most of the middle and high school portables do not, increasing the weather exposure during restroom breaks.

Reduced classroom size

- The difference between the available space in a portable and the recommended space in the AISD's Educational Specifications and TEA will greatly reduce the flexible use of space for both kinesthetic and modernized learning for classes held in portables.

- The size of the classrooms within a portable range from 728-768* square feet, which do not meet the 2017 Ed Specs of 800-850 square feet.
**Square footage varies based on whether restrooms are located within the portable*
- Additionally, the Texas Education Code (§61.1033) recommends that elementary classrooms (of 22 students) have a minimum of 800 square feet and that secondary classrooms (of 25 students) have a minimum of 700 square feet. Most of the district's secondary schools have class sizes larger than 25.

Sustainability and Energy Impacts

Portable classrooms do not support the standards set forth in the district's Ed Specs for green building design that enhances engaging and effective learning environments. The levels of air quality, thermal comfort, daylighting, and acoustic performance that the district wishes to provide for students and educators is challenging with portables, and the life-cycle environmental impact of portable classroom materials is also a concern.

The Environmental Protection Agency has additional information on portable classrooms: <https://www.epa.gov/iaq-schools/maintain-portable-classrooms-part-indoor-air-quality-design-tools-schools>)

Health Conditions - California Case Study

A 2004 study and report to the California legislature regarding environmental health conditions in portable classrooms identified the following:

- 60% of teachers in portables indicated they turn off the ventilation system at times due to excess noise; 23% of teachers in traditional classrooms reported doing this.
 - Complaints of stuffy room air usually result from the HVAC not being operated properly.
- A substantial portion of unoccupied classrooms (50% portables, 38% traditionals) had measured noise levels exceeding the outdoor nuisance standard of 55 decibels used by some California cities. It is excessive noise levels that lead some teachers to turn off the HVAC systems.
- Portables had more HVAC problems than traditionals, including higher rates of dirty air filters (40% vs. 27%), blocked outdoor air dampers (11% vs. 3%), and poor condensate drainage (59% vs. 12%) which can lead to microbial contamination.
- 27% of portables and 17% of traditionals experienced temperatures below ASHRAE's thermal comfort standards for the heating season.
- Portable classrooms had slightly higher relative humidity than traditional classrooms.
- Portable classrooms had somewhat lower lighting levels than traditional classrooms.
- [For particulate matter], total particle counts were similar for both types of classrooms for PM10 and PM2.5 size ranges, but the highest levels were seen in portables. / Portables often are sited with their ventilation units and air intake facing roadways and parking lots, which may account for the higher counts in some of the portables.

The complete report can be viewed at: <https://ww3.arb.ca.gov/research/apr/reports/l3006.pdf>

Increased District M&O Expenses

- Portables that are not connected to an existing electrical supply require an additional utility account and clean community fees of \$465 annually. The total of these extra costs throughout the district is currently over \$120,000 annually (2019-20 school year).

- Portable classrooms do not have programmatic thermostats and the district's Service Center does not have the ability to remotely control and monitor HVAC systems.

Two recommendations the district should consider to reduce M&O costs include:

- Investigate the installation of internet connected thermostats, for those portables that are expected to remain in place for one to two years minimum to ensure there is a return on investment.
- Assess the feasibility of connecting multiple portables (up to 8) to a single meter, as has been done at some campuses, to reduce utility account fees.

Air Quality and Heating and Air Conditioning Unit Issues

Due to the noise from the HVAC systems and the lack of centralized controls, teachers often turn off the heating and air conditioning units within portables. Several studies have shown that adequate ventilation through the HVAC system is difficult to maintain when this occurs.

Reduction Goals

Portables should be removed from a campus when:

- Additional permanent capacity for student instruction is available due to
 - new construction,
 - a decline in enrollment, or
 - an increase in the number of students taking courses offsite or through digital learning.
- The portable is vacated due to a loss of community program.
- The condition of the portable is rated as failing.
- A major investment is required for repair (cost-benefit analysis).

Remove 25% of portables by 2022

The goal of a 25% reduction is based on an estimated 100 portables to be removed due to the 2017 bond modernization projects, plus additional failing portables and a small number of portables that are no longer needed on campuses.

- Portables that are classified as failing, but are needed on the campus to provide necessary space for students or programs, should be repaired or replaced. The Construction Management Department (CMD) will re-assess any portable that was determined to be in failing condition, and repair, remove, or replace it to ensure that no student is in an unsafe space.
- Removal of portables not associated with a bond project is dependent upon funding as currently, there is no M&O funding allocated specifically to the removal and demolition of portables.
- Reduction goals should be re-evaluated with the next major FMP Update.
- The potential removal of portables should be discussed during the development of annual campus improvement plans (CIPs).

Management Guidelines

Coordination between campuses and Maintenance Department

Campuses and the Maintenance Department should work together on requests to repair portables (work orders). Campuses must be diligent in requesting repairs for issues such as locks, accessibility, and heating and air that impacts the health and safety of students and teachers.

When a project request is received that is beyond the scope of the district's maintenance team, the following considerations should be evaluated to determine whether money should be spent to repair or replace a portable:

- Verify the portable use is consistent with the portables use guidelines.
- If the use is consistent with the guidelines, determine whether there is space available within the permanent structure for the use.
- If no space is available within the permanent structure – examine the cost to determine if the portable should be repaired or replaced.
- If the use does not meet guidelines, schedule for removal (dependent on funding) or shutter until funding becomes available.

Budgeting (non-bond dollars)

The district's Construction Management Department identified several approximate costs associated with the set-up, relocation and demolition of portables:

- Cost to purchase new: \$100,000 – 150,000
- Cost to lease (includes set-up, removal, and maintenance): \$1,000 – 2,500/month
- Relocation: \$25,000 – 30,000

Currently, there is no M&O funding allocated specifically for the replacement or removal of portables. This continues to restrict the district's ability to purchase new portables as the inventory continues to age and conditions decline. Additionally, it limits the number of portables that could be removed from campuses, when no longer needed, as bond funds can only be used to remove portables when it is part of a modernization project.

- The District should plan for the replacement and removal of portables each fiscal year by the allocation of M&O funding designated for these purposes.
 - A portable replacement cycle, including thresholds, should be established by district.
- Strategic efforts to take advantage of cost savings opportunities should be considered and bond funds should be leveraged when possible.
- District should explore the possibility to sell surplus portables to prospective buyers.

Portable request process

- District shall develop a formal process to request the addition of a portable to a campus and establish a review team.
- Approval of portable relocations should be consistent with the portable use guidelines.

Portable improvement request process

- District shall establish a process for school communities to invest in the beautification of portables (e.g. painting). This could be incorporated into the Schoolyard Improvement Project process.

Leasing guidelines

The remaining long-term leased portables should be replaced as district-owned portables become available – first look at highest dollar leases, worst condition, and those easily removed due to their location on the site. The district should only lease portables to satisfy the following conditions:

- Swing space for schools receiving modernization or renovation projects.
- Emergency situations.

- Special-sized portables that meet either the special needs of a constrained site, or use (gym, cafeteria).

Alternative solutions

- The district should explore alternative solutions to the current stock of portables, such as modular structures that could contain multiple classrooms.

Use Guidelines

Portables do serve a purpose, however, the uses within them should be carefully considered. Portable uses should be approved by a committee with representatives from School Leadership, Planning & Asset Management, Construction Management, and School, Family & Community Education departments.

Portables are an acceptable use of space for the following circumstances:

- To temporarily address overcrowding.
 - If demographic projections indicate that overcrowding will be a long-term issue, then boundary changes should be evaluated as the first solution.
 - If a boundary solution is not identified, additional capacity would need to be funded through a bond program.
- To provide space temporarily for new or enhanced academic programs when there is not available classroom space within the permanent structure.
- To address emergency situations (flood, fire, etc.).
- To provide swing space when a campus is being renovated or modernized.
- To provide space for approved campus and community resources (e.g. family resource centers, daycares, non-profit leases, etc.). This should only be considered if campus and district safety and security protocols are maintained.

Portable Removal Decision Tree

Prioritized removal of portables should include:

1. Vacated portables due to bond modernization projects, when
 - a. construction of additional capacity allows for the removal of portable classrooms, and
 - b. bond funding can be utilized for the removal of portables.
2. Portables in failing condition.
3. Vacated portables not associated with bond modernization projects, when
 - a. a portable is no longer needed due to a decline in enrollment, or
 - b. a program is no longer supported,
 - c. or termination of a lease by an outside entity.
4. Portables used for a function that is not in line with the portable use guidelines.

Implementation

- The Construction Management Department and School Leadership should work together to lead the implementation of the outlined strategies.
- Implementation should begin upon Board approval and be assessed annually.

Summary of Recommendations

- Reduce the number of portables for student instruction by approximately 25% by 2022.
- Remove or repair all portables rated as “failing” by 2022.

- Improve coordination between campuses and the Maintenance Department to ensure that portables are properly maintained.
- Establish a portable replacement cycle.
- Develop a district committee with representation from Construction Management, School Leadership, Planning & Asset Management, and Schools, Family & Community Education departments to manage the use and relocation of portables.
- Request that M&O funding be allocated for the removal and repair of portables annually.
- Investigate ways to reduce M&O costs specific to utility costs.
- Research and evaluate the use of alternative types of modular, temporary buildings.
- Re-evaluate reduction goals at the time of the next major FMP update.