

# Pelham Elementary School Capacity Analysis

# **Summary of Findings**

October 5, 2020

#### 1. Introduction

Harriman was retained by the Pelham School District to evaluate the Pelham Elementary School's (PES) capacity and the possibility of accommodating a full day kindergarten program. This analysis considered room use in both educational spaces and common use spaces such as the cafeteria, gymnasium, and library.

The school's capacity can be considered a function of several factors. These are primarily in the capacity of classrooms and core common use spaces and are summarized in the table below.

Criteria	Calculated Capacity
1. Building Area	785
2. General Classroom	883
3. Classroom by Grade	784
4. Food Service	735/1226
5. Library/Media	843
6. Physical Education	-
Current Enrollment	714

Table 1. Pelham Elementary School - Capacity by Function.

As the table demonstrates, the calculated capacity limit of the elementary school is governed by the number of general use classrooms and the grade levels assigned to them (see **Table 4**, **Classroom by Grade Capacity**). Given the current use, the calculated capacity limit is 784 students in 35 classrooms -32 in PES and 3 in the SAU office building.

We believe there is enough capacity within the existing building to accommodate a full day kindergarten program based on the following:

- It appears that it may be possible to reduce the number of classrooms and still accommodate students within PSD class size guidelines. As an example, the current enrollment of 118 and 115 students in grades 4 and 5 appear to be able to be accommodated in 5 classrooms instead of the currently assigned 6 classrooms.
- Additionally, there are several spaces identified in Section 3 of this report originally designed as classrooms that have been converted to different uses such as Room 201 that is currently used as a meeting space. There may be alternate rooms or ways to accommodate these functions and convert these rooms back to general classrooms.

#### 2. School Capacity by Building Area

A general consideration for the capacity of a school is the overall school design guidelines for the gross area of the building. Regional standards for the area per student for an elementary school are 140 square feet (SF) per student. Using this measure, the capacity of PES is approximately 785 students.

Total Area: 109,924 SF

Area per student: 140 SF

Capacity by Area: 785 Students

# 3. General Classroom Capacity

The general classroom capacity of the Pelham Elementary School, as tabulated here, analyzes those rooms currently assigned as general purpose, grade-level classrooms, and the theoretical capacity with respect to NHDOE guidelines. Note that this is a theoretical capacity of 100 percent utilization with class sizes larger than Pelham School District guidelines.

Grade	Number of General Classrooms	Classroom Capacity (NHDOE)	Capacity (NHDOE)
PK	3	18	90
K	1	18	18
1	7	25	125
2	6	25	150
3	6	25	200
4	6	25	150
5	6	25	150
SUBTOTAL	35		883

Table 2. General Classroom Capacity – Pelham Elementary School.

In addition to the classrooms in the Pelham Elementary School, there are 3 kindergarten classrooms in the SAU building.

	Number of Classrooms	Classroom Capacity (NHDOE)	Capacity (NHDOE)
Grade			
К	3	20	60
TOTAL	38		943

Table 3. General Classroom Capacity – SAU Kindergarten Classrooms.

Classroom capacity is also dependent on the number of students per grade and the district class size policy. For the Fall 2020 school year, enrollments per grade and corresponding number of classrooms are as follows:

Grade	Number of Students	PSD Class Size Guideline	Classrooms Required	Capacity by Grade
PK (1/2 Day)	41	16	3 (2.5)	48
K (1/2 Day)	75	18	4 (4.2)	90
1	115	22	6 (5.2)	132
2	124	22	6 (5.6)	132
3	124	22	6 (5.6)	132
4	118	25	5 (4.7)	125
5	115	25	5 (4.6)	125
TOTAL	714		35	784

Table 4. Classroom by Grade Capacity.

There are a number of rooms originally designed to serve as classrooms that have been repurposed for other uses. These include the following:

Room 106: Health.

Room 201: In-house meeting room.

Room 206: Reading Specialist, Case Managers (1-3).

Room 302: Service Room.

Room 311: PT/OT Service Room for PK/K.

Room 403: Reading Specialist, Case Managers (4-5).

Room 404: Title 1.

Room 514: SEL (PK-5).

Room 515: PALS (K-3).

It is understood that many of these are necessary functions that have evolved since the planning and construction of the school in 2001. During this time, the number of students has declined, but the space needs for special services and programs has increased.

To accommodate the full day kindergarten program at the current enrollment level of 75 students would require a total of 5 classrooms – one more than the current count. By offering full-day kindergarten, it is expected that the enrollment would increase to a size similar to other grade level cohorts (120 +/-). This would require 7 classrooms to accommodate, 3 more than the current allotment.

We believe this could be accommodated in the existing building, but this assumption should be further evaluated with a space planning test-fit to understand the possible redistribution of programs in existing repurposed classrooms.

#### 4. Food Service

The DOE does not explicitly specify the size of food service areas. General design recommendations governing the size of elementary school cafeterias are the following:

- 15 Square Feet/student for 33% of the design capacity of the school. The Pelham Elementary School Cafeteria is 3,677 SF resulting in a design capacity of 735 students for 3 lunch periods.
- Pelham Elementary School serves grade levels 1-5 separately for a total of 5 lunch periods. This results in a calculated capacity of 1,226 students.

# 5. Library/Media

The Library media guidelines per Administrative Rules Ed 321.10(j) require a minimum of 1,800 Square Feet for the Library/Media Center. The recommended size is governed by the area allocated for Reading Room/Stacks using the formula of 35 SF/student for 10% of the design capacity of the school.

The Pelham Elementary School Reading Room/Stacks area is 2,940 resulting in a design capacity of **843 students**.

#### 6. Physical Education

DOE standards for Physical Education are not based on design capacity. The guidelines state a minimum of 700 square feet and recommend an area of 70 ft by 100 ft (7,000 SF). Bleacher and seating capacity is sometimes a consideration in determining a location to hold an assembly of the entire student body. Pelham Elementary School currently has a Gymnasium of 6,114 SF and bleacher capacity of approximately 200.