DRAFT

Souhegan High School and Annex

Building Capacities

New Hampshire

November 2025

DRAFT AS OF 11/19

Harriman

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Executive Summary

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A. EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

OVERVIEW

This capacity study evaluates the spatial capacity of Souhegan High School and Annex, using square footage data derived from floor plans of each building and the NHDOE's allotted square footage per student per classroom to determine the current school's classroom capacity while meeting the students and districts programmatic needs. The goal of this study is to provide a clear understanding of the district's ability to accommodate students effectively while identifying areas that may require adjustments in space utilization to meet the needs of the current school district population.

CAPACITY STUDY

The study brings together an overview of current programs offered at each school, and specifically highlights total square footage of spaces used for general education courses and those originally intended for general education but being used for other programs at this time.

DEFINITIONS

NHDOE Guideline Capacity - Design guideline for number of students per grade level classroom based on the classroom size guidelines provided by the New Hampshire Department of Education.

For classrooms with approximately 18-25 students, the size of the classroom is divided by 32 square feet for high school classrooms. Square footage per grade level classroom should be 800 square feet based on the design guideline provided by the NHDOE.

Science labs square footage per pupil are as follows:

- 50 net square feet per pupil is required by Ed 320 for separate labs.
- 60 net square feet per pupil is required by Ed 320 for combination lab-classrooms.
- It is recommended that separate labs be at least 900 square feet and that combination lab-classrooms be at least 1250 square feet.
- Maximum of 24 laboratory workstations, at least one of which shall be suitable for students with disabilities and in compliance with RSA 275-C.

The size of the cafeteria should be based on 12-15 square feet per student for the maximum number of students at any given lunch period.

PER NHDOE

Educational Capacity: The sum of the maximum number of students that can be simultaneously instructed in every educations space of the building using the minimum space allocations specified in Ed 321.10. In an existing building, educational capacity is measured dimensionally. In a proposed facility, educational capacity is determined by dividing the design capacity by the utilization rate.

A. EXECUTIVE SUMMARY (CONTINUED)

ASSUMPTIONS

We have calculated the capacity by using the New Hampshire Department of Education (NHDOE) guidelines, which indicates that a high school classroom should be 800 sf or 32 sf/student for general education classrooms and 60 sf/student for combination lab-classrooms for science.

This study uses the following for art and music:

- Maximum number of 24 students (similar to science) for spaces above 900 sf and 50 sf/student.

For PE we have used 25 for the maximum number of students.

EXAMPLE CALCULATION

NHDOE Guideline's Classroom Size: 800 sf or 32 sf per student (provided by the NH Department of Education)

Actual classroom size [#127] : [varies] sf (measured from floor plan)

Calculated Capacity: 815 sf ÷ 32 sf per student = 25 student classroom capacity

A. EXECUTIVE SUMMARY (CONTINUED)

FIGURE A1: CAPACITY EVALUATION CRITERIA

GRADE LEVEL	NHDOE GUIDELINE'S CAPACITY (STUDENTS)	NHDOE GUIDELINE'S CLASSROOM SIZE (SF)	NHDOE GUIDELINE'S SQUARE FOOT (SF) PER STUDENT
9TH-12TH GRADE	18-25	800	32
COMBINATION SCIENCE LAB-CLASSROOM	MAX 24	MIN 1,250	60

Assumed numbers based on NHDOE guidelines for other spaces that require more room than a typical classroom.

	NHDOE GUIDELINE'S CAPACITY (STUDENTS)	NHDOE GUIDELINE'S CLASSROOM SIZE (SF)	NHDOE GUIDELINE'S SQUARE FOOT (SF) PER STUDENT
ART/ MUSIC	MAX 24	MIN 900	50
GYM	MAX 25	N/A	N/A

A. EXECUTIVE SUMMARY (CONTINUED)

FIGURE A2: SECONDARY SCHOOL ENROLLMENT CAPACITY FORMULA

Secondary School Capacity = Sum of (Number of all classrooms X Students assignable to each type of classroom) X Optional utilization rate

FIGURE A3: SCHOOL CAPACITY SUMMARY

The following figure shows the capacity of the school utilizing the above noted calculation methods. Refer to figure B1 for more information.

BUILDING	CALCULATED NHDOE CAPACITY (STUDENTS)	ENROLLEMENT (OCTOBER 2025)	CALCULATED NHDOE CAPACITY COMPARED TO ENROLLMENT*
Souhegan High School and Annex	1,152	712	+440
*Enrollment Capacity (per NCES) 75%-90%***			
75%	*864*		*+152*
85%	*979*		*+267*
90%	*1,036*		*+342*

Calculated Capacity - Based on sf/student using NHDOE Guideline's classroom size.
* A "+" represent excess capacity in building or under utilization, a "-" represents a capacity deficiency for amount of students enrolled.
** Per NCES Nation Center for Educational Statistics:
"Enrollment capacity is also calculated differently in different types of schools. In a high school, both basic classrooms and specialty instructional spaces (such as art or music rooms) are counted toward capacity because regular classrooms are not left unoccupied while students get art or music instruction. Thus the formula for determining secondary school capacity is the sum of capacity for each type and number of classrooms multiplied by an optional utilization rate, which may range from 75 percent to 90 percent. An optional utilization rate recognizes the impossibility of scheduling classes so as to fully utilize every classroom every period. For example, an advanced science classroom may be able to accommodate 20 students, but there may only be 16 students in the 5th period class. Even if some other classes are over-capacity, the actual school utilization rate is never 100 percent.
Enrollment capacity for a secondary school is calculated as the sum of the standard class size assigned to each type of classroom in the school times the number of classrooms of this type. Thus the capacity of two identical school buildings could be different if they offer different types of programs or are subject to different capacity limitations set by state law or teacher contracts." The calculation of secondary school capacity is illustrated in Figure A3 below.

A. CONCLUSION

Per figure A3, based on the area of the school, the capacity without factoring scheduling is 1,152 students.

The 75-90% illustrates an optional utilization rate recognizing the impossibility of scheduling classes so as to fully utilize every classroom every period. This is shown in Figure A3 as This illustrates a range of 864 to 1,036.

Currently, there are several classrooms that have more students than outlined by the NHDOE sf/student.

However, programming is a key element. On sheets 18-23 you will see the utilizaiton of each space. We have put an asterisk in each room that has a semester that has greater than 50% capacity. The thought process being that those rooms and programs should be looked at to determine if sharing of space is achievabile to free up any classrooms for additional programs and/or students. We have identified 5 rooms that have greater than 50% capacity for one semester or more. The district should explore if any of these programs can share space to free up one to two spaces.

Plan Diagrams & Capacity Tables

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Abbreviations

KEY

ENG (ENGLISH)

YR1 WRITING INT	FIRST YEAR WRITING INTENSIVE
LAW&JUST ENG	SEMINAR CONSTITUTIONAL LAW&JUSTICE:ENG
SELF&SOC ENG	SELF & SOCIETY: ENGLISH
AMER STD ENG	AMERICAN STUDIES: ENGLISH
ENG MODS	ENGLISH MODULES
ENG FILM	SEMINAR FILM: ENGLISH
WRLD ENG	WORLD STUDIES: ENGLISH
SEM GC ENG	SEMINAR GLOBAL CITIZENSHIP: ENGLISH
AP LIT&COMP	ADVANCED PLACEMENT LITERATURE & COMPOSITION
CREAT WRIT	CREATIVE WRITING
SEM ETH ENG	SEMINAR ETHICS: ENGLISH

SS (SOCIAL STUDIES)

SELF&SOC SS	SELF &SOCIETY: SOCIAL STUDIES
CRNT ISSUES	CURRENT ISSUES
APUSH	AP U.S. HISTORY
LAW&JUST SS	SEMINAR CONSTITUTIONAL LAW&JUSTICE:SS
UND PSYCH	UNDERSTANDING PSYCHOLOGY
AMER STD SS	AMERICAN STUDIES: SOCIAL STUDIES
SS ECON	ECONOMICS
HUMANS SUB	HUMANS AS SUBJECTS
SEM SS	SOCIAL STUDIES MODULES SEMESTER
INTRO PHILO	INTRODUCTION TO PHILOSOPHY
WRLD SS	WORLD STUDIES: SOCIAL STUDIES
SEM ETH SS	SEMINAR ETHICS: SOCIAL STUDIES

ACS	ACADEMIC SUPPORT
SEN PROJ SUPPORT	SENIOR PROJECT SUPPORT

TECH

ANIMAT	ANIMATION
GAME DEV	GAME DEVELOPMENT
TECH DIGI LEAD	DIGITAL LEADERSHIP
AP COMP SCI	ADVANCED PLACEMENT COMPUTER SCIENCE PRINCIPLES
PROG A	PROGRAMMING A: PYTHON
PROG B	PROGRAMMING B: JAVA
ADV PROG	ADVANCED PROGRAMMING

SPED (SPECIAL EDUCATION)

ALT SUP S1	ALTERNATIVE SUPPORT SEMESTER 1
SPED TRANS	SPECIAL EDUCATION TRANSITIONS

BUS (BUISNESS)

BUS ADVT	ADVERTISING
BUS MARKT	MARKETING
PRSNL FINANCE	PERSONAL FINANCE
BUS ENTRE	ENTREPRENEURSHIP

WEL (WELLNESS)

UNI COOK	UNIFIED COOKING
WEL 10-12	WELLNESS 10-12
WEL 9 ADV	WELLNESS 9 SOUHEGAN ADVENTURE
HEALTH	HEALTH

ESOL (RM 103 ONLY)	ENGLISH FOR SPEAKERS OF OTHER LANGUAGES

READING (RM 204 ONLY)

SF (SABER FLEX)

SF GR9	SABER FLEX GRADE 9
SF	SABER FLEX

MUS (MUSIC)

C BAND	CONCERT BAND
C CHOIR	CONCERT CHOIR
MUS COMB	MUSIC COMBOS
INTRO POP	INTRODUCTION TO POPULAR MUSIC
MUS P&E	MUSIC PRODUCTION AND ENGINEERING
THEATRE II	
ADV MUS P&E	ADVANCED MUSIC PRODUCTION AND ENGINEERING
THEATRE I	
MUS THEORY	MUSIC THEORY AND COMPOSITION

Abbreviations

MAT (MATH)

PC MATH	PRE-CORE MATH
C MATH 2	CORE MATH 2
C MATH 10-12	CORE MATH GRADES 10-12
C MATH2 9	CORE MATH 2 GRADE 9
C MATH1 9	CORE MATH 1 GRADE 9
C MATH 3	CORE MATH 3
INTRO CALC	INTRODUCTION TO CALCULUS
MAT SUP	MATH SUPPORT
AP STAT	ADVANCED PLACEMENT STATISTICS
AP CALC AB	ADVANCED PLACEMENT CALCULUS AB
AP CALC BC	ADVANCED PLACEMENT CALCULUS BC
PRECALC	PRECALCULUS
DATA SCI&STAT	DATA SCIENCE AND STATISTICS
FINANCE ALG	FINANCIAL ALGEBRA

WL (WORLD LANGUAGE)

FRENCH A	FRENCH NOVICE A
FRENCH B	FRENCH NOVICE B
CONV SPANISH	INTERMED CONVERSATIONAL SPANISH
CONV FRENCH	INTERMED CONVERSATIONAL FRENCH
INT SPANISH B	SPANISH INTERMEDIATE B
INT FRENCH B	FRENCH INTERMEDIATE B
INT FRENCH A	FRENCH INTERMEDIATE A
INT SPANISH A	SPANISH INTERMEDIATE A
SPANISH A	SPANISH NOVICE A
SPANISH B	SPANISH NOVICE B
AP FRENCH	ADVANCED PLACEMENT FRENCH
AP SPANISH	ADVANCED PLACEMENT SPANISH

SCI (SCIENCE)

AP CHEM	ADVANCED PLACEMENT CHEMISTRY
CHEM	CHEMISTRY
ADV ENGINEER	ADVANCED ENGINEERING
ENGINEER	ENGINEER SCIENCE
ROB SCI	ROBOTIC SCIENCE
FORENSIC SCI	FORENSIC SCIENCE
STEAM 3D MOD	STEAM: 3D MODELING AND DESIGN
EARTH SCI	EARTH SYSTEMS SCIENCE
PHYS	PHYSICS
AP PHYS 1	ADVANCED PLACEMENT PHYSICS 1
AP PHYS C	ADVANCED PLACEMENT PHYSICS C
ANAT & PHYSI	ANATOMY & PHYSIOLOGY
LIV SYST SCI	LIVING SYSTEMS SCIENCE
AP BIO	ADVANCED PLACEMENT BIOLOGY
MARINE SCI	MARINE SCIENCE
SEM GC SCI	SEMINAR GLOBAL CITIZENSHIP: SCIENCE
AP ENV SCI	ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE

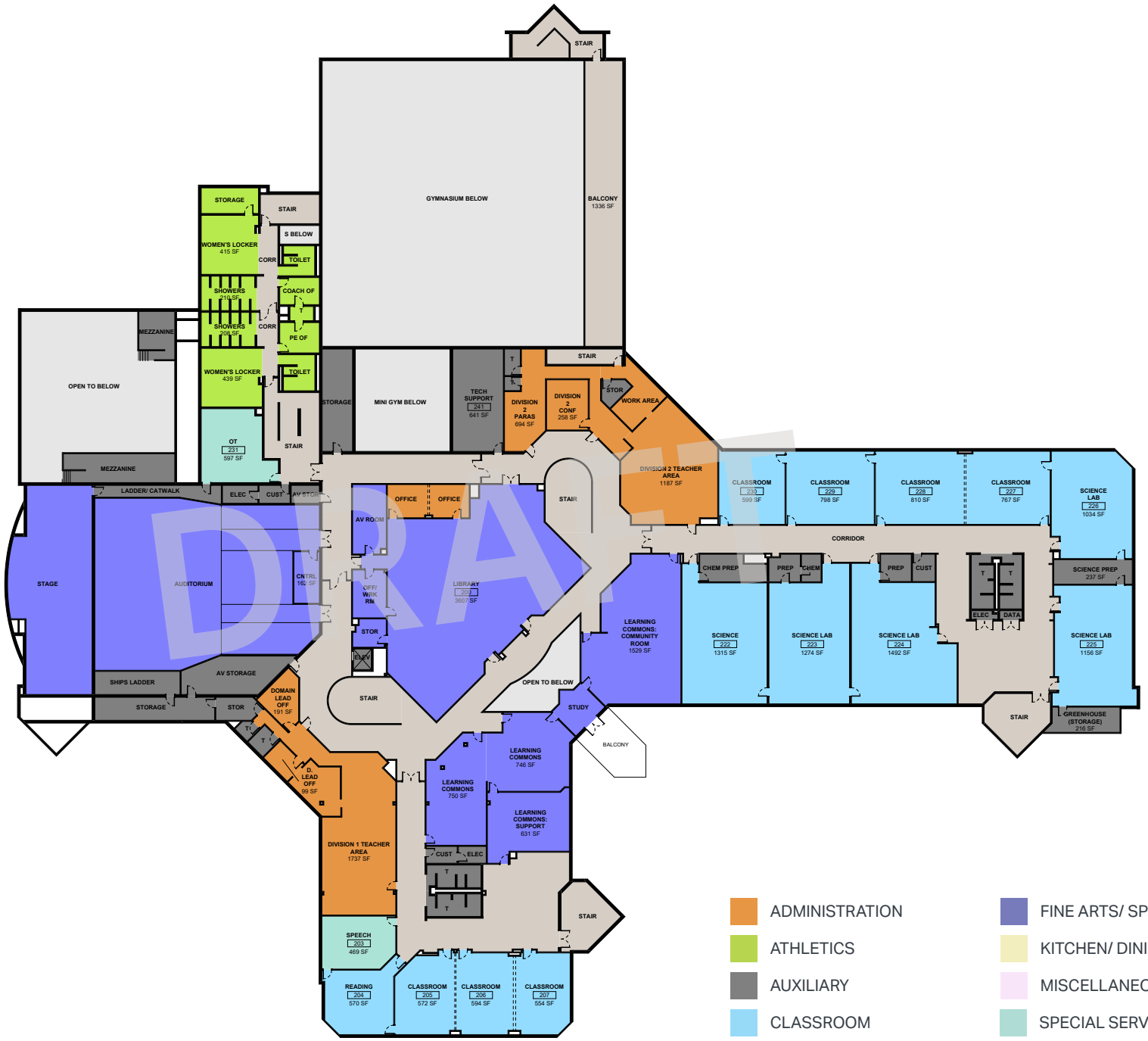
ART

VA EXP	VISUAL ARTS EXPERIENCE
DRW	DRAWING
P1	DIGITAL PHOTO 1
P2	DIGITAL PHOTO 2
ADV PH	ADVANCED PHOTO
VA FILM	SEMINAR FILM: VISUAL ARTS
VP	VIDEO PRODUCTION SEMESTER
ADV VP	ADVANCED VIDEO PRODUCTION SEMESTER
CERAMICS I	CERAMICS 1
CERAMICS II	CERAMICS 2
ADV ART	ADVANCED STUDIO ART
AP ART	ADVANCED PLACEMENT ART AND DESIGN
PAINTING	PAINTING

Souhegan High School

First Floor Plan

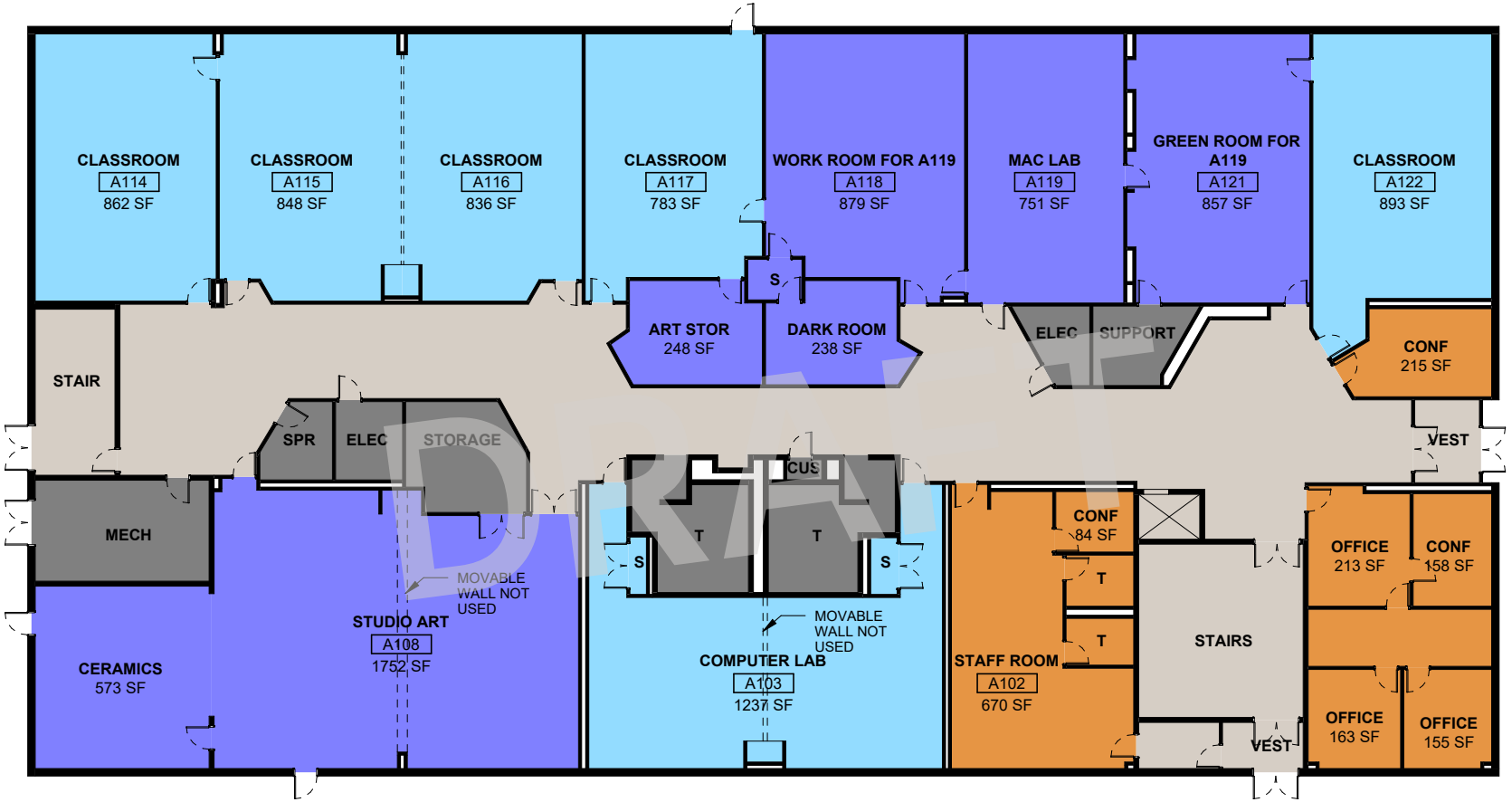
Souhegan High School



Second Floor Plan

HARRIMAN

Annex Building



ADMINISTRATION
ATHLETICS
AUXILIARY
CLASSROOM
EGRESS
FINE ARTS/ SPECIALS
KITCHEN/ DINING
MISCELLANEOUS
SPECIAL SERVICES

First Floor Plan

Annex Building

Second Floor Plan

HARRIMAN

Souhegan High School - First Floor

Classroom Uses and Capacities

Souhegan High School - First Floor

* Indicates spaces has greater than 50% capacity for one or more semesters and should be reviewed to determine if it can share space with another program.

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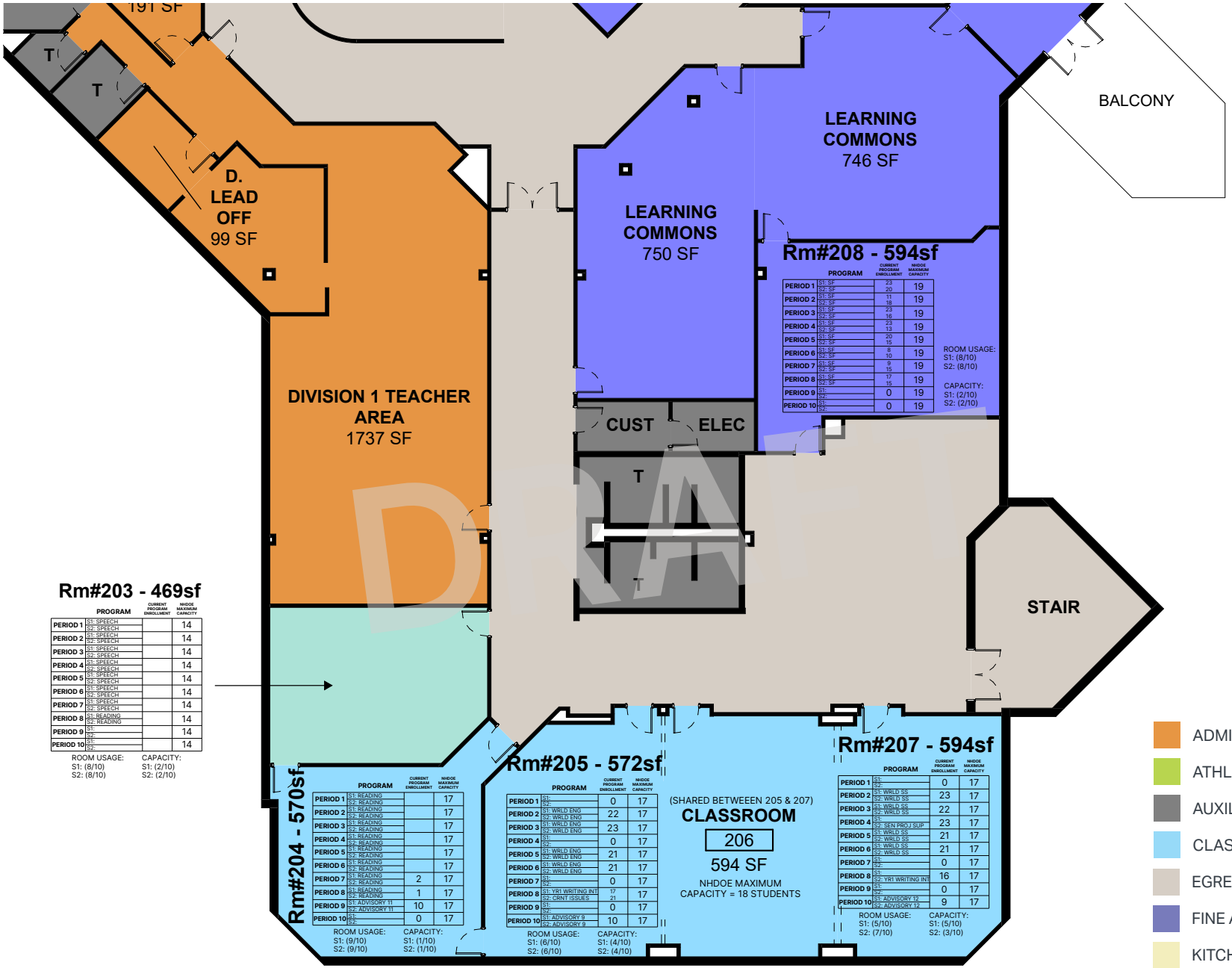
Classroom Uses and Capacities

HARRIMAN

Souhegan High School - Second Floor

Classroom Uses and Capacities

Souhegan High School - Second Floor



Classroom Uses and Capacities

Annex Building - First Floor

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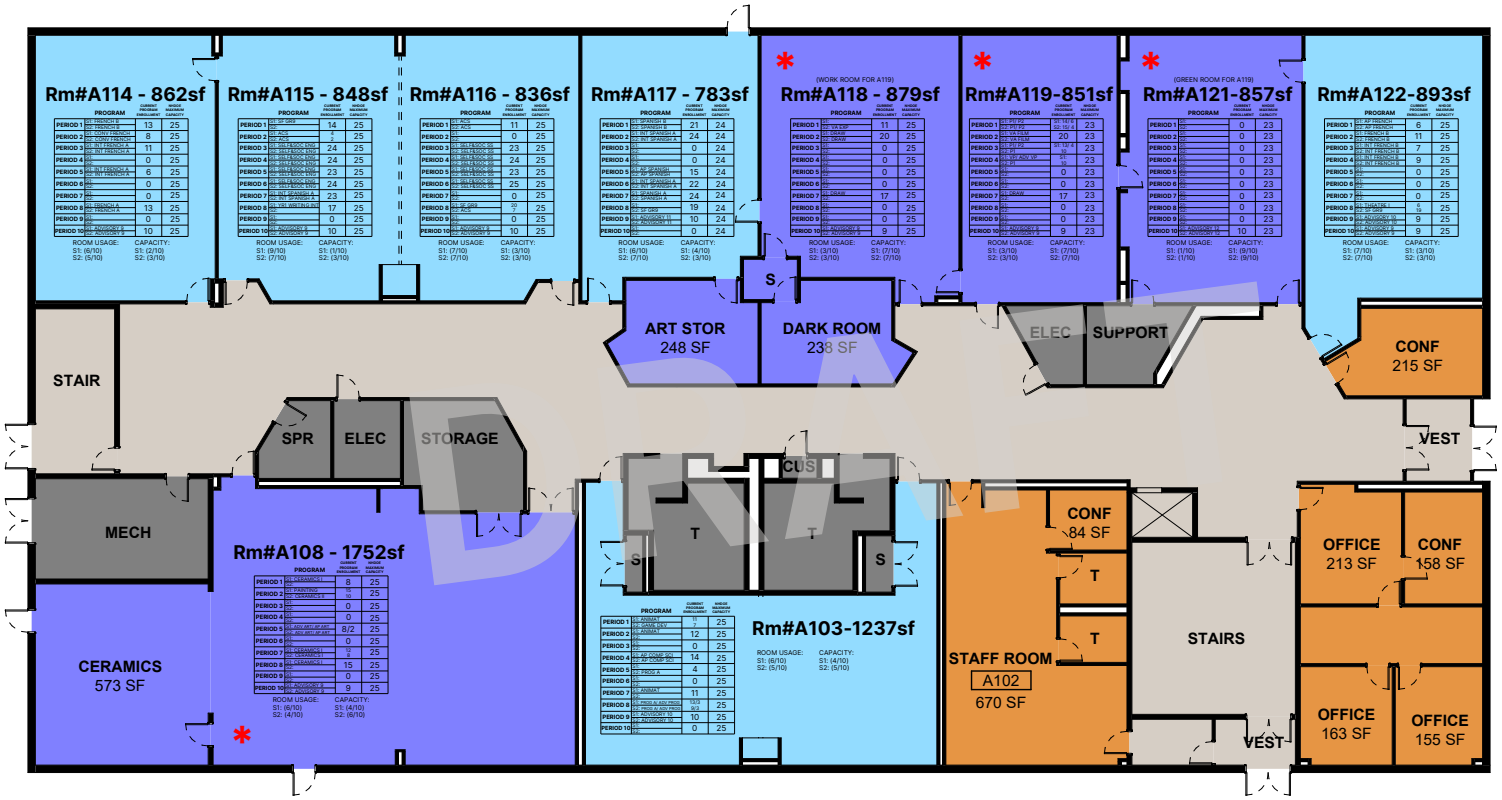

ADMINISTRATION
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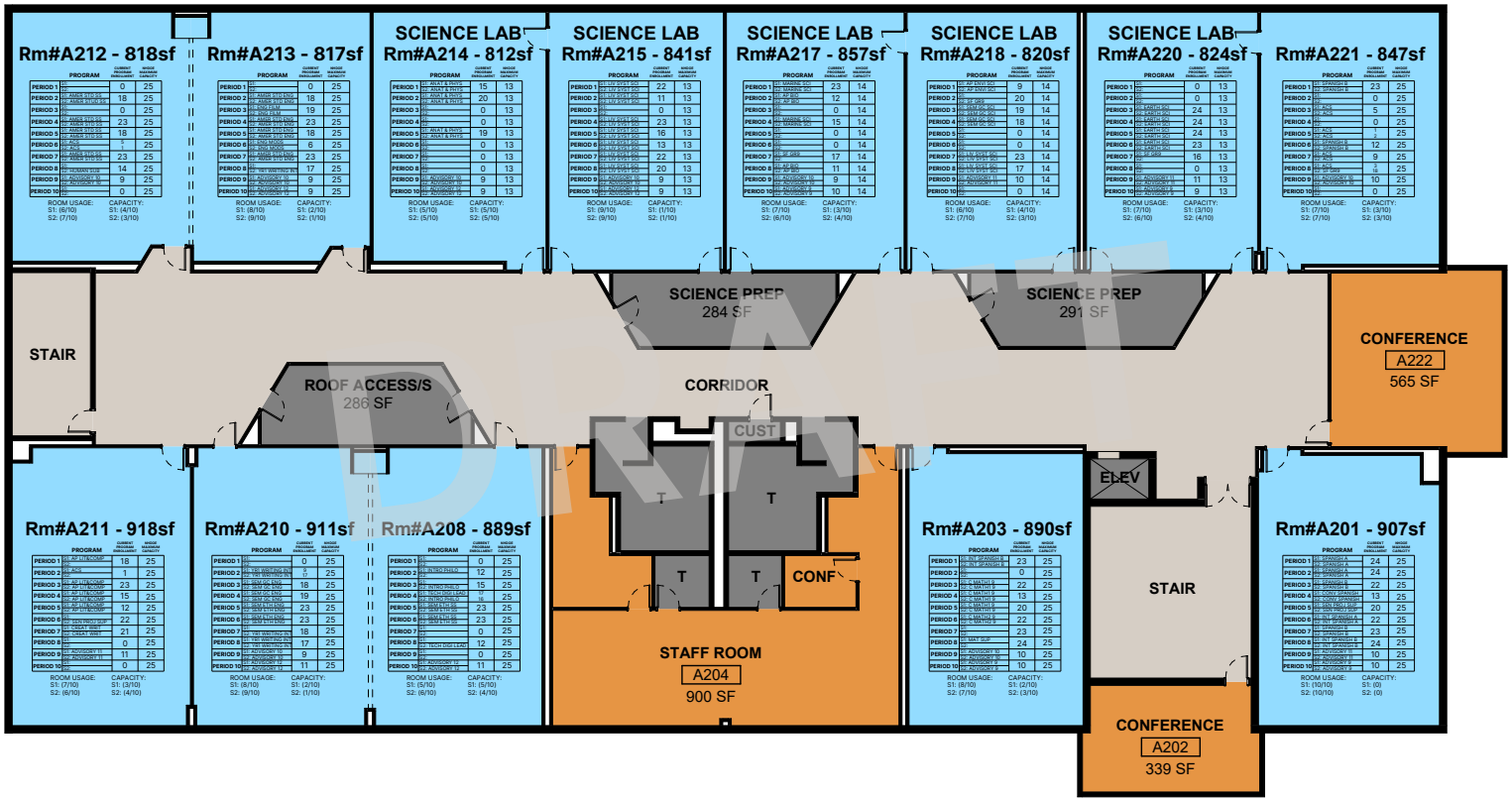
Classroom Uses and Capacities

Annex Building - Second Floor

* Indicates spaces has greater than 50% capacity for one or more semesters and should be reviewed to determine if it can share space with another program.



ADMINISTRATION
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SPECIAL SERVICES

Classroom Uses and Capacities

HARRIMAN

Capacity Data

FIGURE B1: CAPACITY DATA

NUMBER	CURRENT USE	ROOM FUNCTION	ROOM AREA	CALCULATED DOE CAPACITY (CAPPED PER FIGURE A1) CLASSROOMS = 32SF PER STUDENT SCIENCE CLASS/LAB = 60SF PER STUDENT
CLASSROOMS				
101	CLASSROOM	CLASSROOM	715 SF	22
102	CLASSROOM	CLASSROOM	599 SF	18
104	CLASSROOM	CLASSROOM	611 SF	19
105	CLASSROOM	CLASSROOM	612 SF	19
106	CLASSROOM	CLASSROOM	608 SF	19
107	CLASSROOM	CLASSROOM	572 SF	17
115	FACS (KITCHEN)	CLASSROOM	1003 SF	31 (CAPPED 24)
116	SPED TRANSITIONS	CLASSROOM	795 SF	24
124	SPED TRANSITIONS	CLASSROOM	757 SF	23
125	SPED ALT SUPPORT	CLASSROOM	775 SF	24
126	CLASSROOM	CLASSROOM	884 SF	27 (CAPPED 25)
127	CLASSROOM	CLASSROOM	815 SF	25
128	CLASSROOM	CLASSROOM	850 SF	26 (CAPPED 25)
129	CLASSROOM	CLASSROOM	701 SF	21
130	CLASSROOM	CLASSROOM	584 SF	18
131	CLASSROOM	CLASSROOM	586 SF	18
132	SPED TRANSITIONS	CLASSROOM	1192 SF	37 (CAPPED 24)
167	CHOIR	CLASSROOM	1513 SF	47 (CAPPED 24)
168	BAND	CLASSROOM	2209 SF	69 (CAPPED 24)
205	CLASSROOM	CLASSROOM	572 SF	17
207	CLASSROOM	CLASSROOM	554 SF	17
220	GYMNASIUM	CLASSROOM	9882 SF	308 (CAPPED 25)
227	CLASSROOM	CLASSROOM	767 SF	23
228	CLASSROOM	CLASSROOM	810 SF	25

* Refer to Figure A1 in Executive Summary for definitions.

Capacity Data

229	CLASSROOM	CLASSROOM	798 SF	24
230	CLASSROOM	CLASSROOM	599 SF	18
A108	STUDIO ART	CLASSROOM	1752 SF	54 (CAPPED 24)
A114	CLASSROOM	CLASSROOM	862 SF	26 (CAPPED 25)
A115	CLASSROOM	CLASSROOM	848 SF	26 (CAPPED 25)
A116	CLASSROOM	CLASSROOM	836 SF	26 (CAPPED 25)
A117	CLASSROOM	CLASSROOM	783 SF	24
A118	WORK ROOM FOR A119	CLASSROOM	879 SF	27 (CAPPED 25)
A119	MAC LAB	CLASSROOM	751 SF	23
A121	GREEN ROOM FOR A119	CLASSROOM	857 SF	26 (CAPPED 25)
A122	CLASSROOM	CLASSROOM	893 SF	27 (CAPPED 25)
A201	CLASSROOM	CLASSROOM	907 SF	28 (CAPPED 25)
A203	CLASSROOM	CLASSROOM	890 SF	27 (CAPPED 25)
A208	CLASSROOM	CLASSROOM	889 SF	27 (CAPPED 25)
A210	CLASSROOM	CLASSROOM	911 SF	28 (CAPPED 25)
A211	CLASSROOM	CLASSROOM	918 SF	28 (CAPPED 25)
A212	CLASSROOM	CLASSROOM	818 SF	25
A213	CLASSROOM	CLASSROOM	817 SF	25
A221	CLASSROOM	CLASSROOM	847 SF	26 (CAPPED 25)
			CAPACITY SUB TOTAL	983

SCIENCE LABS

222	SCIENCE	SCIENCE CLASSROOM/ LAB	1315 SF	21
223	SCIENCE	SCIENCE CLASSROOM/ LAB	1274 SF	21
224	SCIENCE	SCIENCE CLASSROOM/ LAB	1492 SF	24
225	SCIENCE	SCIENCE CLASSROOM/ LAB	1156 SF	19
226	SCIENCE	SCIENCE CLASSROOM/ LAB	1034 SF	17
A214	SCIENCE	SCIENCE CLASSROOM/ LAB	812 SF	13
A215	SCIENCE	SCIENCE CLASSROOM/ LAB	841 SF	14
A217	SCIENCE	SCIENCE CLASSROOM/ LAB	857 SF	14
A218	SCIENCE	SCIENCE CLASSROOM/ LAB	820 SF	13
A220	SCIENCE	SCIENCE CLASSROOM/ LAB	824 SF	13
			CAPACITY SUB TOTAL	169
			MAX CAPACITY TOTAL	**1,152**

Per NHDOE: It is recommended that separate labs be at least 900 square feet and that combination lab-classrooms be at least 1,250 square feet.

* Refer to Figure A1 in Executive Summary for definitions.

Capacity Data

NOT INCLUDED IN CAPACITY

103	CLASSROOM	NOT INCLUDED	466 SF
117	SCHOOL STORE	NOT INCLUDED	835 SF
122	COMPUTER LAB	NOT INCLUDED	992 SF
149	WEIGHT ROOM	NOT INCLUDED	1894 SF
202	LEARNING COMMONS	NOT INCLUDED	750 SF
203	SPEECH	NOT INCLUDED	469 SF
204	READING	NOT INCLUDED	570 SF
206	CLASSROOM	NOT INCLUDED	594 SF
208	LEARNING COMMONS: SABER FLEX	NOT INCLUDED	631 SF
209	LEARNING COMMONS	NOT INCLUDED	746 SF
221	LEARNING COMMONS: LG GROUP INSTR	NOT INCLUDED	1529 SF
A103	COMPUTER LAB	NOT INCLUDED	1237 SF

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