



W.A. Hough High School



Little Diversified Architectural Consulting

FACILITY PROGRAM

HIGH SCHOOLS



Mallard Creek High School



LS3P Associates Ltd.

04 Jan 2024

LIST OF REVISIONS

Heading	Page	Revision	Rev. Date
1. Gymnasium	108	Added note to locate scoreboards on end walls behind the main goals	11/18/19
2. List of Revisions	1	Added List of Revisions to Facility Program for tracking changes	03/24/20
3. Principal's Office	78	Deleted requirement for TV connection and wall bracket	06/29/20
4. Teacher Work/Breakrm.	103	Refrigerator added (to be included in GC contract)	02/10/21
5. Health Room	87	Mini-fridge indicated to be ADA, and included in GC contract	02/10/21
6. General Science Clrm.	19	Added note re: teacher's desk; deleted counter for computers	03/26/21
7. Biology Classroom	21	Added note re: teacher's desk; deleted counter for computers	03/26/21
8. Chemistry Classroom	23	Added note re: teacher's desk; deleted counter for computers	03/26/21
9. Physics Classroom	25	Added note re: teacher's desk; deleted counter for computers	03/26/21
10. Chemistry Classroom	23	Noted gas at only 1 or 2 demo tables & prep rm. of 4 clrms. req'd	03/26/21
11. Biology Classroom	21	Noted fume hood in 1 of the 4 biology classrooms required	03/26/21
12. Band/Orchestra	28	Note added for Owner to provide current "Perf. Arts Equip. List"	06/25/21
13. Choral Classroom	31	Note added for Owner to provide current "Perf. Arts Equip. List"	06/25/21
14. Auditorium	34	Note added for Owner to provide current "Perf. Arts Equip. List"	06/25/21
15. Media Arts Classroom	47	Deleted comp. outlets, moved greenscreen, added sink, changed flrg.	06/25/21
16. Mathematics Classroom	9	Deleted lockable powered cabinet for storage of calculators	08/23/21
17. Concessions Building	128	Changed sink from 3-compartment to 2-compartment	10/07/21
18. Rec. Stor. & Reg. Office	90	Noted to be adjacent to Financial Secretary Office	11/02/21
19. Program of Spaces	4	Added Student Services File Room to Program of Spaces (100 SF)	11/02/21
20. Custodial Rooms	122	Shelving added for attic stock materials storage per A/E Guide	12/03/21
21. Cafeteria and Kitchen	69	Added electric water cooler with bottle filler in Dining Area	12/03/21
22. Wellness Room	106	Clarified under-counter refrigerator to be by Contractor	06/20/22
23. Modified Restroom	99	Updated grab bar length, lockset indicator, changing table type	07/25/22
24. Makerspace	78	Description expanded and list of Owner-provided equipt. added	05/01/23
25. Media Center	75	TV Studio Equipment list for Control Room added	06/02/23
26. Drama Classroom	39	Changed reference for fluorescent lights to LED lights	08/11/23
27. JROTC	68	Added illuminated "Range In Use" signs at Activity Room doors	10/27/23
28. Chemistry Classroom	23	Noted to provide cold water only at the fume hood	11/22/23
29. Teaching Wall		All references to Teaching Wall state "per detail in A/E Guide"	01/04/24
30. Makerspace	78	Teaching Wall added	01/04/24
31. Markerbds/Tackbds.		Heights of boards clarified between classroom and non-classroom.	01/04/24

TABLE OF CONTENTS

TABLE OF CONTENTS

CMS HIGH SCHOOL PROGRAM OF SPACES - 100 CLASSROOMS.....4
 CMS HIGH SCHOOL PROGRAM - ATHLETICS.....5

GENERAL CLASSROOMS

GENERAL CLASSROOMS 7
 MATHEMATICS CLASSROOM 9
 ENGLISH CLASSROOM 11
 SOCIAL STUDIES CLASSROOM 13
 FOREIGN LANGUAGE CLASSROOM 15
 RESOURCE ROOM 17

SCIENCE

GENERAL SCIENCE CLASSROOM 19
 BIOLOGY CLASSROOM 21
 CHEMISTRY CLASSROOM 23
 PHYSICS CLASSROOM..... 25

INSTRUMENTAL MUSIC

BAND / ORCHESTRA CLASSROOM..... 28

VOCAL MUSIC

CHORAL CLASSROOM 31

THEATER ARTS

AUDITORIUM 34
 THEATRE TECH CLASSROOM..... 37
 DRAMA CLASSROOM 38
 DANCE CLASSROOM 40

VISUAL ARTS

VISUAL ARTS - 2D DESIGN CLASSROOM..... 43
 VISUAL ARTS - CREATIVE CRAFTS AND DESIGN CLASSROOM 45
 MEDIA ARTS CLASSROOM..... 47
 CERAMICS CLASSROOM 49

CAREER AND TECHNICAL EDUCATION

HEALTH SCIENCE / NURSING FUNDAMENTALS 52
 MARKETING 54
 SOFTWARE DEVELOPMENT 55
 ARCHITECTURE AND ENGINEERING 56
 ADV. MANUFACTURING AND ENGINEERING..... 58
 GRAPHIC AND DIGITAL DESIGN..... 59
 ENVIRONMENTAL SUSTAINABILITY 60
 CULINARY ARTS AND HOSPITALITY 61
 COSMETOLOGY 62
 BUSINESS MANAGEMENT 63
 INTERIOR DESIGN..... 64

JROTC

JROTC 66

CAFETERIA / CHILD NUTRITION

CAFETERIA AND KITCHEN..... 69

MEDIA CENTER

MEDIA CENTER.....	73
MAKERSPACE	76

ADMINISTRATION

PRINCIPAL’S OFFICE	79
ASSISTANT PRINCIPALS’ OFFICES	80
CONFERENCE ROOM.....	81
RECEPTION / SECRETARY’S AREA.....	82
PRINCIPAL’S SECRETARY OFFICE	84
FINANCE SECRETARY’S OFFICE.....	85
PARENT CENTER.....	86
SRO OFFICE	87
HEALTH ROOM.....	88
WORKROOM	90
RECORD STORAGE AND REGISTRAR’S OFFICE.....	91
STAFF TOILETS.....	92

STUDENT SERVICES

STUDENT SERVICES	94
EXCEPTIONAL CHILDREN’S CLASSROOM.....	97
MODIFIED RESTROOM	99
SPEECH PATHOLOGIST/ITINERANT OFFICE.....	101
STUDENT STORE.....	102

STAFF SUPPORT

TEACHER WORK/BREAKROOM	104
TEACHER PLANNING ROOM.....	105
WELLNESS ROOM.....	106

PHYSICAL EDUCATION / ATHLETICS

GYMNASIUM/LOCKERS – PHYS. EDUCATION	108
TRAINING ROOM.....	111
HEALTH EDUCATION CLASSROOM.....	112
ATHLETICS	113

NATATORIUM

NATATORIUM	116
------------------	-----

HIGH SCHOOL BUILDING SUPPORT

COMMONS.....	119
PLANT OPERATIONS.....	120
TRANSPORTATION	121
CUSTODIAL ROOMS	122
GROUP RESTROOMS	123

ATHLETIC OUTBUILDINGS

FIELDHOUSE	125
TICKET BOOTH.....	127
CONCESSIONS/RESTROOMS	128
PRESSBOX.....	129

CMS HIGH SCHOOL PROGRAM 100 CLASSROOMS

11/2/2021

SPACE	QTY	CMS SF	TOTAL SF	TEACH'G SPACES
GENERAL CLASSROOMS				
GENERAL CLASSROOMS	48	750	36,000	48
RESOURCE ROOMS	3	275	825	
SUBTOTAL			36,825	48
SCIENCE				
GENERAL SCIENCE CLASSROOM	4	750	3,000	4
BIOLOGY CLASSROOM	4	1,200	4,800	4
CHEMISTRY CLASSROOM	4	1,500	6,000	4
PHYSICS CLASSROOM	4	1,200	4,800	4
PREP ROOM (BIOLOGY, CHEMISTRY & PHYSICS)	6	250	1,500	
CHEMICAL STORAGE	1	80	80	
SUBTOTAL			20,180	16
INSTRUMENTAL MUSIC				
BAND / ORCHESTRA CLASSROOM	1	2,500	2,500	1
INDIVIDUAL MODULAR PRACTICE ROOM	2	125	250	
BAND INSTRUMENT STORAGE	1	800	800	
ENSEMBLE CLASSROOM	1	750	750	1
ORCHESTRA INSTRUMENT STORAGE	1	400	400	
MUSIC OFFICE / LIBRARY	1	200	200	
INSTRUMENT REPAIR / UNIFORM STORAGE	1	225	225	
SUBTOTAL			5,125	2
VOCAL MUSIC				
CHORAL CLASSROOM	1	1,900	1,900	1
INDIVIDUAL MODULAR PRACTICE ROOM	2	125	250	
CHORAL STORAGE / ROBES, STANDING RISERS	1	400	400	
CHORAL OFFICE / LIBRARY	1	150	150	
SUBTOTAL			2,700	1
THEATRE ARTS				
AUDITORIUM (W/ 630-640 SEATS)	1	5,850	5,850	
STAGE	1	2,000	2,000	
STAGE STORAGE	1	350	350	
AUDITORIUM STORAGE	1	100	100	
SOUND / LIGHT ROOM	1	350	350	
PROP ROOM	1	450	450	
DRESSING ROOM	2	300	600	
THEATRE TECH CLASSROOM	1	1,800	1,800	1
DRAMA CLASSROOM	1	750	750	1
DANCE CLASSROOM	1	1,400	1,400	1
TOILET	2	75	150	
SUBTOTAL			13,800	3
VISUAL ARTS				
VISUAL ARTS - 2D DESIGN CLASSROOM	1	1,200	1,200	1
VISUAL ARTS - CREATIVE CRAFTS & DESIGN CLASSROOM	1	1,200	1,200	1
MEDIA ARTS CLASSROOM	1	1,200	1,200	1
CERAMICS CLASSROOM	1	1,200	1,200	1
KILN / STORAGE ROOM	1	300	300	
STORAGE	4	150	600	
SUBTOTAL			5,700	4
CAREER AND TECHNICAL EDUCATION - OLYMPIC RELIEF HIGH SCHOOL				
HEALTH SCI. / NURSING FUNDAMENTALS CLASSROOM	1	750	750	1
HEALTH SCI. / NURSING FUNDAMENTALS LAB	1	1,400	1,400	1
HEALTH SCI. / NURSING FUNDAMENTALS LAUNDRY ROOM	1	150	150	0
HEALTH SCI. / NURSING FUNDAMENTALS STORAGE	1	150	150	0
MARKETING CLASSROOM	2	850	1,700	2
MARKETING COLLABORATION ROOMS	2	150	300	0
SOFTWARE DEVELOPMENT LAB	2	1,200	2,400	2
ARCHITECTURE AND ENGINEERING LAB	1	1,200	1,200	1
ARCHITECTURE AND ENGINEERING STORAGE	1	150	150	0
ADV. MANUFACTURING & ENGINEERING LAB	2	1,200	2,400	2
ADV. MANUFACTURING & ENGINEERING STORAGE	1	150	150	0
GRAPHIC & DIGITAL DESIGN LAB	2	1,200	2,400	2
GRAPHIC & DIGITAL DESIGN STORAGE	1	150	150	0
ENVIRONMENTAL SUSTAINABILITY LAB	2	1,400	2,800	2
ENVIRONMENTAL SUSTAINABILITY STORAGE	1	150	150	0
			16,250	13
JROTC				
JROTC CLASSROOM	2	750	1,500	2
CADET WORKROOM	1	250	250	
DRESSING ROOMS (MEN'S AND WOMEN'S)	2	125	250	
ARMS ROOM	1	150	150	
SENIOR OFFICER'S OFFICE	1	150	150	
NCO INSTRUCTORS' OFFICE (FOR 2)	1	200	200	
ACTIVITY CLASSROOM / INDOOR RIFLE RANGE	1	1,500	1,500	2
STORAGE	1	500	500	
SUBTOTAL			4,500	4
CAFETERIA / CHILD NUTRITION				
DINING (3 SERVINGS, 13SF/PERSON)	1	11,000	11,000	
SERVING	1	2,000	2,000	
KITCHEN	1	2,500	2,500	
OFFICE	1	150	150	
DRY STORAGE	1	400	400	
WALK-IN COOLER	1	275	275	
WALK-IN FREEZER	1	425	425	
LAUNDRY	1	125	125	
STAFF TOILET	1	75	75	
STAFF LOCKERS	1	75	75	
SUBTOTAL			17,025	0
MEDIA CENTER				
MAIN USE ROOM	1	5,350	5,350	1
MEDIA CENTER CLASSROOM	1	750	750	1
AV PRODUCTION	1	450	450	
CONTROL ROOM	1	150	150	
EQUIPMENT STORAGE	1	150	150	
OFFICE/WORKROOM	1	250	250	
MAKERSPACE CLASSROOM	1	800	800	1
SUBTOTAL			7,900	3

SPACE	QTY	CMS SF	TOTAL SF	TEACH'G SPACES
ADMINISTRATION				
PRINCIPAL'S OFFICE	1	200	200	
PRINCIPALS CONFERENCE ROOM	1	250	250	
ASSISTANT PRINCIPAL'S OFFICE	3	150	450	
CONFERENCE ROOM - LARGE	1	400	400	
RECEPTION / SECRETARY'S AREA	1	800	800	
PRINCIPAL'S SECRETARY'S OFFICE	1	150	150	
FINANCE SECRETARY'S OFFICE	1	150	150	
PARENT CENTER	1	250	250	
SRO OFFICE	2	125	250	
VIDEO ROOM	1	125	125	
HEALTH ROOM	1	350	350	
HEALTH ROOM TOILET	1	75	75	
WORKROOM	1	400	400	
CONFERENCE ROOM - SMALL	1	200	200	
RECORD STORAGE AND REGISTRAR'S OFFICE	1	500	500	
MAIL ROOM	1	175	175	
STORAGE	1	220	220	
BOOK STORAGE	1	500	500	
OFFICE	6	125	750	
STAFF TOILET	2	75	150	
SUBTOTAL			6,345	0
STUDENT SERVICES				
COUNSELOR'S OFFICE	4	150	600	
CAREER CENTER	1	750	750	
CONFERENCE ROOM	1	250	250	
STUDENT SERVICES	1	800	800	
FILE ROOM	1	100	100	
EXCEPTIONAL CHILDREN'S CLASSROOM	2	750	1,500	2
MODIFIED RESTROOM	2	150	300	
SPEECH PATHOLOGIST / ITINERANT OFFICE	1	150	150	
IN-SCHOOL SUSPENSION	1	750	750	1
STUDENT STORE	1	125	125	
SUBTOTAL			5,325	3
STAFF SUPPORT				
TEACHER WORK / BREAKROOM	3	1,000	3,000	
TEACHER PLANNING ROOM	2	1,000	2,000	
WELLNESS ROOM	1	200	200	
ITINERANT WORKSPACE	1	500	500	
COPY / PRINT ALCOVES	4	50	200	
SUBTOTAL			5,900	0
PHYSICAL EDUCATION / ATHLETICS				
GYMNASIUM (W/ 1500 SEAT BLEACHERS)	1	13,000	13,000	
AUXILIARY GYMNASIUM	1	5,900	5,900	
STORAGE/CHAIR STORAGE	2	600	1,200	
WEIGHT ROOM	1	1,600	1,600	1
HEALTH EDUCATION CLASSROOM	2	750	1,500	2
GIRLS PE LOCKER	1	750	750	
GIRLS SHOWER / DRESSING	1	600	600	
GIRLS ATHLETIC LOCKER	1	1,050	1,050	
GIRLS PE COACH OFFICE	1	400	400	
GIRLS PE COACH LOCKER / SHOWER	1	175	175	
GIRLS ATHLETIC COACH OFFICE	1	300	300	
GIRLS ATHLETIC COACH LOCKER / SHOWER	1	175	175	
BOYS PE LOCKER	1	750	750	
BOYS SHOWER / DRESSING	1	600	600	
BOYS ATHLETIC LOCKER	1	1,050	1,050	
BOYS PE COACH OFFICE	1	400	400	
BOYS PE COACH LOCKER / SHOWER	1	175	175	
BOYS ATHLETIC COACH OFFICE	1	300	300	
BOYS ATHLETIC COACH LOCKER / SHOWER	1	175	175	
TRAINING ROOM	1	800	800	
LAUNDRY ROOM	1	250	250	
LAUNDRY STORAGE	1	150	150	
OFFICIALS CHANGING ROOM AND TOILET	1	200	200	
CONCESSIONS	1	200	200	
SUBTOTAL			31,700	3
NATATORIUM				
POOL AREA (8-LANE / 25 METER) & DECK (W/ 220 SEATS)	1	15,000	15,000	
LOCKER RM, SHOWERS & TOILETS SHARED W/ ATHLETICS			0	
OFFICE	2	150	300	
STORAGE	2	200	400	
POOL EQUIP	1	70	70	
POOL MECHANICAL	1	800	800	
SUBTOTAL			16,570	
HIGH SCHOOL BUILDING SUPPORT				
MECHANICAL			9,000	
ELECTRICAL, IDF AND MDF			1,300	
LOCKERS AND BREAKOUT AREAS			4,500	
STAFF TOILETS			1,000	
GROUP RESTROOMS			10,000	
CUSTODIAL	13	75	975	
SUBTOTAL	9%		26,775	
BUILDING SUBTOTAL			222,620	
NON ASSIGNABLE				
CIRCULATION				
WALLS				
% OF BUILDING SUBTOTAL	34%		75,691	
HIGH SCHOOL BUILDING SUBTOTAL			298,311	100
ATHLETICS OUTBUILDINGS				
FIELD HOUSE	1	3,800	3,800	
STORAGE (CONEX)			0	
TICKET BOOTH	2	200	400	
CONCESSIONS / RESTROOMS	3	1,500	4,500	
PRESSBOX WITH OBSERVATION DECK	1	450	450	
DUGOUTS	4	370	1,480	
SUBTOTAL			10,630	
PROJECT TOTAL SQUARE FOOTAGE			308,941	

CMS HIGH SCHOOL PROGRAM - ATHLETICS

10/21/2019

SPACE	QTY	CMS SF	TOTAL SF
ATHLETICS/PE FIELDS/COURTS			
PRACTICE / ACTIVITY FIELDS	1		-
COMPETITION SOFTBALL FIELD WITH BATTING CAGES	1		-
COMPETITION BASEBALL FIELD WITH BATTING CAGES	1		
COMPETITION TURF FOOTBALL FIELD	1		
COMPETITION TRACK	1		
COMPETITION TENNIS COURTS	8		
	SUBTOTAL		-

GENERAL CLASSROOMS

GENERAL CLASSROOMS

OBJECTIVES

To provide Core Curriculum Classrooms at the high school level intended to function as areas of instruction for mathematics, communication skills, foreign languages and social studies. Each space will be designed to accommodate all four disciplines to provide for the greatest amount of flexibility in scheduling and team clustering.

CAPACITY

1 teacher 29 students

ACTIVITIES

- Actively involving students individually and in groups in exploring, conjecturing, analyzing, and applying mathematics, communications skills, foreign languages and social studies in a real world context.
- Using appropriate technology for computation, exploration, and writing.
- Being a facilitator of learning.
- Assessing learning as an integral part of instruction
- Conducting independent research for projects
- Presenting individual and small group products
- Using collaborative learning structures
- Creating inter-disciplinary projects
- Conferencing in individual and small group settings
- Integrating curricula to produce uniquely different results for synthesis or evaluation by peers.
- Peer tutoring.

DESIGN CONSIDERATIONS

- General classrooms should be accessible to all students and staff for flexibility in scheduling and efficiencies of instruction time. Provide flexibility for teacher floating and use for the different General Classroom curricula.
- They should be of a size, shape and comfort level to be adaptable to general lectures, group gatherings or individual conference instruction.
- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Ceiling height should be 10' minimum.
- Each classroom should be free from auditory distraction.
- Provide acoustic panel ceiling.
- Provide visual access between the corridor and classroom with a 3" wide vision panel in the door, a side light beside the door, or a separate window at some other location along the corridor.
- Floor Finishes – Provide VCT or Rolled rubber, heat welded or VCT.
- Provide tack strips in classroom at 5'0" AFF and 3'-0" AFF (horizontally mounted) at available walls
- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.
- 1" mini-blinds for all windows, typical

Mechanical Criteria

- Classrooms should have adequate heating, ventilation, and cooling.
- Provide HVAC wall temperature sensor in each classroom.



Electrical Criteria

- Each classroom should be equipped with data, electrical, and intercom infrastructure.
- Provide six computer outlets/drops in each classroom with a quad electrical outlet adjacent to each of the computer outlets.
- Computer outlets should be located in a manner to minimize conflicts with other classroom requirements such as exiting, HVAC, equipment, etc. All outlets for computers to be on separate circuit.
- Provide cabling in ceiling for classroom camera.
- Provide cabling in ceiling for wireless access point.
- Provide duplex receptacles located around all available wall surfaces in each classroom at a maximum of 6' on center.
- Lighting – Provide switched controls to provide multiple levels of lighting from ceiling fixtures– One switch for inboard lamps at each fixture, a second switch for outboard lamps at each fixture, both located near the classroom entry door off the corridor. Provide a third switch to control the single row of light fixtures nearest the Teaching Wall. Third switch to be located near the Teaching Wall.
- Provide intercom/phone with volume control and privacy feature.
- Provide Teaching Wall per detail in A/E Guide.

Furniture, Fixtures and Equipment

MATHEMATICS CLASSROOM

OBJECTIVES

To provide a mathematics program designed to provide numerous and varied experiences with problem solving as a method of inquiry and application. Students will use problem-solving approaches to investigate and understand mathematical content in real world situations, and formulate problems from situations within and outside of mathematics. They will also develop and apply a variety of strategies to solve problems with emphasis on multi-step and non-routine problems, verify and interpret results with respect to the original problem situation, and generalize solutions and strategies to new problem situations.



CAPACITY

1 teacher 32 students

ACTIVITIES

- Actively involving students individually, and in groups, in exploring, conjecturing, analyzing, and applying skills in communications, literary, and real-work contexts.
- Using appropriate technology for communication, performance, and production.
- Integrating curricula to produce uniquely different results for synthesis or evaluation by peers.
- Participating in simulation for critical thinking strategies and problem-solving activities.
- Assessing learning as an integral part of instruction.

DESIGN CONSIDERATIONS

- There should be areas for whole group instruction/discussion, individual/small group instruction.
- Math Classrooms should be located in clusters to allow for integration of disciplines.
- Math classrooms should be clustered with a lecture hall and subject teacher planning area.
- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Ceiling height should be 10' minimum.
- Each classroom should be free from auditory distraction.
- Provide acoustic panel ceiling.
- Provide visual access between the corridor and classroom with a 3" wide vision panel in the door, a side light beside the door, or a separate window at some other location along the corridor.
- Floor Finishes – Provide VCT or Rolled rubber, heat welded or VCT.
- Provide tack strips in classroom at 5'0" AFF and 3'-0" AFF (horizontally mounted) at available walls
- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide additional markerboards on available walls.
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.
- 1" mini-blinds for all windows, typical

Mechanical Criteria

- Classrooms should have adequate heating, ventilation, and cooling.
- Provide HVAC wall temperature sensor in each classroom.

Electrical Criteria

- Each classroom should be equipped with data, electrical, and intercom infrastructure.
- Provide six computer outlets/drops in each classroom with a quad electrical outlet adjacent to each of the computer outlets.
- Computer outlets should be located in a manner to minimize conflicts with other classroom requirements such as exiting, HVAC, equipment, etc. All outlets for computers to be on separate circuit.
- Provide cabling in ceiling for classroom camera.
- Provide cabling in ceiling for wireless access point.
- Provide duplex receptacles located around all available wall surfaces in each classroom at a maximum of 6' on center.
- Lighting – Provide switched controls to provide multiple levels of lighting from ceiling fixtures– One switch for inboard lamps at each fixture, a second switch for outboard lamps at each fixture, both located near the classroom entry door off the corridor. Provide a third switch to control the single row of light fixtures nearest the Teaching Wall. Third switch to be located near the Teaching Wall.
- Provide intercom/phone with volume control and privacy feature.
- Provide Teaching Wall per detail in A/E Guide.

Furniture, Fixtures and Equipment

- Provide flexible student desks with separate chairs that can be combined for group work.
- Provide table for printer.

ENGLISH CLASSROOM

OBJECTIVES

To provide a communications program designed to create independent readers and communicators who have thinking, problem-solving, and decision-making strategies that enable them to live successfully and appreciate life. The communications program is also designed to develop teamwork.

Additional objectives are the following:

- To speak and listen effectively.
- To comprehend the written word on several levels.
- To use “writing to learn” strategies.
- To use standard forms of English effectively.
- To view with discrimination and critical insight.
- To construct meaning from abstractions.
- To discern relevance in reading and writing.
- To read a variety of types of literature with understanding.
- To respond personally and confidently in many ways to literature.
- To write in a variety of forms for a variety of purposes and audiences.



CAPACITY

1 teacher 32 students

ACTIVITIES

- Actively involving students individually, and in groups, in exploring, conjecturing, analyzing, and applying skills in communications, literary, and real-work contexts.
- Using appropriate technology for communication, performance, and production.
- Integrating curricula to produce uniquely different results for synthesis or evaluation by peers.
- Participating in simulation for critical thinking strategies and problem-solving activities.
- Assessing learning as an integral part of instruction.

DESIGN CONSIDERATIONS

- There should be areas for whole group instruction/discussion, individual/small group instruction, and performance areas for dramatic/visual aspect of communications.
- Students should have access to integrated computer system in the classroom.
- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Ceiling height should be 10' minimum.
- Each classroom should be free from auditory distraction.
- Provide acoustic panel ceiling.
- Provide visual access between the corridor and classroom with a 3" wide vision panel in the door, a side light beside the door, or a separate window at some other location along the corridor.
- Floor Finishes – Provide VCT or Rolled rubber, heat welded or VCT.
- Provide tack strips in classroom at 5'0" AFF and 3'-0" AFF (horizontally mounted) at available walls
- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.

- 1” mini-blinds for all windows, typical

Mechanical Criteria

- Classrooms should have adequate heating, ventilation, and cooling.
- Provide HVAC wall temperature sensor in each classroom.

Electrical Criteria

- Each classroom should be equipped with data, electrical, and intercom infrastructure.
- Provide six computer outlets/drops in each classroom with a quad electrical outlet adjacent to each of the computer outlets.
- Computer outlets should be located in a manner to minimize conflicts with other classroom requirements such as exiting, HVAC, equipment, etc. All outlets for computers to be on separate circuit.
- Provide cabling in ceiling for classroom camera.
- Provide cabling in ceiling for wireless access point.
- Provide duplex receptacles located around all available wall surfaces in each classroom at a maximum of 6' on center.
- Lighting – Provide switched controls to provide multiple levels of lighting from ceiling fixtures– One switch for inboard lamps at each fixture, a second switch for outboard lamps at each fixture, both located near the classroom entry door off the corridor. Provide a third switch to control the single row of light fixtures nearest the Teaching Wall. Third switch to be located near the Teaching Wall.
- Provide intercom/phone with volume control and privacy feature.
- Provide Teaching Wall per detail in A/E Guide.

Furniture, Fixtures and Equipment

SOCIAL STUDIES CLASSROOM

OBJECTIVES

To provide a secondary social studies program of three and one-half required units of study that contain the disciplines of government, economics, and history. In addition, a selection of electives is offered that expands the basic curriculum to include geography, sociology and psychology as well as other courses specializing in various issues throughout history. The usual sequence of required courses is: 9th grade Economic, Legal, and Political Systems; 10th grade World History; 11th grade U.S. History; and 12th grade Applied Economics.



The objectives for social studies courses are contained in the North Carolina Standard Course of Study with seven strands indicating that upon completion of the courses CMS students will be able to:

- Gather, interpret, and use information from a variety of sources to problem solve. Students will be proficient in the use of print information, media, technology, maps, and globes.
- Participate in a democratic society. Students will practice the skills of citizenship and understand the citizen's role in affecting change
- Understand and compare the basic governmental principles at different times in history and in various countries.
- Define geographic terms and interpret the five themes of geography.
- Understand how society now and in the past have used resources to meet the needs of its people.
- View current issues and those in history from a global perspective.
- Identify and appreciate the cultural diversity that exists in society.

CAPACITY

1 teacher 32 students

ACTIVITIES:

- Actively involving students individually, or in groups, in exploring, conjecturing, analyzing, and applying skills in communications, literary, and real-work contexts is essential.
- Using appropriate technology for communication, performance, and production.
- Integrating curricula to produce uniquely different results for synthesis or evaluation by peers.
- Participating in simulations for critical thinking strategies and problem-solving activities.
- Assessing learning as an integral part of instruction.

DESIGN CONSIDERATIONS

- There should be areas for whole group instruction/discussion, individual/small group instruction, performance areas for dramatic/visual aspect of communications, debates, panel discussions and role play.
- Students should have access to the media center and computer labs within the classroom for research and word processing and internet.
- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Ceiling height should be 10' minimum.
- Each classroom should be free from auditory distraction.
- Provide acoustic panel ceiling.
- Provide visual access between the corridor and classroom with a 3" wide vision panel in the door, a side light beside the door, or a separate window at some other location along the corridor.

- Floor Finishes – Provide VCT or Rolled rubber, heat welded or VCT.
- Provide tack strips in classroom at 5'0" AFF and 3'-0" AFF (horizontally mounted) at available walls
- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.
- 1" mini-blinds for all windows, typical

Mechanical Criteria

- Classrooms should have adequate heating, ventilation, and cooling.
- Provide HVAC wall temperature sensor in each classroom.

Electrical Criteria

- Each classroom should be equipped with data, electrical, and intercom infrastructure.
- Provide six computer outlets/drops in each classroom with quad electrical outlet adjacent to each of the computer outlets.
- Computer outlets should be located in a manner to minimize conflicts with other classroom requirements such as exiting, HVAC, equipment, etc. All outlets for computers to be on separate circuit.
- Provide cabling in ceiling for classroom camera.
- Provide cabling in ceiling for wireless access point.
- Provide duplex receptacles located around all available wall surfaces in each classroom at a maximum of 6' on center.
- Lighting – Provide switched controls to provide multiple levels of lighting from ceiling fixtures– One switch for inboard lamps at each fixture, a second switch for outboard lamps at each fixture, both located near the classroom entry door off the corridor. Provide a third switch to control the single row of light fixtures nearest the Teaching Wall. Third switch to be located near the Teaching Wall.
- Provide intercom/phone with volume control and privacy feature.
- Provide Teaching Wall per detail in A/E Guide.

Furniture, Fixtures and Equipment

FOREIGN LANGUAGE CLASSROOM

OBJECTIVES

Today's global interdependence demands that people be fully proficient in a foreign language in order to participate and compete in commerce, international relations, law, science and the arts. Therefore, foreign language study plays a key role in international education and in preparing students for effective participation in a global age. The ability to communicate in another language allows us to access new people and ideas and is central to the understanding of another culture. Also, it enhances comprehension of one's native tongue.



The CMS foreign language program emphasizes the ability to communicate in the foreign language, not just to learn about the language. The goals of the high school foreign language are for students (1) to develop the basic skills of understanding, listening, speaking, reading and writing and apply basic grammatical principles; and (2) to demonstrate a knowledge of the people of the target language and the use of language and behavior appropriate to real-life situations of language and behavior appropriate to real-life situations in the target culture.

The high school foreign language program is either a continuation of the middle school program or the beginning of another language. In order to develop proficiency in all skill areas, students should study one language over a long sequence of time.

CAPACITY

1 teacher 32 students

ACTIVITIES

- Whole class instruction.
- Individual and/or small group activities/projects at seats and/or floor.
- Students performing skits and dialogues.
- Viewing of cultural videos.
- Students producing videos.
- Games.
- Folk dances.
- Cooking and eating.
- Listening to and responding to cassette tapes.
- Computer instruction and student independent research.
- Art activities.
- Written activities.
- Reading of cultural and non-cultural materials in the target language.

DESIGN CONSIDERATIONS

- The second language program integrates social studies through the study of the target countries' geography, historical figures and culture; math through computations and word problems; health/science through the study of the environment and diet; visual/performing arts and dance through the study of the target countries' music, art and dance; and, physical education through the study of the target countries' games and sports.
- Foreign language classrooms should be clustered with a work area/office area for teachers (storage, materials, etc.).
- Foreign language classrooms should have access to a cooking area.
- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Ceiling height should be 10' minimum.
- Each classroom should be free from auditory distraction.
- Provide acoustic panel ceiling.
- Provide visual access between the corridor and classroom with a 3" wide vision panel in the door, a side light beside the door, or a separate window at some other location along the corridor.
- Floor Finishes – Provide VCT or Rolled rubber, heat welded or VCT.
- Provide tack strips in classroom at 5'0" AFF and 3'-0" AFF (horizontally mounted) at available walls
- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.
- 1" mini-blinds for all windows, typical

Mechanical Criteria

- Classrooms should have adequate heating, ventilation, and cooling.
- Provide HVAC wall temperature sensor in each classroom.

Electrical Criteria

- Each classroom should be equipped with data, electrical, and intercom infrastructure.
- Provide six computer outlets/drops in each classroom with a quad electrical outlet adjacent to each of the computer outlets.
- Computer outlets should be located in a manner to minimize conflicts with other classroom requirements such as exiting, HVAC, equipment, etc. All outlets for computers to be on separate circuit.
- Provide cabling in ceiling for classroom camera.
- Provide cabling in ceiling for wireless access point.
- Provide duplex receptacles located around all available wall surfaces in each classroom at a maximum of 6' on center.
- Lighting – Provide switched controls to provide multiple levels of lighting from ceiling fixtures– One switch for inboard lamps at each fixture, a second switch for outboard lamps at each fixture, both located near the classroom entry door off the corridor. Provide a third switch to control the single row of light fixtures nearest the Teaching Wall. Third switch to be located near the Teaching Wall.
- Provide intercom/phone with volume control and privacy feature.
- Provide Teaching Wall per detail in A/E Guide.

Furniture, Fixtures and Equipment

RESOURCE ROOM

OBJECTIVES

To provide an additional space for any activity that is conducted with less than a full classroom of students.

CAPACITY

1 teacher

DESIGN CONSIDERATIONS

- Resource rooms should be integrated with grade level classroom areas.
- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Floor: Provide VCT or rolled rubber with heat welded seams
- Ceiling height should be 9' minimum
- Ceiling: Provide acoustical tile
- Windows: Provide sill height 24"-26" AFF with 1" mini-blinds typical
- Doors: Interior doors to corridors are to include a 3" wide vision panel.
- Walls: Provide painted gypsum wallboard, pre-cast concrete or CMU
- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide
- Provide built-in base cabinets with plastic laminated countertop and stainless steel sink
- Provide wall cabinets with adjustable shelving
- Towel dispenser and liquid soap dispenser to be installed on wall above base cabinet near sink
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.

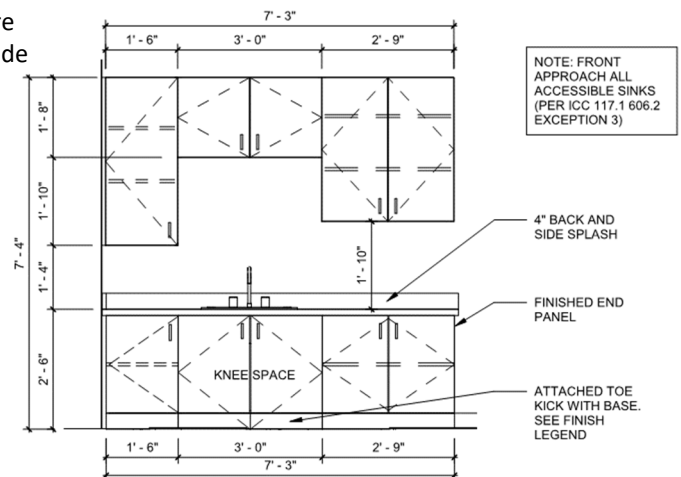
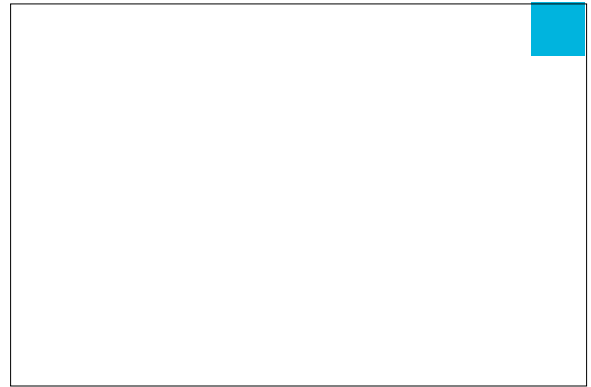
Mechanical Criteria

- Provide 24" deep base cabinets with countertop and stainless steel sink in classroom w/hot (tempered) and cold water
- Provide CO monitor in each classroom
- Provide HVAC wall temperature sensor in each classroom

Electrical Criteria

- Provide Teaching Wall per detail in A/E Guide.
- Provide duplex outlets with covers every 6' on center
- Provide intercom/phone with volume control and privacy feature
- Provide computer network drops and power outlets per A/E Guide
- Provide all outlets for computers on separate circuit

Furniture, Fixtures and Equipment



CASEWORK - RESOURCE

$1/4" = 1'-0"$

SCIENCE

GENERAL SCIENCE CLASSROOM **(PHYS.SCIENCE, EARTH SCIENCE, SCIENCE ELECTIVES)**

OBJECTIVES

To provide a Science Curriculum for Charlotte-Mecklenburg Schools based upon the philosophy that science is both process and product. This process results in product knowledge and its application in daily life. The way knowledge is obtained, presented and applied is as crucial as the knowledge itself. The curriculum is founded on four major goal statements: the nature of science; process skills; manipulative skills, attitudes and application; and science concepts.



In order to produce a more scientifically literate member of society, student experiences must encompass the following objectives:

- Students develop a broad awareness of the nature of science by examining scientific concepts and practicing scientific methods.
- Students acquire process skills through scientific inquiry and by being involved in experiential learning activities.
- Students experience and learn manipulative skills of increasing complexity, accuracy and precision by manipulating various types of equipment, substances and data processing techniques.
- Students demonstrate the ability to apply science in making decisions that affect the individual, society, and the environment.

CAPACITY

1 teacher 32 students

ACTIVITIES

- Allow students to engage in inquiry and experiential-based activities using real-world scientific tools.
- Involve the manipulation of science equipment (e.g., microscopes, small digital balances, CO₂, PH etc. sensors, probe-ware).
- Show a relevance and application to everyday life.
- Involve integration of science, society and technology.
- Enhance the student's ability in communication skills.
- Foster higher order and critical thinking skills.
- Incorporate a variety of instructional strategies (e.g., cooperative groups, whole class, lecture/discussion, mini-lectures/presentations, independent study).
- Address student learning styles (e.g., auditory, visual, kinesthetic).
- Allow the teacher to become a "facilitator of learning".
- Promote science literacy through the use of various types of scientific texts, such as graphs, charts, GUI interfaces, models, etc.

DESIGN CONSIDERATIONS

- Where possible, instruction should be integrated with other subject areas (e.g., use of themes that transcend disciplines) emphasizing literacy connections.
- Science labs should be clustered with a teacher planning area.
- Classrooms should be designed to foster a multi-tasking environment (hands-on, video, multi-media, computer, and research areas).
- Classrooms must comply with federal and state safety regulations (e.g., goggles, safety equipment, eyewash, shower, fire blanket, fire extinguisher (NFPA Hazard Symbols)).
- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide vinyl tile floors – covered with non-skid wax or non-skid pads at each water-bearing work station.
- Classroom:
 - Provide cabinet storage for sensors and probeware, with power within cabinet for charging. (Quantity and types of equipment to be provided by CMS).
 - Provide one teacher demonstration desk, offset from Teaching Wall; 8'x30"x34" with acid/alkali resistant top, one upright rod assembly with two support rods and two sockets flush with table top.
 - Provide perimeter flexible (mobile) base cabinets (see Diversified Woodcraft/Fisher), with one larger permanent sink (to be reviewed with DPI), and electricity.
 - Owner to provide teacher's desk at Teaching Wall. Provide telcom outlet, quad outlet and blank outlet at wall adjacent to teacher's desk for teacher's computer.
 - Provide two 36"x84" high storage cabinets. (Look into mobile cabinets)
 - Provide classroom designed for accessibility.
 - Provide wall-mounted storage cabinets on back wall above permanent sink.
 - Provide locks on all cabinets.
 - Provide safety goggle cabinet.
 - Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide. Offset teaching station from Teaching Wall.
 - Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.
 - 1" mini-blinds for all windows, typical

Mechanical Criteria

- Provide central cut-off valve per room for water.

Electrical Criteria

- Provide fifteen data connections each grouped with a quadruplex outlet.
- Provide cabling in ceiling for classroom camera.
- Provide cabling in ceiling for wireless access point.
- Provide electrical outlets elsewhere at 6' on center (GFI at all wet areas).
- Provide television connection.
- Provide intercom/phone with volume control and privacy feature.
- Provide Teaching Wall per detail in A/E Guide.

Furniture, Fixtures and Equipment

BIOLOGY CLASSROOM

OBJECTIVES

To provide a Science Curriculum for Charlotte-Mecklenburg Schools based upon the philosophy that science is both process and product. This process results in product knowledge and its application in daily life. The way knowledge is obtained, presented and applied is as crucial as the knowledge itself. The curriculum is founded on four major goal statements: the nature of science; process skills; manipulative skills, attitudes and application; and science concepts.



In order to produce a more scientifically literate member of society, student experiences must encompass the following objectives:

- Students develop a broad awareness of the nature of science by examining scientific concepts and practicing scientific methods.
- Students acquire process skills through scientific inquiry and by being involved in experiential learning activities.
- Students experience and learn manipulative skills of increasing complexity, accuracy and precision by manipulating various types of equipment, substances and data processing techniques.
- Students demonstrate the ability to apply science in making decisions that affect the individual, society, and the environment.

CAPACITY

1 teacher 32 students

ACTIVITIES

- Allow students to engage in inquiry and experiential-based activities using real-world scientific tools.
- Involve the manipulation of science equipment (e.g., microscopes, small digital balances, CO₂, PH etc. sensors, probe-ware).
- Show a relevance and application to everyday life.
- Involve integration of science, society and technology.
- Enhance the student's ability in communication skills.
- Foster higher order and critical thinking skills.
- Incorporate a variety of instructional strategies (e.g., cooperative groups, whole class, lecture/discussion, mini-lectures/presentations, independent study).
- Address student learning styles (e.g., auditory, visual, kinesthetic).
- Allow the teacher to become a "facilitator of learning".
- Promote science literacy through the use of various types of scientific texts, such as graphs, charts, GUI interfaces, models, etc.

DESIGN CONSIDERATIONS

- Where possible, instruction should be integrated with other subject areas (e.g., use of themes that transcend disciplines) emphasizing literacy connections.
- Science labs should be clustered with a teacher planning area.
- Classrooms should be designed to foster a multi-tasking environment (hands-on, video, multi-media, computer, and research areas).
- Classrooms must comply with federal and state safety regulations (e.g., goggles, safety equipment, eyewash, shower, fire blanket, fire extinguisher (NFPA Hazard Symbols)).
- Science chemical storage rooms should be provided with proper ventilation that meets federal and state requirements (NFPA Hazard Symbols).
- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide vinyl tile floor – covered with non-skid wax or non-skid pads at water bearing work stations.
- Lab Area:
 - Provide one teacher demonstration desk, offset from Teaching Wall; 8'x30"x34" with acid/alkali resistant top, electricity, one upright rod assembly with two support rods and two sockets flush with table top.
 - Provide eight perimeter student lab stations with electricity (each station with sinks with covers; hot/cold water, with one of the sinks being larger). Counter with chemical resistant top, sink and drain.
 - Provide lab counters along the wall connecting the student islands.
 - Owner to provide teacher's desk at Teaching Wall. Provide telcom outlet, quad outlet and blank outlet at wall adjacent to teacher's desk for teacher's computer.
 - Provide a fume hood in 1 of the 4 programmed biology classrooms; a "double sided" fume hood that is shared between the prep room and biology classroom can be used, but is not required.
 - Provide two 36"x84" high storage cabinets.
 - Provide wall-mounted storage cabinets above lab counters.
 - Provide one lab station designed for wheelchair access.
 - Provide locks on all cabinets.
 - Provide space on counters for grow lights or larger biology-related equipment/projects (such as incubator) by not having wall cabinets above.
 - Provide area and locked cabinet to charge calculators, 3 sets of 10 charging, typical.
 - Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide. Offset teaching station from Teaching Wall.
 - Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.
 - 1" mini-blinds for all windows, typical
- Prep Room:
 - Comply with DPI and NFPA.
 - Provide NFPA hazard symbols on door.
 - Provide 15" deep shelving along one wall in storage room.
 - Provide teacher prep counter with acid/alkali resistant top, 1 large sink (cookie sheet size) equipped with water (hot/cold); and electricity.
 - Provide wall-mounted storage cabinets above prep counter.
 - Provide wall-mounted fire extinguishers.
 - Provide one dishwasher, one icemaker and one refrigerator amongst all higher level Science Rooms.
 - Provide storage area within Prep Room separated by a door, with smaller corrosion, acid and flammable resistant cabinets that can sit on a counter. Only need one storage area to serve all four Biology classrooms. (Provide larger corrosion, acid and flammable resistant cabinets in large Chem Stor Room)

Mechanical Criteria

Electrical Criteria

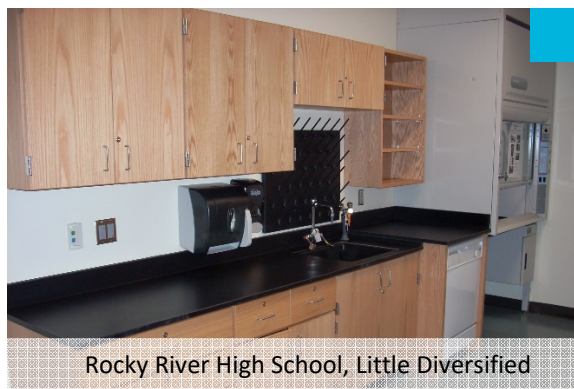
- Provide fifteen data connections each grouped with a quad outlet and wireless access point.
- Provide cabling in ceiling for classroom camera.
- Provide cabling in ceiling for wireless access point.
- Provide electrical outlets elsewhere at 6' on center.
- Provide data outlet in prep area.
- Provide television connection.
- Provide intercom/phone with volume control and privacy feature.
- Provide Teaching Wall per detail in A/E Guide.

Furniture, Fixtures and Equipment

CHEMISTRY CLASSROOM

OBJECTIVES

To provide a Science Curriculum for Charlotte-Mecklenburg Schools based upon the philosophy that science is both process and product. This process results in product knowledge and its application in daily life. The way knowledge is obtained, presented and applied is as crucial as the knowledge itself. The curriculum is founded on four major goal statements: the nature of science; process skills; manipulative skills, attitudes and application; and science concepts.



In order to produce a more scientifically literate member of society, student experiences must encompass the following objectives:

- Students develop a broad awareness of the nature of science by examining scientific concepts and practicing scientific methods.
- Students acquire process skills through scientific inquiry and by being involved in experiential learning activities.
- Students experience and learn manipulative skills of increasing complexity, accuracy and precision by manipulating various types of equipment, substances and data processing techniques.
- Students demonstrate the ability to apply science in making decisions that affect the individual, society, and the environment.

CAPACITY

1 teacher 32 students

ACTIVITIES

- Allow students to engage in inquiry and experiential-based activities using real-world scientific tools.
- Involve the manipulation of science equipment (e.g., microscopes, small digital balances, CO₂, PH etc. sensors, probe-ware).
- Show a relevance and application to everyday life.
- Involve integration of science, society and technology.
- Enhance the student's ability in communication skills.
- Foster higher order and critical thinking skills.
- Incorporate a variety of instructional strategies (e.g., cooperative groups, whole class, lecture/discussion, mini-lectures/presentations, independent study).
- Address student learning styles (e.g., auditory, visual, kinesthetic).
- Allow the teacher to become a "facilitator of learning".
- Promote science literacy through the use of various types of scientific texts, such as graphs, charts, GUI interfaces, models, etc.

DESIGN CONSIDERATIONS

- Where possible, instruction should be integrated with other subject areas (e.g., use of themes that transcend disciplines) emphasizing literacy connections.
- Science rooms should be clustered with a teacher planning area.
- Classrooms should be designed to foster a multi-tasking environment (hands-on, video, multi-media, computer, and research areas).
- Classrooms must comply with federal and state safety regulations (e.g., goggles, safety equipment, eyewash, shower, fire blanket, fire extinguisher (NFPA Hazard Symbols)).
- Chemical storage rooms should be provided with proper ventilation that meets federal and state requirements (NFPA Hazard Symbols).
- Science chemical storage rooms should be provided with wall-mounted fire extinguisher.
- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- All science labs should have windows whenever it is feasible.
- Provide vinyl tile floors with drainage – covered with non-skid wax or non-skid pads at water bearing work stations.
- Lab Area:
 - Provide one teacher demonstration desk, offset from Teaching Wall; 8'x30"x36" with acid/alkali resistant top equipped with water (hot/cold), electricity and gas, one upright rod assembly with two support rods and two sockets flush with table top. Eyewash attached.
 - Gas service is to be provided to only 1 or 2 teacher demonstration tables and adjoining prep room of the 4 chemistry classrooms required of the program, to meet the requirements of the Baccalaureate Chemistry curriculum.
 - Provide student lab benches with water (hot/cold), electricity and connections. Counter with chemical resistant top, sink and drain; hot/cold water.
 - Provide lab counters along the wall connecting student islands.
 - Owner to provide teacher's desk at Teaching Wall. Provide telcom outlet, quad outlet and blank outlet at wall adjacent to teacher's desk for teacher's computer.
 - Provide moveable fume hood with connectors on two opposing walls. Provide cold water only at fume hood.
 - Provide two 36"x84" high storage cabinets.
 - Provide one lab station should be designed for wheelchair access.
 - Provide wall-mounted storage cabinets above lab counters (glass doors for display).
 - Provide locks on all cabinets.
 - Provide one 4'x8' tackboard. Top of board to be 6'-8" AFF.
 - Provide one 4'x16' markerboard. Top of board to be 6'-8" AFF.
 - Provide safety shower.
 - Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide. Offset teaching station from Teaching Wall.
 - Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.
 - 1" mini-blinds for all windows, typical
- Prep/Storage Area:
 - Provide 15" deep shelving along one wall in storage room.
 - Provide numerous electrical outlets.
 - Provide teacher prep counter with acid/alkali resistant top/2 sinks equipped with water (hot/cold); gas and electricity.
 - Gas service is to be provided to only 1 adjoining prep room of the 4 chemistry classrooms required.
 - Provide five 36"x84" high cabinets for glassware storage.
 - Provide wall-mounted storage cabinets above prep counter.
 - Provide one shared spark-free refrigerator.
 - Provide one shared ice maker.
 - Provide small countertop corrosion/acid/flammable storage cabinets

Mechanical Criteria

- Gas installations must include a "master cut-off" in each lab.
- Provide ventilation in chemical storage room that meets OSHA regulations.

Electrical Criteria

- Provide fifteen data connections each grouped with a quadruplex outlet.
- Provide cabling in ceiling for classroom camera.
- Provide cabling in ceiling for wireless access point.
- Provide electrical outlets elsewhere at 6' on center.
- Provide data outlet in prep area.
- Provide television connection.
- Provide intercom/phone with volume control and privacy feature.
- Provide Teaching Wall per detail in A/E Guide.

PHYSICS CLASSROOM

OBJECTIVES

To provide a Science Curriculum for Charlotte-Mecklenburg Schools based upon the philosophy that science is both process and product. This process results in product knowledge and its application in daily life. The way knowledge is obtained, presented and applied is as crucial as the knowledge itself. The curriculum is founded on four major goal statements: the nature of science; process skills; manipulative skills, attitudes and application; and science concepts.



In order to produce a more scientifically literate member of society, student experiences must encompass the following objectives:

- Students develop a broad awareness of the nature of science by examining scientific concepts and practicing scientific methods.
- Students acquire process skills through scientific inquiry and by being involved in experiential learning activities.
- Students experience and learn manipulative skills of increasing complexity, accuracy and precision by manipulating various types of equipment, substances and data processing techniques.
- Students demonstrate the ability to apply science in making decisions that affect the individual, society, and the environment.

CAPACITY

1 teacher 32 students

ACTIVITIES

- Allow students to engage in inquiry and experiential-based activities using real-world scientific tools.
- Involve the manipulation of science equipment (e.g., microscopes, small digital balances, CO₂, PH etc. sensors, probe-ware).
- Show a relevance and application to everyday life.
- Involve integration of science, society and technology.
- Enhance the student's ability in communication skills.
- Foster higher order and critical thinking skills.
- Incorporate a variety of instructional strategies (e.g., cooperative groups, whole class, lecture/discussion, mini-lectures/presentations, independent study).
- Address student learning styles (e.g., auditory, visual, kinesthetic).
- Allow the teacher to become a "facilitator of learning".
- Promote science literacy through the use of various types of scientific texts, such as graphs, charts, GUI interfaces, models, etc.

DESIGN CONSIDERATIONS

- Where possible, instruction should be integrated with other subject areas (e.g., use of themes that transcend disciplines) emphasizing literacy connections.
- Science labs should be clustered with a teacher planning area.
- Classrooms should be designed to foster a multi-tasking environment (hands-on, video, multi-media, computer, and research areas).
- Classrooms must comply with federal and state safety regulations (e.g., goggles, safety equipment, eyewash, shower, fire blanket, fire extinguisher (NFPA Hazard Symbols)).
- Chemical storage rooms should be provided with proper ventilation that meets federal and state requirements (NFPA Hazard Symbols).
- Science chemical storage rooms should be provided (with proper ventilation that meets federal and state requirements) wall-mounted fire extinguisher.

- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- All science labs should have windows whenever it is feasible.
- Provide vinyl tile floors – covered with non-skid wax or non-skid pads at each water-bearing station.
- Lab Area:
 - Provide one teacher demonstration desk, offset from Teaching Wall; 8'x30"x36" with acid/alkali resistant top, electricity, one upright rod assembly with two support rods and two sockets flush with table top. Eyewash attached.
 - Provide six perimeter student lab islands with one larger permanent sink, electricity and connections, one upright rod assembly with two support rods and two sockets flush with table top. Eyewash attached.
 - Provide lab counters along the wall connecting lab islands.
 - Owner to provide teacher's desk at Teaching Wall. Provide telcom outlet, quad outlet and blank outlet at wall adjacent to teacher's desk for teacher's computer.
 - Provide two 36"x84" high storage cabinets.
 - Provide wall-mounted storage cabinets above lab counters (glass doors for display).
 - Provide locks on all cabinets.
 - Provide one lab station should be designed for wheelchair access
 - Provide one 4'x8' tackboard. Top of board to be 6'-8" AFF.
 - Provide one 4'x16' markerboard. Top of board to be 6'-8" AFF.
 - Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide. Offset teaching station from Teaching Wall.
 - Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.
 - 1" mini-blinds for all windows, typical
- Prep/Storage Area
 - Provide 15" deep shelving along one wall in storage room.
 - Provide teacher prep counter with acid/alkali resistant top/2 sinks equipped with water (hot/cold); and electricity.
 - Provide wall-mounted storage cabinets above prep counter.

Mechanical Criteria

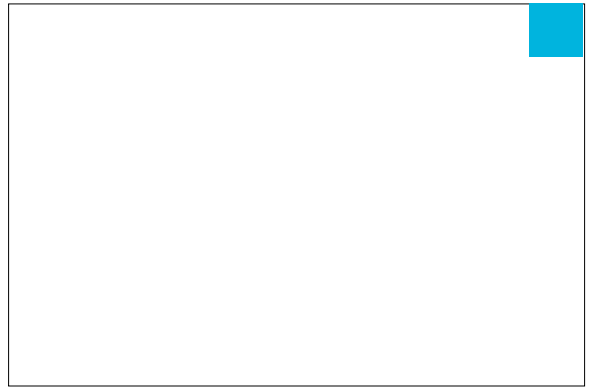
Electrical Criteria

- Provide fifteen data connections each grouped with a quad outlet.
- Provide cabling in ceiling for classroom camera.
- Provide cabling in ceiling for wireless access point.
- Provide electrical outlets elsewhere at 6' on center.
- Provide data outlet in prep area.
- Provide television connection.
- Provide intercom/phone with volume control and privacy feature.
- Provide Teaching Wall per detail in A/E Guide.

Furniture, Fixtures and Equipment

INSTRUMENTAL MUSIC

BAND / ORCHESTRA CLASSROOM



OBJECTIVES

Curriculum objectives for the high school music program are those found in the North Carolina Standard Course of Study, which is aligned with the National Standards for Arts Education. These objectives include aspects of creating, listening to, performing, and analyzing music, in addition to focusing on specific subject matter.

CAPACITY

2 teachers 60-75 students

ACTIVITIES

The primary activity in high school instrumental music classes is the study of performance techniques and music literature through large group instruction. Small ensemble and individual or small group instruction are frequent parts of the instructional plan. Opportunities are provided for independent learning and the development of basic music knowledge and skills related to the literature studied. Music theory includes ear training, composition, and analysis. Classes are supported by keyboards, computers and recording and playback equipment.

DESIGN CONSIDERATIONS

- The high school music program works jointly with the areas of dance and drama as well as teachers in the core curriculum to support the educational goals of the school. Easy access to the stage as well as to other performing arts classes is important.
- The location of the music rooms should consider the sound requirement of the instructional program in music.
- All music rooms and stages must be wheelchair accessible.
- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide 2,500 sq. ft. for 60-75 students.
- Provide ceiling height 18'-22' in music room (10' in other non-rehearsal spaces).
- Cubic volume of the rehearsal room and shape of its walls have a profound effect on the quality of the acoustics. Cubic volume is reduced by every piece of furniture that is placed within the room.
- Provide 550-700 cu. Ft. per student.
- Provide acoustical treatment of the space using absorptive materials, non-parallel walls.
- Parallel walls are okay as long as the room is rectangle and a 3:2 ratio exists.
- Rooms must have a mixture of absorption and diffusion to create the acoustics necessary for critical listening.
- Use 3" thick absorber panels.
- Optimal reverberation of an instrumental classroom is between .8-1 seconds.
- Enlist the services of a reputable acoustic company to provide an acoustic analysis and panel layout recommendation of the space. Also, one that will guarantee the Acoustic Analysis after installation. (Wenger provides this service for free.)
- In-lay acoustical ceiling should be specified with .95 NRC rated ceiling tile, rather than standard gypsum board.
- An accessible water fountain should be provided within the room.
- Double doors in the music room with removable center post should be provided at entrances. Doors shall have acoustic seals.
- Provide wide hallways and doorways leading to the auditorium to enable moving large music equipment and a grand piano from the choral rehearsal room into the space.
- No risers should be provided.

- Direct access to outside should be provided, must be wheelchair accessible. Accessibility must be provided to practice field.
- Music area should be able to be entered and sealed off from the remainder of the building on nights and weekends.
- Scullery sink and counter should be provided within the instrument repair room. An oversized sink allows for cleaning larger brass instruments.
- Music lab, practice rooms, and ensemble rooms should be designed to be shared by instrumental and choral music; must be wheelchair accessible.
- Use pre-manufactured modular practice rooms to reduce cost and properly construct a sound isolated space with an NIC Rating of 63 or higher room to room.
- Carpet absorbs high frequency sounds and is not recommended in instrumental music spaces. Carpet should also be avoided because of exposure to moisture from spit valves.
- Provide four 36"x12"x54" shelving units (2 lockable) in music room to accommodate textbooks, resource books, recordings, compact discs support materials.
- Provide locks on all cabinets.
- Provide one 4'x12' markerboard located behind the podium. Top of board to be 6'-8" AFF.
- Provide one 4'x12' tackboard. Top of board to be 6'-8" AFF.
- Provide (6) standard 4-drawer legal size file cabinets for band/orchestra music storage (in file folders), (3) cabinets for Band and (3) cabinets for Orchestra.
- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.
- 1" mini-blinds for all windows, typical

Storage Criteria

- Instrument storage can be located in a room outside the rehearsal room if adequate circulation in and out of room is provided so as not to delay students at beginning of class. Otherwise instrument storage should be along a wall of the rehearsal room. Owner to provide current "Performing Arts Equipment List" for use in planning for storage needs of loose music equipment and instruments.
- Cabinets should be durable and use lockable grilles to secure instruments if not located in separate lockable storage room. No grilles needed if located in storage room.
- Use Wenger Ultrastor cabinets/lockers as a basis of design for their security, durability and heavy duty hardware.
- Require through-bolt construction, powder coated metal fasteners and locks, and polyethylene shelving for a variety of instruments.
- Secure, ventilated, mobile hanging storage systems should be provided to protect band uniforms and garments and prevent mildew, McCormick Hat and Uniform Caddy #8110050 or approved equal. Can be included as part of the Instrument Repair Storage square footage.
- Legal size file cabinets are acceptable for paper music storage. Provide 6 file cabinets total, 3 for band music, 3 for orchestra.

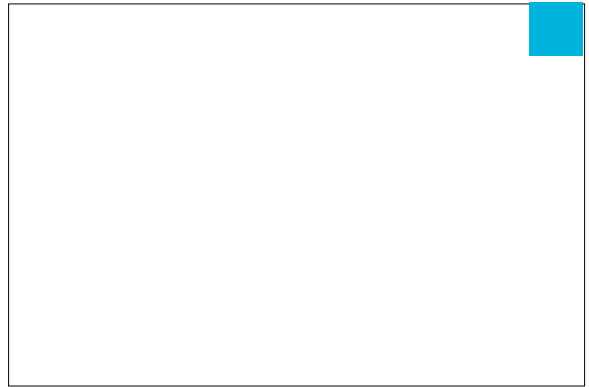
Electrical Criteria

- 100 footcandles at 3 ft. above the floor should be provided.
- Provide six data outlets each grouped with a quadruplex outlet in music room.
- Provide cabling in ceiling for classroom camera.
- Provide cabling in ceiling for wireless access point.
- Provide television connection in music room.
- Provide data outlet in music room and offices.
- Provide electrical outlets elsewhere at 6' on center.
- Provide intercom/phone with volume control and privacy feature.
- Provide Teaching Wall per detail in A/E Guide.

Furniture, Fixtures and Equipment

VOCAL MUSIC

CHORAL CLASSROOM



OBJECTIVES

Curriculum objectives for the high school music program are those found in the North Carolina Standard Course of Study, which is aligned with the National Standards for Arts Education. These objectives include aspects of creating, listening to, performing, and analyzing music, in addition to focusing on specific subject matter.

CAPACITY

1 teacher 80 students

ACTIVITIES

The primary activity in high school instrumental music classes is the study of performance techniques and music literature through large group instruction. Small ensemble and individual or small group instruction are frequent parts of the instructional plan. Opportunities are provided for independent learning and the development of basic music knowledge and skills related to the literature studied. Music theory includes ear training, composition, and analysis. Classes are supported by keyboards, computers and recording and playback equipment.

DESIGN CONSIDERATIONS

- The high school music program works jointly with the areas of dance and drama as well as teachers in the core curriculum to support the educational goals of the school. Easy access to the stage as well as to other performing art classes is important.
- The location of the music rooms should consider the sound requirement of the instructional program in music.
- All rooms and stages must be wheelchair accessible.
- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide 1900 sq. ft. for 80 vocalists.
- Ceiling should be 16'-20' in the music room, (10' in other non-rehearsal spaces).
- Cubic volume of the rehearsal room and shape of its walls have a profound effect on the quality of the acoustics. Cubic volume is reduced by every piece of furniture that is placed within the room.
- Provide 350-500 cu. Ft. per student.
- Provide acoustical treatment of the space using absorptive materials, non-parallel walls.
- Parallel walls are okay as long as the room is rectangular and a 3:2 ratio exists.
- Rooms must have a mixture of absorption and diffusion to create the acoustics necessary for critical listening.
- Use 3" thick absorber panels.
- Optimal reverberation of a choral classroom is between .1.0-1.3 seconds. Most choral music teachers prefer at least 1.2.
- Enlist the services of a reputable acoustic company to provide an acoustic analysis and panel layout recommendation of the space. Also, one that will guarantee the Acoustic Analysis after installation. (Wenger provides this service for free.)
- In-lay acoustical ceiling should be specified with .95 NRC rated ceiling tile, rather than standard gypsum board.
- All room entrances should have double doors with removable center post. Doors shall have acoustic seals.
- Provide wide hallways and doorways leading to the auditorium to enable moving large music equipment and a grand piano from the instrumental rehearsal room into the space.

- Use portable seated risers as opposed to permanent concrete risers, thus reducing cubic volume and cost, and providing some flexibility in the space. Consider Wenger StageTek as the basis for design. Portable risers should be safe and sturdy with guardrails.
- An accessible water fountain should be provided in the music room.
- Direct access to outside should be provided; must be wheelchair accessible.
- Music area should be able to be sealed off from the remainder of the building on nights and weekends.
- Sink and counter should be provided.
- Music lab, practice rooms, and ensemble rooms should be designed to be shared by instrumental and choral music.
- Carpet absorbs high frequency sounds and is not recommended in choral music spaces.
- Secure, ventilated hanging storage should be provided to protect choral robes and garments and prevent mildew.
- Owner to provide current "Performing Arts Equipment List" for use in planning for storage needs of loose music equipment and instruments.
- Provide six 36"x12"x54" shelving units (two lockable) in music room to accommodate textbooks, resource books, recordings, compact discs support materials.
- Provide 18" shelving in the storage areas for storage of sound and recording equipment, Orff instruments, and other equipment. Include area for storage of standing risers.
- Provide locks on all cabinets.
- Provide one 4'x12' markerboard located behind the podium. Top of board to be 6'-8" AFF.
- Provide one 4'x12' tackboard. Top of board to be 6'-8" AFF.
- Provide (3) standard 4-drawer file cabinets for choral music storage.
- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.
- 1" mini-blinds for all windows, typical

Electrical Criteria

- 100 footcandles lighting should be provided at 3 ft. above floor.
- Provide television connection in music room.
- Provide computer data outlet in music room and office.
- Provide cabling in ceiling for classroom camera.
- Provide cabling in ceiling for wireless access point.
- Provide electrical outlets elsewhere at 6' on center.
- Provide intercom/phone with volume control and privacy feature.
- Provide Teaching Wall per detail in A/E Guide.

Furniture, Fixtures and Equipment

THEATER ARTS

AUDITORIUM

OBJECTIVES:

Objectives are to provide a large space for class/group meetings, to offer students the opportunity to increase the knowledge of literature through drama, to provide each student the opportunity to participate in performing arts, and to provide adequate and aesthetically pleasing space to encompass any activity in which the school may be engaged.

CAPACITY: Auditorium 725 seats
Dressing Rooms 15-20 people



ACTIVITIES:

- Assembly of the student body.
- One-time only cultural events.
- Honors assemblies.
- Concerts by school musical groups.
- Programs for elementary/middle school students.
- Symphony concerts.
- Theater productions.
- Dance classes on stage.
- Dance performances.
- Smaller group.
- Community use.
- Theatre Arts class and rehearsals on stage.

DESIGN CONSIDERATIONS:

- Auditorium seating must provide accessible, dispersed, integrated wheelchair and companion seating in accordance with ADAAG requirements.
- Provide tablet arms to 60 seats at the front middle of the auditorium, to allow a flexible teaching space or for large group testing. Tablet arms should be spaced every other row, every other chair, for approx. the first three rows.
- Auditorium should be shut off from the rest of the building during evening performances/activities.
- Auditorium should be in close proximity to the Fine Arts classrooms to facilitate instruction, rehearsals, and performances.
- Accessible parking is required close to the auditorium with accessible route of travel from parking to auditorium entrance.
- Provide accessibility from auditorium seating to stage.

PHYSICAL REQUIREMENTS

Stage:

- Provide the following curtains:
 - Bi-parting grand drape and valance.
 - Three sets of legs and borders.
 - Bi-parting rear curtain.
 - Mid-stage traveler.
 - Consider cyclorama curtain for lighting effects during dance or theatrical performances.
- Provide closed circuit communications system to allow back stage communication and sound operator to communicate during a show.
- Provide 16' wide projection screen (electrically operated), or consider (2) screens each side of stage.
- Provide on-stage cross over.
- Provide three 220 V electrical hook-ups at back stage (CMS to confirm).

- Provide stage floor of wood sleepers with finished pine plywood (not hardwood) on top, to be able to replace plywood as needed over time, painted black, with roll-up Marley floor for dance programs.
- Provide stairs or ramps to the stage, one on each side. Stairs to be wider and deeper than usual steps.
- Provide wide hallways and doorways leading to the auditorium to enable moving large music equipment and a grand piano from the rehearsal rooms into the space.
- Provide twenty-four pipes for hanging sets. Four should be motorized line sets for lighting battens. No fly space; provide tall space.
- Provide back wall painted grey.
- Provide base of Stage with:
 - One data drop with quadruplex outlet.
- Provide wireless access point.
- Provide the following back stage facilities (must be accessible):
 - Two dressing rooms with an accessible restroom in each.
 - Office located backstage with files/shelving for script storage and director's materials.
 - Data drop in office.
 - Provide Intercom/Phone with privacy feature in office.
 - Storage space for fold-up risers.
 - Set construction room/wood storage, opening off one wing with large enough roll-up door to bring large sets out of construction room onto stage. An outside door to this room is needed for delivering wood or large set pieces.
 - All rooms should be lockable.
 - Owner to provide current "Performing Arts Equipment List" for use in planning for storage needs of loose music equipment and instruments.
- Provide the following light/sound systems:
 - Accessible raised projection booth in rear of auditorium.
 - Provide followspots in the Projection Booth.
 - Safe cat walks to lighting over auditorium.
 - Provide an LED and relay-based lighting system.
 - Bars for light: One bar in recessed auditorium ceiling accessible from stage wings; Four electrical bars above stage.
 - Computerized theatrical lighting console, with keyboard and external monitor, capable of executing pre-programmed cues/presets. Console will be DMX-based and control no less than two universes.
 - Acoustical ceilings and walls.
 - Sound: Excellent quality sound system controllable from booth, stage, and back of house; portable ADA approved sound system; mike jacks in stage floor, wings and center stage.
 - Include wireless microphone system with 12 mics.

House:

- Provide the Auditorium House with:
 - Additional space for sound console in seating area, center of house.
 - Plastic seats that automatically flip up. Consider upholstered seats as bid alternate.
 - Hard surface carpet on aisles.
 - Sealed concrete under seats.
 - Dark color walls.
 - Electrical outlets in house floor.
 - Acoustic treatment to achieve reverberation of up to 1.0 seconds.

Lobby:

- Provide the Lobby/Commons with:
 - Accessible water fountain.
 - Ticket booth with counter not higher than 36" (per ADAAG).
 - Billboards.
 - Exhibit space.
 - Easy access to parking and must be accessible.
 - Can be closed off from rest of school for evening performances.
 - Recessed exhibit/trophy cases.
 - Space for receptions and special events.
 - Access to larger public rooms.

- Access to restrooms.
- Six extra seats for auditorium.
- Extra ceiling panels.
- Replacement parts/paint for anything else that must be matched.

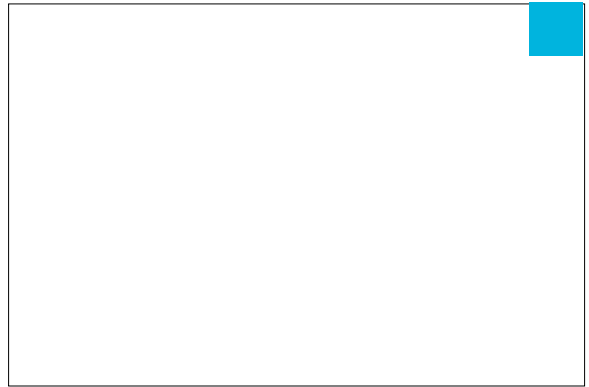
Dressing Room:

- Provide the Dressing Room with:
 - Long counter in each with lockable drawer units and knee space below.
 - Provide 4' high continuous mirror over counter.
 - Provide ample lighting and dedicated 20 amp convenience outlets to dressing room mirror stations. Hair dryers and curling irons draw a lot of amperage.

Projection Booth:

- Provide the Projection Booth with:
 - Counter top along auditorium wall designed to accommodate wiring and power requirements for lighting boards, sound boards and project equipment.
 - Internet data drop.
 - Control tap for sound system, lighting system, and closed circuit communications system.

THEATRE TECH CLASSROOM



OBJECTIVES

Curriculum objectives for the high school theater classes are those found in the North Carolina Standard Course of Study, which is aligned with the National Standards for Arts Education. Aspects of theater tech are integrated in the study of audio, lighting, video and stage production.

CAPACITY

1 teacher 25 students

ACTIVITIES

- Stage set design and production.
- Soundboard controls and operation.
- Theatrical lighting controls and operation.
- Video controls and operation.

DESIGN CONSIDERATIONS

- The theater tech class should be located adjacent to the auditorium with access to the stage, house, soundbooth and lighting platform.
- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide polished concrete floor with hardener.
- Provide high open ceiling (exposed structure).
- Provide oversized doors with removable mullion for moving sets between classroom and stage.
- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.
- 1" mini-blinds for all windows, typical

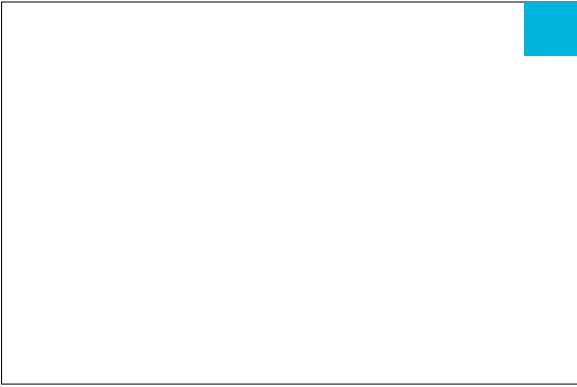
Mechanical Criteria

- Classroom should have adequate natural and artificial lighting, heating, ventilation, and cooling.
- Provide power, ventilation and dust collection for set building, similar to a carpentry lab/shop.

Electrical Criteria

- Provide overhead cord reels for power to woodworking equipment and tools.
- Classroom should be equipped with data, electrical, and intercom infrastructure.
- Provide one computer outlet/drop at Teaching Wall per the detail in the A/E Guide.
- Provide one computer outlet/drop with an adjacent quad electrical outlet at teacher desk.
- Provide twelve computer outlets/drops with a quad electrical outlet adjacent to each of the computer outlets in the student area.
- Computer outlets should be located in a manner to minimize conflicts with other classroom requirements such as exiting, HVAC, equipment, etc.
- Provide cabling in ceiling for classroom camera.
- Provide cabling in ceiling for wireless access point.
- Provide duplex receptacles located around all available wall surfaces in each classroom at a maximum of 6' on center.
- Provide intercom/phone with volume control and privacy feature.
- Provide Teaching Wall per detail in A/E Guide.

DRAMA CLASSROOM



OBJECTIVES

Curriculum objectives for the high school theater classes are those found in the North Carolina Standard Course of Study, which is aligned with the National Standards for Arts Education. Aspects of theater arts are integrated in the study of script writing, acting, designing, directing, researching, comparing art forms, analyzing and critiquing, and understanding context.

CAPACITY

1 teacher 25 students

ACTIVITIES

The high school drama class is active with students working in both large and small groups as well as on individual assignments. The emphasis in advanced classes is the development of theater skills through dramatic productions. Often several activities occur at the same time. Students participate in speaking, moving, creating, and evaluating. They demonstrate basic speech concepts and acting skills. Students plan and present dramatic situations and learn technical theater skills. Experience is provided in creating and producing original scripts as well as acting and presenting dramatic productions.

DESIGN CONSIDERATIONS

- The drama class should be located adjacent to the auditorium with direct access to the stage, dressing rooms and restrooms.
- Joint projects with the dance and music programs are common. The drama curriculum often supports the curriculum in literature and social studies. Convenient access to these departments will encourage joint planning by teachers.
- Room should be near locker room for changing purposes
- Should not be near media center or classrooms due to noise level
- Proper acoustical treatment and location in the building should allow for the activities of the drama class involving sound.
- Acoustical treatment should provide a reverberation time of no more than 1.0 seconds.
- A secure lockable storage area is required for audio-visual equipment, set storage, costume storage, and incidental theater items.
- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide acoustical properties to prevent disturbing other classes and echoing of music in room
- Absorber and diffuser panels should be utilized to provide appropriate acoustical properties and a quiet environment
- Walls should be clear of fixed furniture and casework
- Provide one bulletin board. Top of board to be 6'-8" AFF.
- Provide lockable Storage Room
- Provide rack for storing hanging costumes in Storage Room
- Provide shelving for storing boxed costumes, props, and instruments in Storage Room
- Provide bookcase for storage of textbooks in Storage Room
- Provide storage for technology equipment (cameras, lighting, etc)
- Provide storage for miscellaneous resources
- Water fountains should be easily accessible
- Locate near dressing rooms
- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.

- 1" mini-blinds for all windows, typical

Mechanical Criteria

- Individual heat and air conditioning control
- Quiet air handling system should be specified
- Fan control to ventilate odors from the room

Electrical Criteria

- LED lights recessed in the ceiling throughout the room
- Ability to dim lights
- Provide Teaching Wall per detail in A/E Guide.

Furniture, Fixtures and Equipment

- A portable 300 square foot stage platform (recommend Wenger staging), 24 inches in height, located at one end of the room to provide a space for rehearsals and small group performance

DANCE CLASSROOM

OBJECTIVES

Curriculum objectives for the high school dance classes are those found in the North Carolina Essential Standards, which is aligned with the National Standards for Arts Education.

CAPACITY

1 teacher 35-40 students

ACTIVITIES

The high school dance class is active with students working in both large and small groups as well as on individual assignments. Students at the high school level will have the option of studying an individual arts discipline as an area of interest, or specializing or completing a concentration in studies to prepare them for further education and/or a career in the arts. The North Carolina Essential Standards communicate what students should know and be able to do as a result of instruction at each proficiency level: beginning, intermediate, proficient, and advanced (9-12).

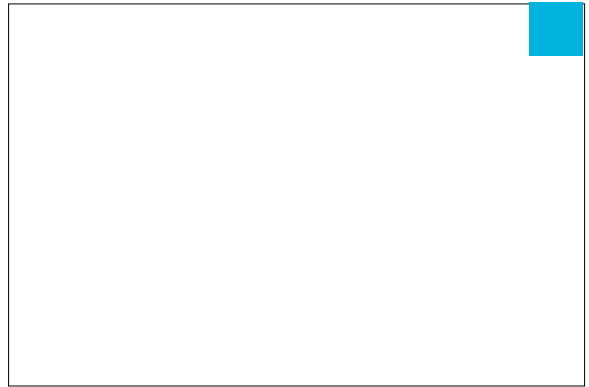
DESIGN CONSIDERATIONS

- The dance class should be located near the auditorium with direct access to the stage, dressing rooms and restrooms.
- Room should be near locker room for changing purposes.
- Should not be near media center or classrooms due to noise level.
- Proper acoustical treatment and location in the building should allow for the activities of the dance class involving sound.
- Acoustical treatment should provide a reverberation time of no more than 1.0 seconds.
- Provide lockable storage for Dance Classroom.
- A secure lockable storage room is required for audio-visual equipment, costume storage, and incidental dance items. Provide 2 racks for hanging costumes and space for storage tubs.
- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Floor should be a sprung wood floor with Marley covering.
- Provide acoustical properties to prevent disturbing other classes and echoing of music in room.
- Absorber and diffuser panels should be utilized to provide appropriate acoustical properties and a quiet environment.
- Walls should be clear of fixed furniture and casework.
- Shatterproof mirrors should be mounted on the longest wall. Mirrors should be 6 feet in height, 4 inches from the floor, and should extend the length of the wall, with drapes over mirrors.
- Provide two Dance Barres installed at 36" and at 42" above the floor, on the wall opposite the wall with the mirror.
- Provide one bulletin board. Top of board to be 6'-8" AFF.
- Provide a lockable Storage Room.
- Provide rack for storing hanging costumes in the Storage Room.
- Provide shelving for storing boxed costumes, props, and instruments in the Storage Room.
- Provide bookcase for storage of textbooks in the Storage Room.
- Provide storage for miscellaneous resources.
- Water fountains should be easily accessible.
- Provide a ceiling high enough to be clear of lifts and jumps; confirm height with CMS.
- Teacher desk to be located in Storage Room.
- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.
- 1" mini-blinds for all windows, typical



Mechanical Criteria

- Provide individual heat and air conditioning control.
- Physical nature of dance activities and age of students should be considered when calculating the fresh air ventilation rate.
- Provide exhaust fan control to ventilate odors from the room.

Electrical Criteria

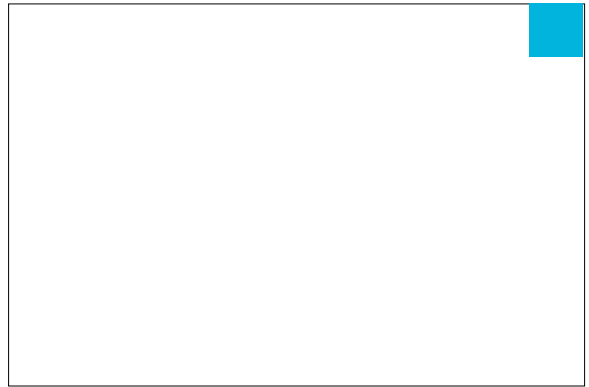
- Provide LED lights recessed in the ceiling throughout the room.
- Provide the ability to dim lights.
- Provide data drop and quad power outlet in the Storage Room for the teacher desk.
- Provide cabling in ceiling for classroom camera.
- Provide cabling in ceiling for wireless access point.
- Provide power for wall speakers.
- Provide intercom/phone with volume control and privacy feature.
- Provide Teaching Wall per detail in A/E Guide.

Furniture, Fixtures and Equipment

- CMS to provide teaching cart on wheels, with pullout desk for laptop

VISUAL ARTS

VISUAL ARTS - 2D DESIGN CLASSROOM



OBJECTIVES

To allow all students an opportunity to explore a wide range of activities designed to stimulate active participation in the creative process. At this stage in their development, the students will create opinions and judgments through the processes of selection and discrimination, based on exposure to a wide variety of art activities, media, personal experiences, and knowledge gained by commitment to their own learning responsibilities. The program should provide a sequential foundation that relates to the visual elements and design principles. Exploratory processes are expanded into a variety of media. Visual Arts – 2D Design should be integrated with learning across the disciplines.

CAPACITY

1 teacher 30-45 students

ACTIVITIES

Visual Arts - 2D Design students will develop concepts through creative activities in various media, including:

- Watercolor.
- Painting.
- Pencil.
- 2D design.

DESIGN CONSIDERATIONS

- Relation to entries: Provide art rooms located on the ground floor outside facing north, with doors that secure and open onto a 200 square foot patio.
- Relation to other subjects: The ideal placement would be a concentration of all the Visual Arts, Media Arts and Ceramics classrooms in one hall area.
- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide at a minimum one entire wall of windows that open down to the countertops, with light control by blinds or roller shades.
- Provide polished concrete floor with hardener.
- Provide Kiln Room located between the Visual Arts and Ceramics Rooms; see Ceramics Room page.
- Provide two 4'x8' markerboards, with all other walls having acoustical bulletin board material attached. Top of board to be 6'-8" AFF.
- Provide one 4'x4' tack board inside classroom near door. Top of board to be 6'-8" AFF.
- Provide for 2D artwork display in common area(s) of building (Lobby, Office area, etc.), using Snap-EZ display system to protect artwork.
- Provide cork strips lining Art wing corridors.
- In the Storage Room, provide sturdy, open, adjustable wood shelves (no cubbies), 24" deep, for supplies.
- Provide cabinets and countertops, built with adjustable shelving above, on all available walls. One countertop needs to be 36" deep to accommodate paper cutter by CMS, not located next to sink.

- Provide two lockable storage cabinets 42" wide, 72" high, and 24" deep, one for plastic storage bin storage (bin sizes to be provided by CMS Art Department).
- Provide 1 secure lockable cabinet for larger tools, located in Storage Room.
- Provide cabinets that contain 3" portfolio drawers to accommodate 30 students.
- Provide cabinet that will house 30" drawing boards; can be vertical orientation located at top of tall storage cabinet.
- Provide paper towel dispensers next to sinks.
- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.
- 1" mini-blinds for all windows, typical

Mechanical Criteria

- Provide hot and cold water to two large stainless steel handwashing/utility sinks (one needs to be ADA compliant), and to one stainless steel scullery sink with drain board tray on one side. Provide clay traps at all sinks. Provide hose bib for custodial use.
- Provide 24-hour ventilation capability in classroom and storage area.

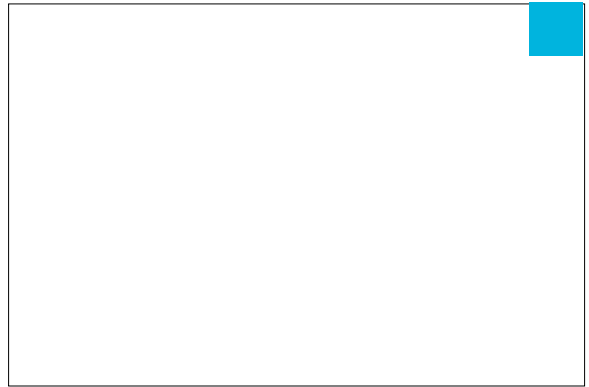
Electrical Criteria

- Provide special LED lighting that simulates daylight.
- Provide light switches by the doors (not behind the doors); lighting controls should allow for varying degrees of lighting throughout the space with separate switching for lights at Teaching Wall. Track lighting should be provided inside all display cases.
- Provide six data outlets located in the Visual Arts space. Provide a quad electrical outlet located adjacent to each of the data outlets. The data outlets should be located in a manner to minimize conflicts with other classroom requirements such as Teaching Wall, exiting, HVAC equipment, etc.
- Provide cabling in ceiling for classroom camera.
- Provide cabling in ceiling for wireless access point.
- In addition to the quad outlets mentioned above, provide duplex receptacles located around all available wall surfaces in each classroom at a minimum of 6' on center.
- Provide ceiling-mounted retractable cord reel power at Student tables.
- Provide intercom/phone with volume control and privacy feature.
- Provide Teaching Wall per detail in A/E Guide.

Furniture, Fixtures and Equipment

- CMS to provide 10 Student tables (table size to be provided by CMS Art Department).
- CMS to provide printing press, drying rack, stack rack, (2) Brentware carts and Rubbermaid cart in Visual Arts - 2D Design classroom.

VISUAL ARTS - CREATIVE CRAFTS AND DESIGN CLASSROOM



OBJECTIVES

To allow all students an opportunity to explore a wide range of activities designed to stimulate active participation in the creative process. At this stage in their development, the students will create opinions and judgments through the processes of selection and discrimination, based on exposure to a wide variety of art activities, media, personal experiences, and knowledge gained by commitment to their own learning responsibilities. The program should provide a sequential foundation that relates to the visual elements and design principles. Exploratory processes are expanded into a variety of media. Visual Arts – Creative Crafts and Design should be integrated with learning across the disciplines.

CAPACITY

1 teacher 30-45 students

ACTIVITIES

Visual Arts - Creative Crafts and Design students will develop concepts through creative activities in various media, including:

- Fibers.
- Crafts.
- Printmaking.
- Jewelry.

DESIGN CONSIDERATIONS

- Relation to entries: Provide art rooms located on the ground floor outside facing north, with doors that secure and open onto a 200 square foot patio.
- Relation to other subjects: The ideal placement would be a concentration of all the Visual Arts, Media Arts and Ceramics classrooms in one hall area.
- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide at a minimum one entire wall of windows that open down to the countertops, with light control by blinds or roller shades.
- Provide polished concrete floor with hardener.
- Provide Kiln Room located between the Visual Arts and Ceramics Rooms; see Ceramics Room page.
- Provide two 4'x8' markerboards, with all other walls having acoustical bulletin board material attached. Top of board to be 6'-8" AFF.
- Provide one 4'x4' tack board inside classroom near door. Top of board to be 6'-8" AFF.
- Provide for 2D artwork display in common area(s) of building (Lobby, Office area, etc.), using Snap-EZ display system to protect artwork.
- Provide cork strips lining Art wing corridors.
- In the Storage Room, provide sturdy, open, adjustable wood shelves (no cubbies), 24" deep, for supplies.
- Provide cabinets and countertops, built with adjustable shelving above, on all available walls. One countertop needs to be 36" deep to accommodate paper cutter by CMS, not located next to sink.

- Provide two lockable storage cabinets 42" wide, 72" high, and 24" deep, one for plastic storage bin storage (bin sizes to be provided by CMS Art Department).
- Provide 1 secure lockable cabinet for larger tools, located in Storage Room.
- Provide cabinets that contain 3" portfolio drawers to accommodate 30 students.
- Provide cabinet that will house 30" drawing boards; can be vertical orientation located at top of tall storage cabinet.
- Provide paper towel dispensers next to sinks.
- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.
- 1" mini-blinds for all windows, typical

Mechanical Criteria

- Provide hot and cold water to two large stainless steel handwashing/utility sinks (one needs to be ADA compliant), and to one stainless steel scullery sink with drain board tray on one side. Provide clay traps at all sinks. Provide hose bib for custodial use.
- Provide 24-hour ventilation capability in classroom and storage area.

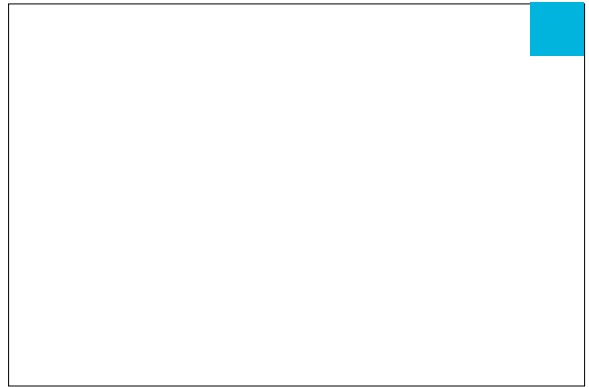
Electrical Criteria

- Provide special LED lighting that simulates daylight.
- Provide light switches by the doors (not behind the doors); lighting controls should allow for varying degrees of lighting throughout the space with separate switching for lights at Teaching Wall. Track lighting should be provided inside all display cases.
- Provide six data outlets located in the Visual Arts space. Provide a quad electrical outlet located adjacent to each of the data outlets. The data outlets should be located in a manner to minimize conflicts with other classroom requirements such as Teaching Wall, exiting, HVAC equipment, etc.
- Provide cabling in ceiling for classroom camera.
- Provide cabling in ceiling for wireless access point.
- In addition to the quad outlets mentioned above, provide duplex receptacles located around all available wall surfaces in each classroom at a minimum of 6' on center.
- Provide intercom/phone with volume control and privacy feature.
- Provide Teaching Wall per detail in A/E Guide.

Furniture, Fixtures and Equipment

- CMS to provide 10 Student tables (table size to be provided by CMS Art Department).
- CMS to provide printing press, drying rack, stack rack, (2) Brentware carts and Rubbermaid cart in Visual Arts – Creative Crafts and Design classroom.

MEDIA ARTS CLASSROOM



OBJECTIVES

To allow all students an opportunity to explore a wide range of activities designed to stimulate active participation in the creative process. At this stage in their development, the students will create opinions and judgments through the processes of selection and discrimination, based on exposure to a wide variety of art activities, media, personal experiences, and knowledge gained by commitment to their own learning responsibilities. The program should provide a sequential foundation that relates to the visual elements and design principles. Exploratory processes are expanded into a variety of media. Visual Arts – 2D Design should be integrated with learning across the disciplines.

CAPACITY

1 teacher 30-45 students

ACTIVITIES

Media Arts students will develop concepts through creative activities in various media, including:

- Digital photography
- Digital arts
- Computer and graphic design.
- Video/digital film; provide separate carpeted green room.

DESIGN CONSIDERATIONS

- Relation to entries: Provide art rooms located on the ground floor outside facing north, with doors that secure.
- Relation to other subjects: The ideal placement would be a concentration of all the Visual Arts, Media Arts and Ceramics classrooms in one hall area.
- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide at a minimum one entire wall of windows that open down to the countertops, with light control by blinds or roller shades.
- Provide sealed concrete floor.
- Provide two 4'x8' markerboards, with all other walls having acoustical bulletin board material attached. Top of board to be 6'-8" AFF.
- Provide one 4'x4' tack board inside classroom near door. Top of board to be 6'-8" AFF.
- Provide cork strips lining Art wing corridors.
- In the Storage Room, provide sturdy, open, adjustable wood shelves (no cubbies), 24" deep, for supplies.
- Provide lockable cabinet with power strip inside for recharging electronics.
- No daylight preferred.
- Provide open portfolio shelving for student work.
- Provide 36" deep counter for paper cutter and scanner.
- Provide space for green screen with sound attenuation inside Storage Room.
- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.

- 1" mini-blinds for all windows, typical

Electrical Criteria

- Provide special LED lighting that simulates daylight.
- Provide light switches by the doors (not behind the doors); lighting controls should allow for varying degrees of lighting throughout the space with separate switching for lights at Teaching Wall.
- Provide cabling in ceiling for classroom camera.
- Provide cabling in ceiling for wireless access point.
- Provide retractable ceiling cord reels at each of the (6) tables in center of room.
- Provide data and power for 2 regular and 1 large format printer. Provide power for flatbed scanner.
- Provide intercom/phone with volume control and privacy feature.
- Provide Teaching Wall per detail in A/E Guide.

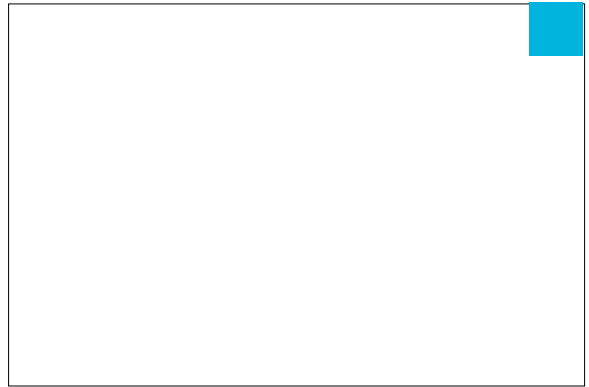
Mechanical Criteria

- Provide small utility sink.

Furniture, Fixtures and Equipment

- CMS to provide (30) computer tables around perimeter.
- CMS to provide (6) worktables on wheels in center of room (table size to be provided by CMS Art Department).

CERAMICS CLASSROOM



OBJECTIVES

To allow all students an opportunity to explore a wide range of activities designed to stimulate active participation in the creative process. At this stage in their development, the students will create opinions and judgments through the processes of selection and discrimination, based on exposure to a wide variety of art activities, media, personal experiences, and knowledge gained by commitment to their own learning responsibilities. The program should provide a sequential foundation that relates to the visual elements and design principles. Exploratory processes are expanded into a variety of media. Visual Arts – 2D Design should be integrated with learning across the disciplines.

CAPACITY

1 teacher 30-45 students

ACTIVITIES

Ceramics students will develop concepts through creative activities in various media, including:

- Clay.
- Large construction.
- Sculpture.

DESIGN CONSIDERATIONS

- Relation to entries: Provide art rooms located on the ground floor outside facing north, with doors that secure and open onto a 200 square foot patio.
- Relation to other subjects: The ideal placement would be a concentration of all the Visual Arts, Media Arts and Ceramics classrooms in one hall area.
- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide at a minimum one entire wall of windows that open down to the countertops, with light control by blinds or roller shades.
- Provide polished concrete floor with hardener, with a floor drain with solids interceptor.
- Provide Kiln Room located between the Visual Arts and Ceramics Rooms; 2 Kilns required, can be in same Kiln Room. Provide rolling carts in Kiln Room.
- Provide (2) Skutt kilns, can be located in same Kiln Room, with Enviro-vents attached to bottom to remove fumes, plus ceiling vent to extract heat. Consider omitting ceiling tiles in room. Provide sprinkler heads with high heat rating.
- Provide two 4'x8' markerboards, with all other walls having acoustical bulletin board material attached. Top of board to be 6'-8" AFF.
- Provide one 4'x4' tack board inside classroom near door. Top of board to be 6'-8" AFF.
- Provide large display case with shelving for 3D work accessed on Classroom side, open to Corridor with glass on Corridor side only.
- Provide cork strips lining Art wing corridors.
- In the Storage Room, provide sturdy, open, adjustable wood shelves (no cubbies), 24" deep, for drying pottery and supplies.

- Provide sturdy open wood adjustable 24" d. shelves (no cubbies) in lieu of cabinets and countertops on all available walls.
- Provide one lockable storage cabinet 42" wide, 72" high, and 24" deep, for plastic storage bin storage (bin sizes to be provided by CMS Art Department).
- Provide paper towel dispensers next to sinks.
- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.
- 1" mini-blinds for all windows, typical

Mechanical Criteria

- Provide hot and cold water to two large stainless steel handwashing/utility sinks (one needs to be ADA compliant), and to one stainless steel scullery sink with drain board tray on one side. Provide clay traps at all sinks. Provide hose bib for custodial use.
- Provide 24-hour ventilation capability in classroom and storage area.

Electrical Criteria

- Provide special LED lighting that simulates daylight.
- Provide light switches by the doors (not behind the doors); lighting controls should allow for varying degrees of lighting throughout the space with separate switching for lights at Teaching Wall. Track lighting should be provided inside all display cases.
- Provide six data outlets located in the Ceramics space. Provide a quad electrical outlet located adjacent to each of the data outlets. The data outlets should be located in a manner to minimize conflicts with other classroom requirements such as Teaching Wall, exiting, HVAC equipment, etc.
- Provide cabling in ceiling for classroom camera.
- Provide cabling in ceiling for wireless access point.
- In addition to the quad outlets mentioned above, provide duplex receptacles located around all available wall surfaces in each classroom at a minimum of 6' on center.
- Provide ceiling-mounted cord reel power for ceramic wheels by CMS.
- Provide intercom/phone with volume control and privacy feature.
- Provide Teaching Wall per detail in A/E Guide.

Furniture, Fixtures and Equipment

- CMS to provide 8 Student tables (table size to be provided by CMS Art Department).
- CMS to provide 15 ceramic wheels. Provide low shelving in between rows of wheels.
- Provide wall space for hand-powered clay extruder by CMS.
- CMS to provide (2) slab rollers with own table and Rubbermaid cart.

CAREER AND TECHNICAL EDUCATION

HEALTH SCIENCE / NURSING FUNDAMENTALS

OBJECTIVES

The Health Science / Nursing Fundamentals program seeks to prepare students to be more competitive in a global society through a curriculum that is tailored to the health science and nursing fields of study. This program will provide students with knowledge and skills needed to take the North Carolina Nurse Aide Exam, using classroom and lab (patient care) instruction. Prerequisites to taking the Nursing Fundamentals class are Health Science I and II.



North Carolina high schools, through Health Occupations Education programs, have the opportunity to offer state-approved Nurse Aide I training. A memorandum of understanding between the North Carolina Division of Health Service Regulation/Health Care Personnel Registry Section/Center for Aide Regulation Education and the North Carolina Department of Public Instruction (NCDPI) gives management responsibility for Nurse Aide I state-approved training in high school programs to the Health Occupations Education Nurse Aide office at the NCDPI. State-approved high school Nurse Aide training programs meet the same standards as all other state-approved Nurse Aide I training programs in North Carolina.

CAPACITY

1 teacher to 20 students for Health Science II.

1 teacher to 10 students for Nursing Fundamentals.

This is a 2 teacher program, 20 students max capacity (as set by DPI).

ACTIVITIES

Provide combination of classroom and lab (patient care) instruction, and testing.

Nurse Aide workplace fundamentals

- Understanding role, function legal and ethical responsibilities.
- Communication skills, interpersonal skills, and physical care skills.
- Infection control and safety and emergency skills.

Nurse Aide patient care skills

- Understanding skills related to patients' vital functions and movement.
- Understanding skills related to patients' hygiene, grooming, skin integrity and living environment needs.
- Understanding skills to provide for patients' nutrition, hydration and elimination needs.

DESIGN CONSIDERATIONS

- Drawing/diagram of Health Science II classroom, Nursing Fundamentals classroom/lab, office and support spaces must be submitted to NC DPI for review with program application.
- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

NOTE: The following Criteria are required in order for the CMS Health Sciences/Nursing Fundamentals Program to receive certification as a State approved Nurse Aide I program, and MUST be followed closely.

Architectural Criteria

- Instructional areas: Provide classroom space for Health Science II instruction. Provide classroom with adjacent lab space (patient care stations) for Nursing Fundamentals instruction, lab and testing. Provide door connecting Health Science II classroom to Nursing Fundamentals classroom/lab. Provide 10-12 4ft-high lockers for securing student belongings during clinical site visits while students are away from school.
- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.

- Patient Care Lab area: Provide lab area with at least 2 patient care stations, 3 is preferred. Each patient care station to be 13' x 14', enclosed 3 sides by continuous, ceiling hung privacy curtains. Each station to have hospital bed (3'-6"x7'-0"), wheelchair space (30"x48"), sink, bedside cabinet (1'-8" square), overbed table (30"x16"), medical chair/recliner, wall clock with 24-hour time, bedside commode, IV pole mounted to patient bed and a rolling IV pole, wall-mounted paper towel dispenser near sink (tri-fold pull-down type), wall-mounted glove dispenser, wastebasket, linen receptacle, mannequin, and 'Simulation Patient Headwall'. Provide 5' clear to curtains on all sides of hospital bed. Provide refrigerator with ice maker, mobile patient lift, full-size patient scale and stainless steel surgical trays.
- Lab-Utility area: Provide a separate "Soiled" and "Clean" area with sink(s)- (1 or 2) deep and wide to accommodate hand washing and washing/drying of patient care items such as washbasin, bedpan, urinal, dishes, trays, etc. Provide plastic laminate counter space, at least 3 feet, which would serve as both clean and/or dirty areas. This area is required for In-facility Testing purposes in addition to instructional purposes. Provide 36"x36" wall cabinet with 2 or 3 shelves, hung above the counter space for storage of items such as paper towels, gloves, detergent, scrub brushes. Provide goggles sanitizing cabinet. Provide a standard trash and a "red" or bio-medical trash receptacle.
- Office: Provide enclosed teacher office adjacent to classroom/lab, with plenty of glass for room supervision. Office door to be lockable, for secure storage of student records. Provide lockable file cabinets.
- Laundry Room: Provide laundry room adjacent to lab area, connected by adjoining corridor, with residential washer and dryer. Vent dryer to exterior. Provide shelving/storage for laundry supplies. Provide clean area separate from dirty area hamper. Provide folding area.
- Lockable storage room: Provide adjacent to lab area, connected by door, for storage of scales, stretchers, ambulation devices (walkers, canes, crutches), CPR training equipment (shelving for 4 mannequin bags with 5 mannequins in each, AEDs, consumable supplies such as resuscitation devices), commode chairs, wheelchairs, patient lift. Provide 1"x6" wooden strip with large hooks attached be bolted to the wall 60"-72" above the floor to hang crutches, canes, walkers. (See Furniture, Fixtures and Equipment below for lockable storage cabinets.)
- Provide door into lab area sized for passage of patient stretchers (3'-8" min.)
- Provide door to exterior from classroom/lab with access to parking area, for deliveries and students to travel offsite.
- Provide small refrigerator and microwave in lab area.
- Provide area for students to practice manipulating a wheelchair and shower chair into a bathroom shower/bath, as well as learning to transfer a patient from a wheelchair to the commode and sink area, either by locating the Modified Restroom adjacent to the Nursing Lab area, or by providing a "faux" accessible bathroom area.
- Provide lockable, deep, tall storage cabinets within lab area, with shelving to accommodate bins for storage of lab supplies; linens, sheets, towels, washcloths, personal protective equipment, hygienic care such as bath basins, mouth care equipment, foot care equipment, feeding equipment, assessment tools, BP equipment, thermometers, other ambulation devices, bedpans, urinals, sitz baths, gloves, pillows.
- Provide shelving for books and resources.
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.
- 1" mini-blinds for all windows, typical

Mechanical Criteria

- Provide sink with hot and cold water in each patient care station if possible; if not, provide one sink near patient area. Provide sink large enough for proper handwashing.
- Provide water to refrigerator ice maker in patient care lab area.

Electrical Criteria

- Provide power for laptop charging station.
- Provide power in each patient care station for electric patient bed, wall clock, and Simulation Patient Headwall. Simulation Patient Headwall simulates typical hookups for services (oxygen, medical air, vacuum and a mounting slide for vac canister). Provide labeled electrical outlets to mimic "Critical/Emergency" versus "Normal" power as in a hospital setting at each Simulation Patient Headwall.
- Provide ceiling light and dome light in each patient care station with its own 3-way wall switch, for control within station and at classroom door. Lights to be dimmable.
- Provide call button in each patient care station.
- Provide dedicated phone extension and fax line in teacher's office, required to be an in-facility Nurse Aide test site.
- Provide power for washer and dryer in laundry room.
- Provide power for goggles sanitizing cabinet in Lab-Utility area.
- Provide Teaching Wall per detail in A/E Guide.

Furniture, Fixtures and Equipment

- Provide 20 student desks or 5-6 tables, with chairs, 4 students per table, in classroom area. Individual desks are preferred. Nurse Aide testing requires 3' spacing between chairs.

MARKETING

OBJECTIVES

Marketing Education prepares students for initial employment and advancement in marketing, merchandising, and management of enterprises engaged in marketing. The instructional program includes subject matter and learning experience related to the performance of activities that direct flow of goods and services from the producer to the consumer.

- Enable students to increase their occupational efficiency through classroom instruction, individual projects, cooperative work experience, laboratory experiences, internships, and co-curricular student organization activities.
- Help students develop an understanding and appreciation of the social and economic values of the production, distribution, and consumption of goods and services.

Course sequence taught in this area includes Marketing, Marketing Applications, International Marketing and Strategic Marketing. Industry credentials include Introduction to Salesforce Trailhead.

CAPACITY

1 teacher/coordinator per class 30 students per class

ACTIVITIES

- Classroom instruction.
- Individual projects.
- On-the-job training coordination.
- Laboratory experiences.
- Student organization (DECA) activities.
- Computer simulations.
- Teacher and student demonstrations.
- Audio visuals.
- Material and project displays.
- Monitoring and tracking social media.

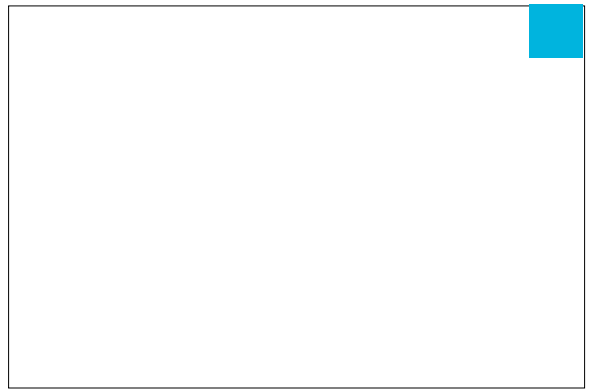
DESIGN CONSIDERATIONS

- Provide 4 classroom spaces per high school, 2 classrooms clustered with Business Management and Graphic and Digital Design classrooms, and other 2 classrooms floated elsewhere in building.
- Provide Teaching Wall per detail in A/E Guide.

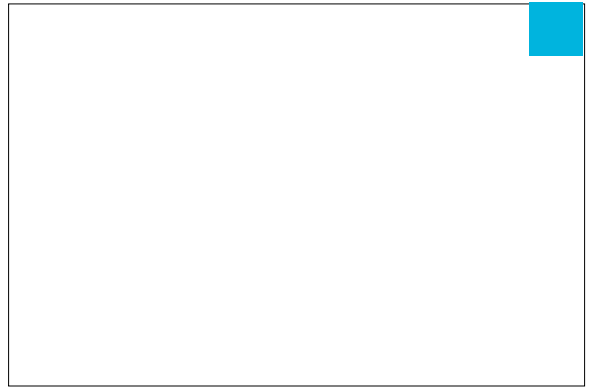
PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide 6' of base and wall cabinets.
- Provide student collaborative spaces within classrooms using sets of (2) 42" monitors next to each other.
- Provide a small meeting/presentation space that is separate from the main classrooms for collaborative work and presentations.
- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.
- 1" mini-blinds for all windows, typical
- See additional Criteria listed under General Classrooms.



SOFTWARE DEVELOPMENT



OBJECTIVES

Software Development is designed to prepare students as viable competitors in the business world and for advanced educational opportunities upon graduation. Software Development is a comprehensive curriculum at the high school level that provides students with meaningful instruction in computer science, computer programming, and software development.

Students will study new and emerging developments in software development basics, applications, and systems while enhancing technical skills, academic foundations, communication, leadership, teamwork, ethics, and legal responsibilities. Communication skills, problem solving, research, and critical thinking are reinforced in this curriculum.

Course sequence taught in this area includes AP Computer Science Principles, Computer Programming I, AP Computer Science A and Software Development Fundamentals: Double Block. Industry credentials include Microsoft Technical Associate: Data Fundamentals and Microsoft Technical Associate: Software Fundamentals.

CAPACITY

1 teacher 24 students

ACTIVITIES

- Classroom instruction.
- Individual projects.
- Laboratory experiences.
- Computer simulations.
- Teacher and student demonstrations.
- Audio visuals.
- Material and project displays.

DESIGN CONSIDERATIONS

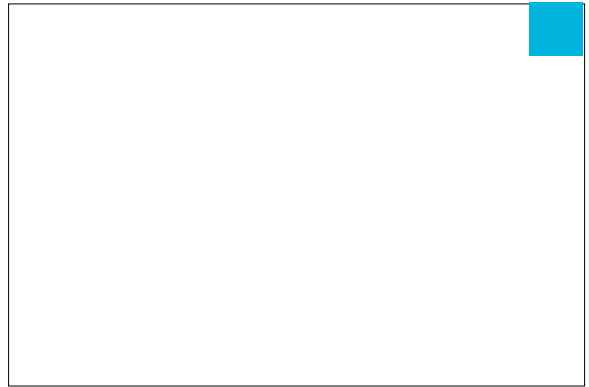
- Program requires 2 of these classroom types.
- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide computers around the perimeter of the room.
- Technology connection is hardwired. Accommodate 2 monitors at each student work station (2 – 21” monitors or 1-30” monitor).
- Each wall will have a large monitor display, in each corner of the room for better visibility.
- Accommodate 2 students per desk.
- The center of the room will use round tables to accommodate the 12 student work stations.
- Printing is needed.
- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide one 4’ x 4’ tack board in hallway near the classroom door. Top of tack board to be at 6’-8” AFF.
- 1” mini-blinds for all windows, typical
- See additional Criteria listed under General Classrooms.

ARCHITECTURE AND ENGINEERING



OBJECTIVES

The Architecture and Engineering pathway offers an overview of the history of architecture, design, engineering and advanced manufacturing. The pathway integrates the latest industry standard software and advancements. It also provides opportunities for internships, job shadowing, apprenticeships, portfolios, and industry standard certifications.

Course sequence taught in this area includes Drafting – Architecture I, Drafting – Architecture II, Drafting – Architecture III and Project Lead The Way – Civil Engineering and Architecture. Industry credentials include AutoDesk Certified User and SolidWorks.

CAPACITY

1 teacher 24 students

ACTIVITIES

- Classroom instruction.
- Individual projects.
- Laboratory experiences.
- Computer simulations.
- Teacher and student demonstrations.
- Audio visuals.
- Material and project displays.
- Activity-, project-, and problem-based (APPB) learning.
- Analyze, design and build various systems and models



DESIGN CONSIDERATIONS

- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Secured storage needed.
- Think about the “tack board” concepts.
- Should be close to Environmental Sustainability Classroom with an exterior door.
- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide one 4’ x 4’ tack board in hallway near the classroom door. Top of tack board to be at 6’-8” AFF.
- 1” mini-blinds for all windows, typical

Mechanical Criteria

- Sink needed
- Water is required to wash hands and cleanup required.

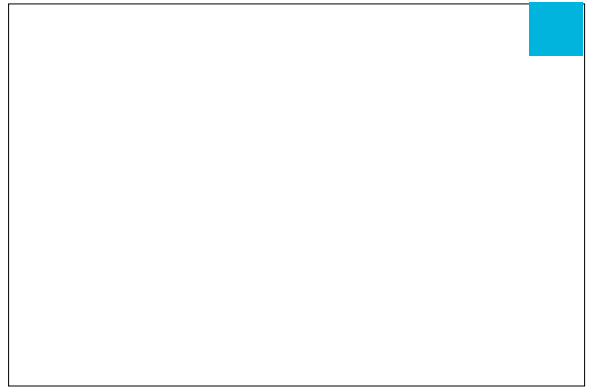
Electrical Criteria

- Desktop technology using Revit Software (hard connection) and power – power poles
- Provide Teaching Wall per detail in A/E Guide.

Furniture, Fixtures and Equipment

- Cabinetry needed for storage, think about the project trays and storage concepts Shana discussed.
- Furniture Concerns – book shelving, drafting tables
- Need equipment information regarding if a plotter is used.
- Furniture layout is important
- Wide format plotter
- Laser printer
- 1 or 2 work tables for collaboration space
- 3D printer
- Mobile Presentation Boards – 2 provided
- 2-65” cart mounted TV’s

ADV. MANUFACTURING AND ENGINEERING



OBJECTIVES

The Advanced Manufacturing and Engineering pathway teaches about manufacturing processes, product design, robotics, and automation. Manufacturing jobs are increasing but the industry has a severe shortage of workers equipped with the knowledge and skills needed to function in advanced manufacturing workplaces.

Course sequence taught in this area includes Intro to Engineering Design, Principles of Engineering, Computer Integrated Manufacturing and Engineering Design and Development. Industry credentials include OSHA 10 Hour General Industry Certification.

CAPACITY

1 teacher 24 students

ACTIVITIES

- Classroom instruction.
- Individual projects.
- Laboratory experiences.
- Computer simulations.
- Teacher and student demonstrations.
- Audio visuals.
- Material and project displays.
- Activity-, project-, and problem-based (APPB) learning.
- Analyze, design and build various systems and models



DESIGN CONSIDERATIONS

- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.
- 1" mini-blinds for all windows, typical

Mechanical Criteria

- X

Electrical Criteria

- Provide Teaching Wall per detail in A/E Guide.

Furniture, Fixtures and Equipment

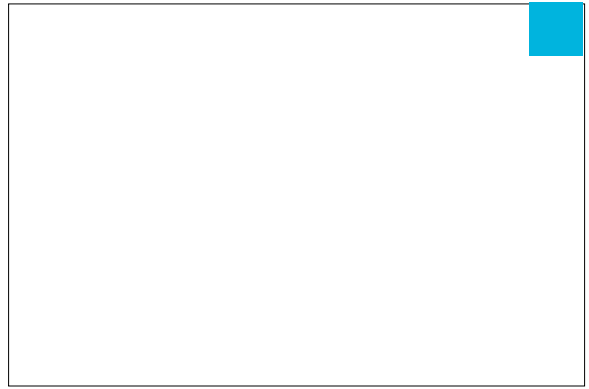
- X

GRAPHIC AND DIGITAL DESIGN

OBJECTIVES

The Graphic and Digital Design pathway is a sequence of courses and the use of Adobe Creative Cloud software to help develop skills in video and image manipulation, web development and visual communication. Students develop logos and magazine layouts to help prepare them for Adobe certifications and a career in graphic art and design.

Course sequence taught in this area includes Adobe Visual, Digital Media I, Adobe Video and Digital Media II. Industry credentials include Adobe InDesign, Adobe Illustrator, Adobe Photoshop and Adobe Premier Pro.



CAPACITY

1 teacher 24 students

ACTIVITIES

- Classroom instruction.
- Individual projects.
- Laboratory experiences.
- Computer simulations.
- Teacher and student demonstrations.
- Audio visuals.
- Material and project displays.

DESIGN CONSIDERATIONS

- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Visual digital recorders will be used.
- Monitor size 21".
- Storage for equipment.
- Storage room needed
- Suggested to be paired with Marketing classrooms
- Provide a way to display finished work in and out of the classroom.
- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.
- 1" mini-blinds for all windows, typical

Mechanical Criteria

- X

Electrical Criteria

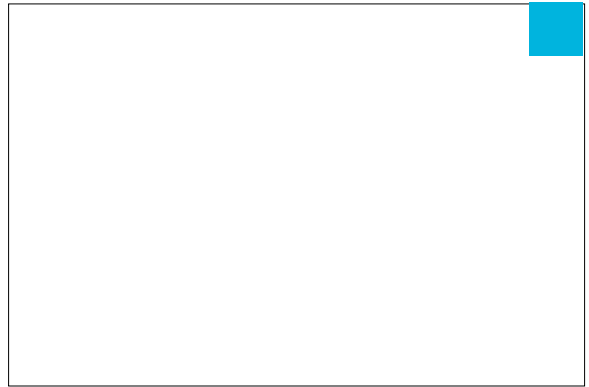
- Provide Teaching Wall per detail in A/E Guide.

Furniture, Fixtures and Equipment

- High top tables will be used to accommodate 2 students with 4 monitors



ENVIRONMENTAL SUSTAINABILITY



OBJECTIVES

The Environmental Sustainability pathway teaches students about plants, the earth and how to protect and cultivate the environment. Environmental and natural resource courses provide leadership and presentation skills. The hands on experience in this pathway gives students experience in the greenhouse, outside, and in the classroom.

Course sequence taught in this area includes Sustainable Agriculture I, Sustainable Agriculture II, Natural Resources I and Natural Resources II. Industry credentials include OSHA 10 Hour General Industry Certification, Young Plant Professional and Pesticide Control, and Hunter's Safety.

CAPACITY

1 teacher 24 students

ACTIVITIES

- Classroom instruction.
- Individual projects.
- Laboratory experiences.
- Computer simulations.
- Teacher and student demonstrations.
- Audio visuals.
- Material and project displays.



DESIGN CONSIDERATIONS

- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Water conservation and natural resources curriculum is taught.
- Outside access is required.
- Bee Keeping will be performed. Additional information is forthcoming on bee hives and safety concerns.
- Wireless Chrome Books will be used.
- A smaller hydroponics system will be provided in the classroom
- Storage needs – cabinetry and secured storage room for equipment and educational resources.
- Equipment coordination needed.
- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.
- 1" mini-blinds for all windows, typical

Mechanical Criteria

- X

Electrical Criteria

- Provide Teaching Wall per detail in A/E Guide.

Furniture, Fixtures and Equipment

CULINARY ARTS AND HOSPITALITY

OBJECTIVES

The Culinary sequences cover basic food safety and sanitation practices, as well as cold and hot food production, baking and pastry and service skills. Students also learn how to use commercial equipment and knives, and about nutritional needs, kitchen and meal management, food preparation and time and resource management.

Nutrition programs play a vital role in the education of students. As a “partner in education” it is the role of child nutrition programs to make mealtime a pleasant experience by providing adequate dining and food preparation facilities which will encourage students to consume the nutritious meals needed for growth, development, and learning readiness.



Course sequence taught in this area includes Introduction to Culinary and Hospitality, Culinary I and Culinary II – Double Block. Industry credentials include ServSafe National Restaurant Association.

CAPACITY

1 teacher 29 students

ACTIVITIES

- Partnership sessions between CMS, the Piedmont Culinary Guild, the American Culinary Federation Chefs of Charlotte chapter, Central Piedmont Community College and Johnson & Wales.
- Presentations by local culinary professionals.
- Menu preparation competitions, including safety, sanitation, professional appearance, food preparation, terminology, skill level, teamwork, food presentation, temperature and taste.

DESIGN CONSIDERATIONS

- Classroom should be accessible to all students and staff for flexibility in scheduling and efficiencies of instruction time.
- Classroom should be of a size, shape and comfort level to be adaptable to general lectures, group gatherings or individual conference instruction.
- Food preparation:
- Storage area:
- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.
- 1" mini-blinds for all windows, typical

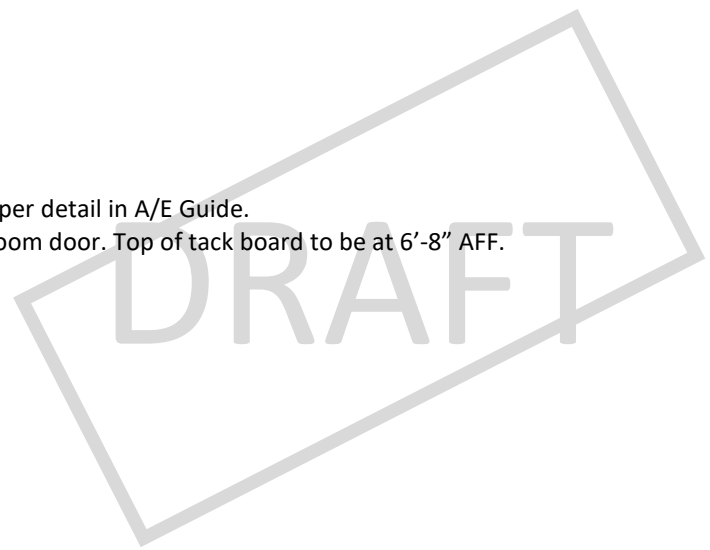
Mechanical Criteria

- X

Electrical Criteria

- Provide Teaching Wall per detail in A/E Guide.

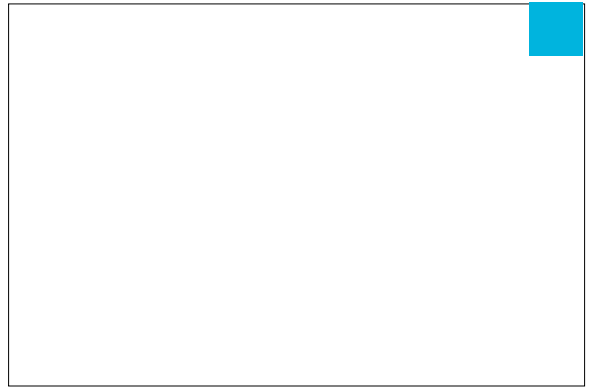
Furniture, Fixtures and Equipment



COSMETOLOGY

OBJECTIVES

The cosmetology pathway prepares students to earn state licenses and to learn theory and practical applications as outlined in state regulations governing the practice of cosmetology, by completing the steps for safe and effective cosmetic art services. Advanced students provide supervised cosmetic arts services to the public.



Course sequence taught in this area includes Principles of Business, Cosmetology I, Cosmetology II and Entrepreneurship I. Industry credentials include a Cosmetology License.

CAPACITY

1 teacher 24 students

ACTIVITIES

- Classroom instruction.
- Individual projects.
- Laboratory experiences.
- Teacher and student demonstrations.
- Audio visuals.
- Material and project displays.



DESIGN CONSIDERATIONS

- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.
- 1" mini-blinds for all windows, typical

Mechanical Criteria

- X

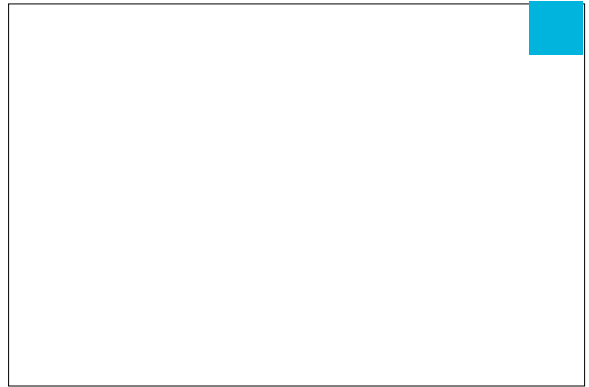
Electrical Criteria

- Provide Teaching Wall per detail in A/E Guide.

Furniture, Fixtures and Equipment

- X

BUSINESS MANAGEMENT



OBJECTIVES

Business Education provides students with instruction for and about business. Classrooms and laboratory experiences are designed to meet the following program outcomes:

- Occupational and entrepreneurial skills necessary for initial employment and advancement in a business career.
- Economic understanding needed for intelligent participation in a global economic system.
- Background information for further study in the field of business.
- Computer literacy for personal and work-related environments.

Course sequence taught in this area includes Principles of Business, Accounting I, and Business Management I and Business Management II. Industry credentials include Quickbooks Certification.

CAPACITY

1 teacher 30 students

ACTIVITIES

- Creating effective oral and written communication.
- Preparing and analyzing financial records.
- Operating appropriate equipment to process, store, retrieve, and distribute alphanumeric data.
- Developing skills related to economic literacy.
- Performing other consumer and business related tasks.
- Developing work related skills through internships or cooperative work experience.

DESIGN CONSIDERATIONS

- These labs should be located near the Marketing Classroom and Cosmetology Lab/Classroom.
- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.
- 1" mini-blinds for all windows, typical.

Mechanical Criteria

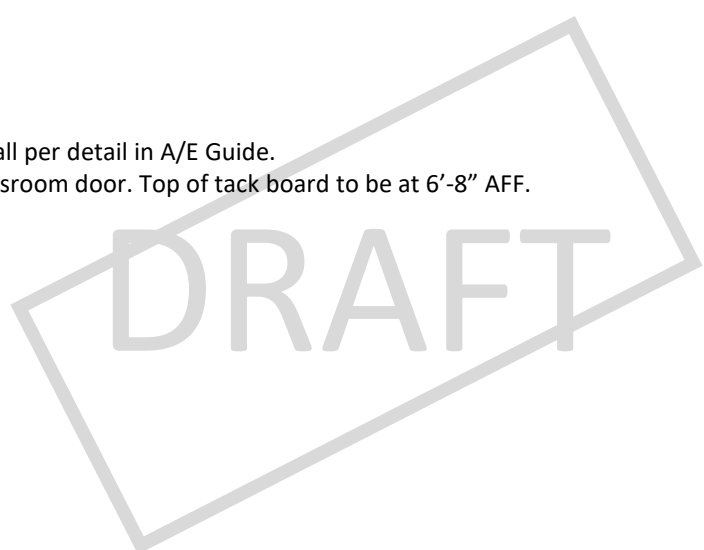
- X

Electrical Criteria

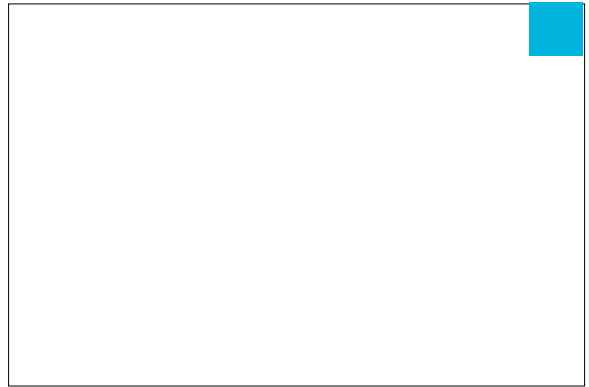
- Provide Teaching Wall per detail in A/E Guide.

Furniture, Fixtures and Equipment

- X



INTERIOR DESIGN



OBJECTIVES

The Interior Design pathway teaches students about the concepts of space planning and the use of environmentally sustainable materials, and combining creativity with precision and technical skills to design functional spaces for specific clients. Students will learn the fundamentals of interior design and basic skills in hand drawing and digital drafting, as well as architectural lighting, color theory, and furniture history. The pathway uses software tools such as Autodesk Revit and AutoCAD.

Course sequence taught in this area Interior Design I, Interior Design – Digital Applications, Interior Application and Advanced Studies – Interior Design Studio. Industry credentials include AutoDesk Revit User Certified.

CAPACITY

1 teacher 24 students

ACTIVITIES

- Classroom instruction.
- Individual projects.
- Laboratory experiences.
- Computer simulations.
- Teacher and student demonstrations.
- Audio visuals.
- Material and project displays.
- Activity-, project-, and problem-based (APPB) learning.
- Analyze, design and build various systems and models



DESIGN CONSIDERATIONS

- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.
- 1" mini-blinds for all windows, typical

Mechanical Criteria

- X

Electrical Criteria

- Provide Teaching Wall per detail in A/E Guide.

Furniture, Fixtures and Equipment

- X

JROTC

JROTC

OBJECTIVES

The JROTC program emphasizes character education, student achievement, wellness, leadership, citizenship, service to community and diversity. It prepares high school students for leadership roles while creating more constructive and disciplined learning environments within schools.

CAPACITY

JROTC Director and instructors - min (2) instructors; (1) senior officer and (1) NCO.
Number of cadets varies (100-300)

ACTIVITIES

- JROTC Leadership & Academic Bowl (JLAB)
- JROTC Junior Cadet Leadership Challenge (JCLC)
- Raider Teams
- Drill Teams
- Rifle Teams
- Orienteering team
- Color guard
- Adventure training teams
- Athletic competitions
- Community parades
- Summer camps
- Military Ball
- Field trips to service installations and national historical sites
- Drone camp

DESIGN CONSIDERATIONS

- No difference in design characteristics for the different service branches.
- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- JROTC Classroom(s) - Min. (2) 750 SF classrooms up to 150 cadets, add (1) additional classroom with each additional 100 cadets.
- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.
- Cadet Staff Workroom 250 SF min. for cadet administrative work.
- Men's and Women's Dressing Rooms for 5 cadets each.
- Instructors' Office(s) – (1) for senior officer at 150 SF and (1) shared by (2) NCO instructors at 200 SF (add 50 SF for each additional instructor). Small bulletin board.
- Activity Room/Indoor Rifle Range – Min. 30'x50' with operable wall, with adequate sound isolation between both sides, for use as (2) 750 SF classrooms as well. Target drops by JROTC. Provide recessed illuminated "Range In Use" warning signs at each door from Corridor into Activity Room/Indoor Rifle Range; see description of illuminated signs under Electrical Criteria below.
- Storage (supply) – 500 SF min. for up to 150 cadets. Locate residential washer and dryer in storage Room. Secure, ventilated, mobile hanging storage systems should be provided to protect uniforms and garments and prevent mildew, McCormick Hat and Uniform Caddy #8110050 or approved equal.



East Mecklenburg HS, Bergmann Associates

- Arms Room – 150 SF min (only arms allowed stored here) locked room. Guns to be stored in arms racks (by JROTC) in locked fenced cage.
- Drill and ceremony pad outside, 100'x80' min. hard surface, with gated access if possible so it can be closed off to cars during practice.
- Greenspace for exterior Raider and Adventure training (telephone poles for rope-bridge, chin-up bars built by JROTC).
- Provide polished concrete floor with hardener.
- 1" mini-blinds for all windows, typical

Mechanical Criteria

- Arms Room and Storage Room to have local dehumidification to protect uniforms from mold and rifles from rust.

Electrical Criteria

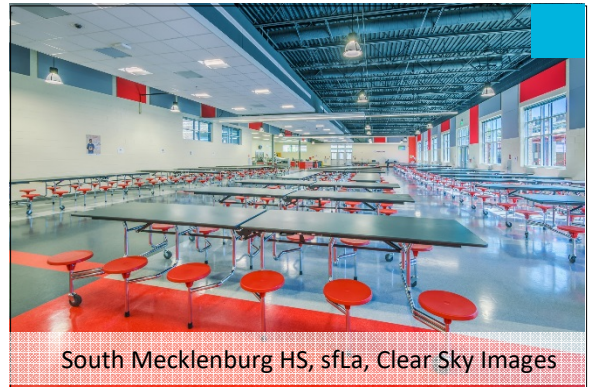
- Provide Teaching Wall per detail in A/E Guide.
- Provide (6) data drops and adjacent quad outlets for computers, (1) data drop/power for printer, in Cadet Staff Workroom.
- Provide cabling in ceiling for classroom camera.
- Provide cabling in ceiling for wireless access point.
- Offices to have phone, data and power for each instructor.
- Provide intercom/phone with volume control and privacy feature.
- Provide recessed illuminated "Range In Use" warning signs at each door from Corridor into Activity Room/Indoor Rifle Range; signs to be Cole Lighting SL191-277 ROF CC, or equal, 7' AFF, blank until lit, black background with red lettering.

CAFETERIA / CHILD NUTRITION

CAFETERIA AND KITCHEN

OBJECTIVES

Nutrition programs play a vital role in the education of students. As a “partner in education” it is the role of child nutrition programs to make mealtime a pleasant experience by providing adequate dining and food preparation facilities which will encourage students to consume the nutritious meals needed for growth, development, and learning readiness. The dining area is sized for three seatings of the design student population.



CAPACITY

Student Population/Three Seatings

ACTIVITIES

Receiving food and associate kitchen materials and equipment in order to prepare food for student’s meals to include breakfast, lunch and occasional snacks and community events.

DESIGN CONSIDERATIONS

- Dining area: Located adjacent to the multi-purpose room with a movable partition to divide these two spaces acoustically insulated to minimize noise from the adjacent area.
- Serving area: Adjacent to kitchen and dining with easy access for supply or fresh food; wheelchair accessible with appropriate counter heights.
- Food preparation: The food preparation and storage areas shall be accessible from a loading area to allow for deliveries of supplies and the removal of food debris.
- Dish wash area: Adjacent to dining room with traffic pattern not to interfere with serving lines.
- Manager’s office: Locate at rear of kitchen with full view of back door, storage entrances, and preparation areas. Window to outside with security screen.
- Employee restroom: Located adjacent to food preparation area opens to locker room.
- Locker room opens to kitchen with lockers sized per A/E Guide.
- Storage area: The food preparation and storage areas shall be accessible from a loading area to allow for deliveries of supplies and the removal of food debris. If storage is located directly next to a cooler or freezer, additional insulation is required to prevent possibility of mold.
- Separate security system for kitchen is recommended to allow early access by staff. Area to accommodate separate key pad zone
- Provide buzzer/doorbell at back entrance. Buzzer to “announce” in Kitchen near manager’s office
- Provide peephole on back door.
- Provide can wash facility with mop rack in delivery area and accessibility to dumpsters
- Provide dumpster pad and enclosure per details in A/E Guide Appendix.

PHYSICAL REQUIREMENTS

Dining Area:

- Provide 20 foot candles minimum. Dual switch to 40 foot candles of light is recommended for special occasions
- Provide additional wiring in walls for future satellite serving areas
- Provide 2 Ethernet ports and 2 electrical outlets over entrances to serving area for flat screen. See A&E Guide for current minimum requirements, typical.
- Provide ample electrical outlets
- Provide VCT Flooring
- Provide intercom.

- Provide television connection – minimum of two at 18" AFF
- Provide minimum two computer network drops with adjacent quad power outlets
- Do not limit all dining to the inside of the building. Patios and outdoor gardens may be utilized for dining
- Plan windows that are at eye level and allow light to enter and provide a pleasant outside view
- Material selections for ceilings and walls should be as sound absorptive as possible to reduce noise. Flags and ceiling hangings can reduce noise levels
- Provide wireless access point.
- Provide electric water cooler with bottle filler in Dining Area. Locate water cooler adjacent to Serving line.

Serving Area:

- 70 foot candles of light is recommended.
- Electrical connections required for equipment.
- Provide air conditioned kitchen.
- Provide floor drains as required for equipment.
- Provide data outlet paired with quadruplex outlet at each cashier.
- Provide quarry tile floor.
- Provide smooth durable washable wall surfaces.
- High school cafeteria projects to include remote serving areas with kiosks.

Food Preparation:

- 70 foot candles of light is recommended. Provide natural light whenever possible.
- Provide quarry tile floor.
- Provide electrical wiring as required for all equipment.
- Floor drains or floor sinks to be provided as required for equipment
- Provide vertical closure panels over the top of all walk-in freezers and coolers. Locate floor drains for these coolers and freezers out of traffic path.
- Provide hand wash sinks, where required server, kiosk and kitchen locations. Provide soap and tri-fold paper towel dispensers at all hand wash sink locations.
- Kitchen hood area: The exhaust hood shall be stainless steel with adequate lighting. The water source under the hood shall have a vacuum breaker. The fire suppression system push-button activator shall be located near the entry/exit door. Include stainless steel utility chase and fire suppression system.
- The utilities for the equipment shall be arranged in such a way to facilitate easy cleaning behind the equipment.
- Drains are needed throughout, especially under the braising pan, icemaker, etc.
- The location of drains should be out of circulation paths and appropriate for use when the equipment is tilted and the water is draining, and so that steam from the drain does not interfere with operation (pilot lights, etc.) of other equipment.
- CO sensor with digital readout are required in kitchen.
- Provide all kitchen food preparation equipment as specified by A/E Guide Appendix.

Dish Wash Area:

- 70 foot candles are recommended
- Provide direct wiring of dish machine
- Provide hood with fan to draw steam out of area
- Provide water temperature 140 degrees to kitchen 180 degrees by booster heater on demand
- Provide garbage disposal
- Provide smooth durable washable wall surfaces
- Hose bibb shall be located in the dish room.
- Provide wall mounted fans in the dishwashing room and as directed by CMS.

Storage Area:

- 70 foot candles are recommended
- Dry storage area to be ventilated with fresh air venting system
- A notice board for menu, message, and other types of communication is essential
- Must have flexible shelving. When planning new storage rooms think in terms of rows of shelving with adequate aisles between.

- Provide 4' x 6' bulletin board for employee communication.
- Rows of shelving with adequate aisles between are desired.
- Provide quarry tile floor
- Provide smooth durable washable wall surfaces
- Provide internal cold storage freezer and cooler
- Provide recycling area with bins in kitchen, delivery area, and cafeteria dining area
- Provide residential washer and dryer.

Manager's Office:

- 70 foot candles are recommended
- Provide ample electric outlets
- Provide 3'x 4' bulletin board.
- Provide smooth durable washable walls
- Provide 2 Data outlets paired with quadruplex outlets
- Provide intercom/phone with volume control and privacy feature.
- Provide telephone connection with kitchen speaker-bell
- Provide Kronos clock located outside Manager's Office.

MEDIA CENTER

MEDIA CENTER

OBJECTIVES

The school media program is the focal point of academic activity and should be the support for high, rigorous, and measurable standards for academic performance.

The 21st century media center must show a design that connects the school to outside sources and provides equitable access and use of information to all.

The restructured media program emphasizes teaching of all students at all levels to locate and discern the trustworthiness of print, audiovisual, and electronic resources within and outside the school.

“Access to the free flow of useful knowledge and information,” according to Information Power is essential to the individual’s ability to thrive in a world characterized by complex information systems.

We need to aim high and to go beyond recommended state standards to create spaces for flexible learning and accommodate student, teacher, and community access via devices, cable/open broadcast, global databases, and group and individual virtual learning experiences.

Moreover, changes in scheduling and making use of a variety of learning and teaching styles will require dual and/or overlapping uses of spaces for individuals, small groups and/or large groups.



Myers Park High School, Boomerang Design

CAPACITY

3 staff Student capacity varies, typ. 2 classrooms of 38-42 (plan for 85, min.), but can go up to 100

ACTIVITIES

- Main Use Room to provide for:
 - Circulation; checking out and returning material (book drop), processing overdues, general inquiries, and visual supervision of facility. Mobile and modular.
 - Multi-use work stations; clustered, high-top stations (1 to be accessible), for independent use but visible to staff, close to supervision.
 - Research; reading, studying, finding information in various formats, accessing electronic and print indexes, printing information, listening, viewing. Some tasks will occur at multi-use work stations and soft seating or other locations.
 - Informal Reading; meetings of book discussion groups, browsing. Multiple areas of different seating arrangements and sizes (i.e. two chairs by themselves, clustered seating, etc.)
- Three Large Group Instruction zones (with two that can combine) to provide for:
 - Whole class instruction, typ. 38 students in each.
 - Study, reference, viewing, listening, reading and browsing.
 - Staff development programs, meetings and presentations.
 - Digital presentation screen in at least two zones.
 - Two with mobile flexible tables and chairs, third with alternative seating.
 - Provide Teaching Wall per detail in A/E Guide.
- Office/Workroom to provide for:
 - Computer administrative tasks, program planning, management functions and visual control of other areas.
 - Administrative tasks.

- Making books, book jackets, graphic design, posters, signs, bulletin board materials, photographs, enlargements of pictures.
- Duplicating, laminating and dry mounting.
- Consultation.
- Large worktable.
- Laminator, copier, poster maker, paper cutter, printer (CMS to provide cut sheets).
- Equipment Storage Area to provide for:
 - Storage for back-up and specialized equipment.
 - Maintenance and circulation of equipment.
- A.V. Production/Control to provide for:
 - Visual control of other areas.
 - Audio/video tri-caster close-circuit systems (CMS to provide cut sheets or model #).
 - “Green” wall.

DESIGN CONSIDERATIONS

- Main Use Room:
 - Locate to be accessible from defined instructional areas.
 - Locate circulation area adjacent to entry points with visual control and access from office, workroom, and catalog area
 - Multit-use work stations should be in close proximity to main entrance, reference, and stack areas.
 - Informal reading area should be located away from quiet and study areas.
 - Lighting controls at individual areas.
 - Sound attenuation.
- Large group instruction areas should be flexible and visible. Provide Teaching Wall per detail in A/E Guide.
- Office should be able to see all areas.
- Office/Workroom to provide work table per the details included in the A/E Guide Appendix.

PHYSICAL REQUIREMENTS

- Provide Main Use Room with:
 - Circulation: Circulation desk at appropriate height for students with seating space for one or two workers. Refer to A/E Guide Appendix for Media Center casework.
 - Reference: 12” deep bookshelves for quantity of volumes given in A/E Guide.
 - Smaller display stands for periodicals.
 - 12” deep shelving.
 - General Collection: 12” deep shelving for quantity of volumes given in A/E Guide. Metal shelving. Modular for flexibility.
 - Data outlets.
 - Wireless access point(s) and charging stations located at key spots where mobile station would move to.
 - Intercom/phone with volume control and privacy feature.
 - Carpet.
- Provide Office/Workroom with:
 - Resilient flooring.
 - Glass panels above 3’ to provide visual access throughout Main Use Room.
 - Data outlets.
 - Intercom/phone with volume control and privacy feature.
 - Lockable cabinets with charging ports.
 - (1) 48”x84” high lockable storage units.
 - Two 48”x36” deep flat drawer storage units under worktable.
- Provide Equipment Storage Area with:
 - Four 36”x24” deep units open shelving.
 - Data outlets.
 - Vinyl tile floor.

- Electronic equipment recharging carts.
- Provide A.V. Production/Control with:
 - 12 (CMS to verify) linear feet of base cabinets with a combination of drawers and closed lockable storage.
 - Data outlets.
 - Vinyl tile floor.
 - Television connection.
 - Intercom/phone with volume control and privacy feature.
 - Electrical outlets at 6' on center.
 - Carpet.
 - Glass panels above 3' to provide visual access throughout Main Use Room.
 - The following TV Studio equipment:

• TV Studio Equipment	Model Number	Notes
Tricaster	Newtek – Mini Advanced 4K HD-4	
2 monitors	ASUS - VE228	
cabinet mounted underneath	Tripp-Lite – SRW6UDP	
Flex Control surface	Newtek – Flex Control Surface	
Keyboard & mouse		
2 laptops	Lenovo – New Model hasn't been determined yet.	

MAKERSPACE

OBJECTIVES

To provide a flexible space for hands on learning, digital learning, CTE.

ACTIVITIES

Team teachers engaged in conferencing, scheduling and planning strategies for students and conferences with parents.

DESIGN CONSIDERATIONS

- To be located adjacent to the third Large Group Instruction area of media center. Provide windows for observation by staff and other students.
- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide base and wall cabinets along one wall with a sink, per Casework Elevation below, with the following:
 - Closed cabinetry with lockable storage with electrical capacity to securely store devices while charging (iPads, small robots, etc.) and for storing devices we don't want students to access such as tools.
 - Open casework for some books and display of student work.
 - Counter for placing 3D printer and/or other equipment listed in chart below.
- Maximize the number of marker boards available in the space.
- Provide two 4'x4' tack boards. Top of board to be 6'-8" AFF.
- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide.
- Provide 1" mini-blinds for windows

Mechanical Criteria

- Provide individually controlled HVAC unit sized to accommodate students and equipment.
- Provide hot and cold running water to sink.

Electrical Criteria

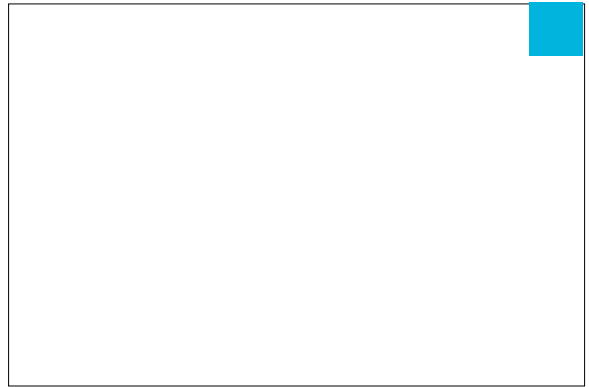
- Provide sixteen network drops with a minimum of two network drops available above base cabinets.
- Provide cabling in ceiling for classroom camera.
- Provide cabling in ceiling for wireless access point.
- Provide duplex outlets elsewhere around the space at 6' on center.
- Provide three electrical power reels mounted to the ceiling space evenly through the space.
- Provide intercom/phone with volume control and privacy feature.
- Provide Teaching Wall per detail in A/E Guide.

Furniture, Fixtures and Equipment

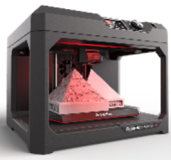




- Five tables with seating for 30 students. The size and height of tables is determined by the dimensions of the space and the grade level. Elementary is usually tables and chairs and secondary is counter height table with stools.
- 1 teacher chair (casters) and a mobile pneumatic teaching station
- 2 storage carts on casters with removable bins/trays
- 1 mobile dry erase or glass board

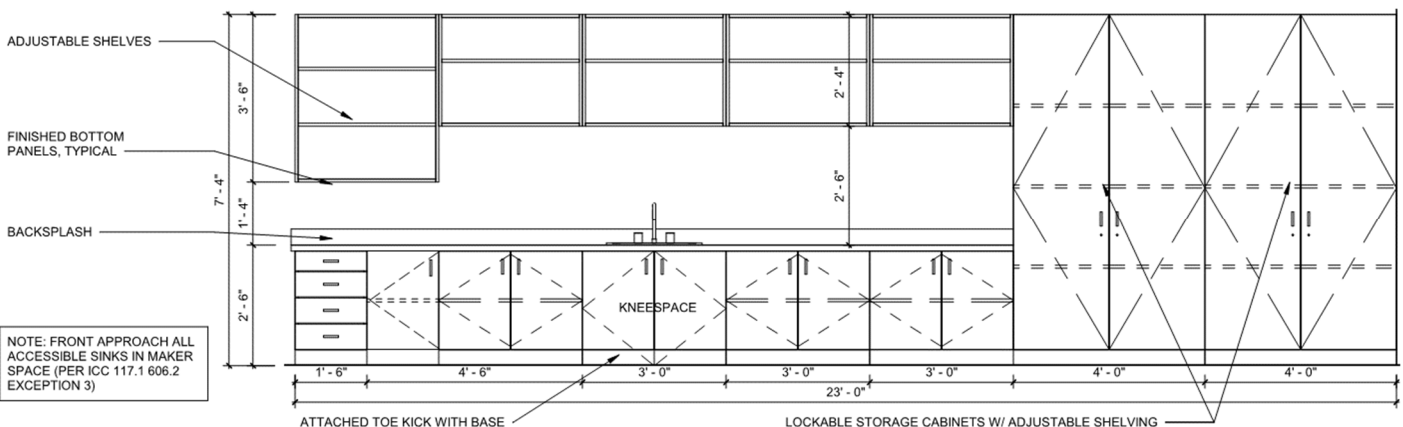
Materials and Supplies by Owner

- | | | |
|----------------------------------|-------------------------------|------------------------------|
| ○ Toolkit and box cutter | ○ Cardboard construction kits | ○ Makey Makey Kit |
| ○ Snap and squishy circuits | ○ Arduino starter kit | ○ Ozobots or Sphero robots |
| ○ K'Nex, Legos, Magformers, etc. | ○ Buddha Board | ○ Wonder Workshop Dash robot |
| ○ Keva planks | ○ 3Doodler 3D pen set | ○ <i>Strawbees</i> |



Makerspace Equipment

Device	Link to Device	Specifications	Image
Makerbot Replicator 3D printer (provisioned by Technology) Needs dedicated laptop or desktop and electrical access	Makerbot Replicator	52.8 L X 44.1 W X 41.0 H CM [20.8 X 17.4 X 16.2 IN]	
Poster Maker (requires electrical outlet and possibly network drop) Provisioned by school	Presentation Systems South Learn on Demand Poster Maker System	Height 38" Width 41" Depth 41"	
Cold Laminator (does not require electrical outlet - hand crank) Provisioned by school	Presentation Systems South Cool Lam	Height 18" Width 28" Depth 28"	
Roll Laminator (requires electrical outlet) Provisioned by school	Laminex lamintor PDF User Guide	Height 15" (381 mm) Width 34" Depth (with feed tray) 20" Net Weight 66 lbs.	
Cricut Maker 3 Machine Needs electrical access	Cricut Shop	26.25 x 11 x 11.2 inches	

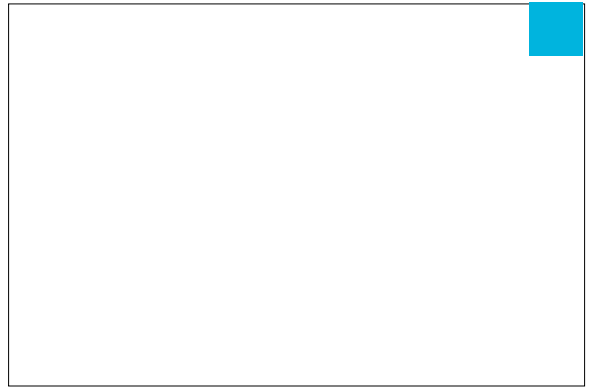


CASEWORK ELEVATION - MAKER SPACE

1/4" = 1'-0"

ADMINISTRATION

PRINCIPAL'S OFFICE



OBJECTIVES

The school administrative offices should provide a space where school-related business and concerns can be addressed with dignity in an attractive and suitable environment.

CAPACITY

2-6 people/guests - executive desk suite of furniture and conference table and chairs with credenza and bookshelves typical.

ACTIVITIES

Principal's Office activities include general planning and coordination of school programs, providing professional development, identifying school and curriculum objectives, evaluating student progress, facilitating organizational efficiency, orienting new staff and students, engaging with the community and managing supplies, equipment and services.

DESIGN CONSIDERATIONS

- Office should be near but not adjacent to the main reception area. Ability to communicate with front office/lobby zone.
- Office should be in close proximity to administration team, student records and guidance area.
- Office should be adjacent to conference room.
- Administration suite should be designed so that the Principal's office can be located on either end of the suite of offices. Two options for locations, adjacent to a conference room is preferable.
- Conference room to be equipped with marker board, tack board and bookshelves, typical.
- Office should have second exit

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide carpet.
- Provide private entrance/exit which will allow principal to leave office without going through the reception area. Provide windows.

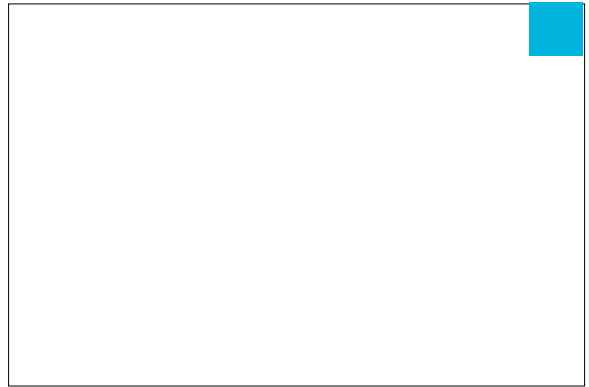
Mechanical Criteria

Electrical Criteria

- Provide two computer outlets, each paired with a quadruplex electrical outlet, located on opposite walls to facilitate alternate furniture arrangements.
- Provide cabling in ceiling for wireless access point.
- Provide duplex outlets elsewhere around the space at approximately 6' on center.
- Provide intercom/phone with volume control and privacy feature.

Furniture, Fixtures and Equipment

ASSISTANT PRINCIPALS' OFFICES



OBJECTIVES

The Assistant Principals' offices should provide a setting where daily school business can be transacted.

CAPACITY

2-6 people/guests Assist. Principal executive desk suite of furniture.

ACTIVITIES

Assistant Principal's Office activities include assisting in general planning and programming, professional development, school and curriculum objectives, student progress, organizational efficiency, orientation, community engagement, and management.

DESIGN CONSIDERATIONS:

Close to principal's office, main reception/entrance, and conference room.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide carpeted floors.
- Provide receiving area separate from the main office reception area.
- Provide access to secondary exit from administration area.

Mechanical Criteria

Electrical Criteria

- Provide two computer outlets, each paired with a duplex electrical outlet, located on opposite walls to facilitate alternate furniture arrangements.
- Provide cabling in ceiling for wireless access point.
- Provide intercom/phone with volume control and privacy feature.

Furniture, Fixtures and Equipment

- Provide window coverings on all glass to obscure vision during "Lockdown" procedures and for light and visual control.

CONFERENCE ROOM

OBJECTIVES

The conference room should be shared by all administration personnel and should provide a quiet inviting setting for conferences and group assemblies for students or school business.

CAPACITY

10-12 people

ACTIVITIES

- Parent conferences.
- Testing evaluations.

DESIGN CONSIDERATIONS

Adjacent to Principal's office, Assistant Principal offices, and reception area. If possible twin locations of office/conference suites are to be provided to offer maximum flexibility to staff. This can be provided by designing two ends of a main administration wing with an office-conference room pairing.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide carpet.
- Provide one 4'x8' markerboard. Top of board to be 6'-8" AFF.
- Provide one 4'x8' tackboard. Top of board to be 6'-8" AFF.

Mechanical Criteria

Electrical Criteria

- Provide television connection with wall mounting structure for flat screen TV
- Provide two computer outlets, each adjacent to a quadruplex electrical outlet.
- Provide cabling in ceiling for wireless access point.
- Provide duplex outlets elsewhere around the space at 6' on center.
- Provide intercom/phone with volume control and privacy feature.

Furniture, Fixtures and Equipment



RECEPTION / SECRETARY'S AREA

OBJECTIVES:

To provide a reception area that is warm, inviting and projects a professional image. The reception area should efficiently accommodate secretarial staff, students, visitors, and parents.

CAPACITY

15-20 people/visitors and 3-4 administrators, with 3-4 work stations behind counter.



ACTIVITIES:

- Monitoring of main entry camera and control of entry door locks.
- Greeting of parents and visitors.
- Control point of administrative suite.
- Registration of students entering or leaving during school hours.
- Broadcast of announcements.
- General secretarial activities and duties.

DESIGN CONSIDERATIONS

- Must have visual control over front entry of school and main corridor. Ideally have visual control over front parking areas.
- Proximity to principal and/or assistant principal.
- Adjacent to health room.
- Access to workroom and storage rooms.

PHYSICAL REQUIREMENTS:

Architectural Criteria

- Provide lobby/waiting area with attractive and comfortable seating arrangement.
- Provide desk height reception counter to divide waiting from secretarial spaces- Camera/front door locking security system to be integrated.
- Provide space for 3-4 work stations behind counter.
- Front door vestibule to provide security with locked doors to direct circulation through main office area.
- Visual access should be provided to front entrance to school and to the area outside the front entrance.
- Provide carpeted floors and/or VCT on the public side of the reception counter.
- Provide visual and audible access to Health room.
- Provide built-in coat closet.
- Provide reception counter with a combination of lockable storage units and open space to house three-drawer file cabinets below.
- Provide built-in display case.
- Provide two 4'x6' tackboards. Top of board to be 6'-8" AFF.

Mechanical Criteria

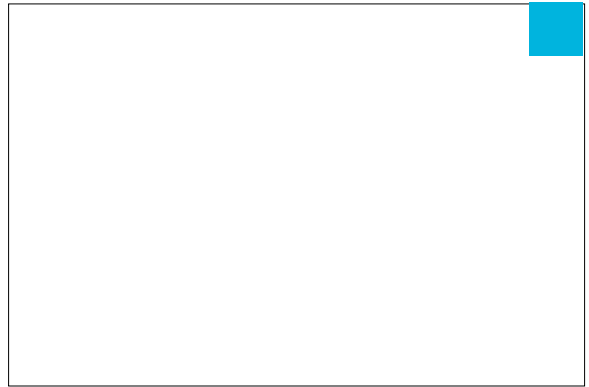
Electrical Criteria

- Provide electric and data for two clerical desks and returns (location is important).
- Provide four computer data outlets.
- Provide cabling in ceiling for wireless access point.
- Provide space for master intercom console and appropriate electric and communications connections.
- Provide space for master telephone and fax console.

- Provide intercom/phone with volume control and privacy feature.
- Provide flat screen TV mounted above head height facing secretarial staff. Provide cable TV connections and proximity to electricity with structural wall blocking for mounting flat screen TV.

Furniture, Fixtures and Equipment

PRINCIPAL'S SECRETARY OFFICE



OBJECTIVES

Office for secretary to the principal.

CAPACITY

1 staff person 2 guests

DESIGN CONSIDERATIONS

Adjacent to or easily accessible to principal's office.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide carpet.
- Provide one 4'x6' tackboard. Top of board to be 6'-8" AFF.

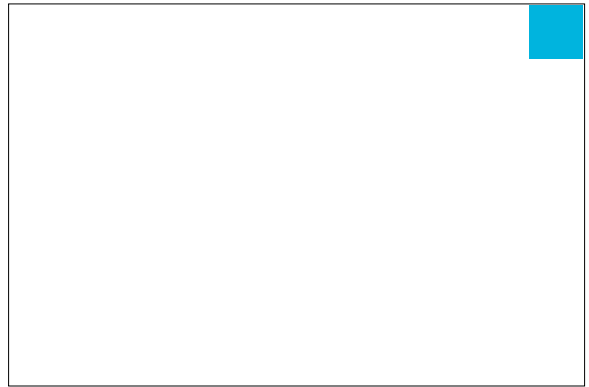
Mechanical Criteria

Electrical Criteria

- Provide two computer outlets, each adjacent to a quad electric outlet.
- Provide duplex outlets elsewhere around the space at 6' on center.
- Provide intercom/phone with volume control and privacy feature.
- Provide TV connection with wall mounting structure for Flat Screen TV.

Furniture, Fixtures and Equipment

FINANCE SECRETARY'S OFFICE



OBJECTIVES

Financial secretary/bookkeeping office should provide a quiet and private setting where school business transactions can be accommodated.

CAPACITY

2-4 people

DESIGN CONSIDERATIONS

Locate in administration office complex but away from high traffic areas.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide carpet.
- Provide one 4'x6' tackboard. Top of board to be 6'-8" AFF.

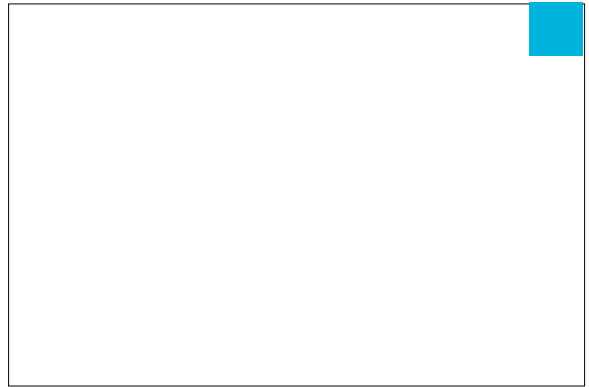
Mechanical Criteria

Electrical Criteria

- Provide two computer outlets, each adjacent to a quadruplex electrical outlet.
- Provide duplex outlets elsewhere around the space at 6' on center.
- Provide intercom/phone with volume control and privacy feature.

Furniture, Fixtures and Equipment

PARENT CENTER



OBJECTIVES

The Parent Center is a place for interaction between parents, teachers and administrators. It is also the location for parent resources and educational information.

CAPACITY

6-8 people

DESIGN CONSIDERATIONS

Parent center should be located close to administration area, main entrance, and staff accessible restrooms. Must be wheelchair accessible.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide carpet.
- Provide three 48"x84" high book shelf units.
- Provide 6' long counter with sink and under counter storage consisting of drawer and closed lockable units.
- Provide one 4'x8' tackboard. Top of board to be 6'-8" AFF.

Mechanical Criteria

Electrical Criteria

- Provide three data outlets, each grouped with a quadruplex receptacle. Provide wireless access point.
- Provide duplex outlets elsewhere around the space at 6' on center.
- Provide intercom/phone with volume control and privacy feature.

Furniture, Fixtures and Equipment

SRO OFFICE

OBJECTIVES

To provide a space for a police officer assigned to the school.

CAPACITY

1 resource officer

DESIGN CONSIDERATIONS

Should be located in the administration area of the school, preferably close to the main or secondary entrance to the administrative area.

PHYSICAL REQUIREMENTS

Architectural Criteria

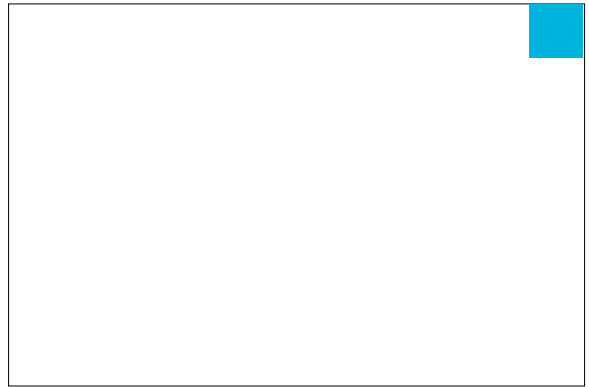
- Provide vinyl tile if accessed from Corridor. Provide carpet if accessed from Admin.
- Provide one 4'x6' tackboard. Top of board to be 6'-8" AFF.

Mechanical Criteria

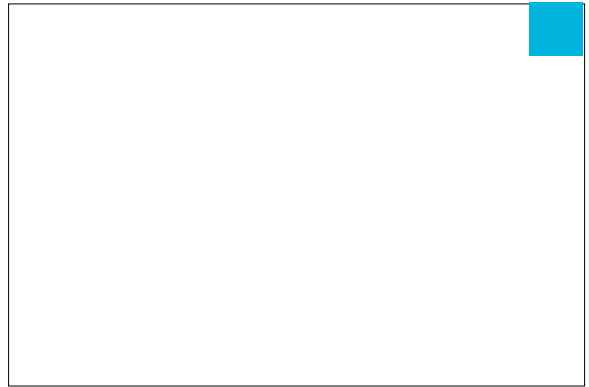
Electrical Criteria

- Provide two computer outlets, each adjacent to a quadruplex electrical outlet.
- Provide duplex electrical outlets elsewhere at 6' on center.
- Provide intercom/phone with volume control and privacy feature.

Furniture, Fixtures and Equipment



HEALTH ROOM



OBJECTIVES

To provide adequate space for school nurse to assess needs of students and staff in a private, confidential area, to triage sick and/or injured students, administer first aid, and monitor status while waiting for parent pick-up; conduct required screenings and evaluations; to provide health counseling, case management and communicate with health care providers; and serve as a center for health and wellness resources, education and activities for staff and students.

CAPACITY

4-6 people

ACTIVITIES

- Student examinations and/or treatment by the school nurse
- Resting area for sick and injured students waiting for parent pick up
- Administration of medication(s) and treatments
- Storage (first aid supplies, medication, linens for beds; wheelchair, scale; health information resources).
- Conduct required screenings and evaluations
- Nurse/student confidential conferences.
- Confidential conversations with parent, staff and/or healthcare providers
- Collaboration with staff on health and wellness activities

DESIGN CONSIDERATIONS

- Locate near the main office, but away from the public entrance behind the secretary/receptionist for supervision on days nurse is not present or occupied outside the health room.
- Provide window for observing students from secretary area, but placed for privacy/confidentiality so visitors entering the reception area cannot see students in the health office
- Ideally have two (2) entrances; one to office area and one to hallway

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide Vinyl composition tile floor or rolled rubber heat welded (no carpet).
- Provide private accessible restroom with warm/cold water and accessible shower (if a shower is not otherwise provided within the school at a modified rest room) with floor drain typical.
- Provide sink (warm and cold water) and counter with lockable drawers and storage.
- Restroom should be sized to allow for a changing area and the use of a small cot.
- Provide hot/cold shower; not a requirement, if modified restroom with shower is available.
- Provide privacy curtain from ceiling to visually separate cots.
- Provide either a door or at least a glass vision panel between the health room and the reception area.
- Provide ADA-compliant mini refrigerator with lock (include in GC contract), positioned within base cabinet.
- Provide wall cabinets with locks for secure storage of medications and equipment
- Provide paper towel and liquid soap dispensers at the sink.
- Provide Casework of:
 - Lockable 36"x84" high storage cabinet with sliding glass doors above and solid doors below.
 - 48" base cabinet with stainless steel sink and mirror above.
- Provide one 4'x8' tackboard. Top of board to be 6'-8" AFF.

Mechanical Criteria

Electrical Criteria

- Provide intercom/phone with volume control and privacy feature.
- Provide two computer outlets, each paired with quadruplex electrical outlet, located on opposite walls to facilitate furniture arrangements and away from door to provide privacy.
- Provide duplex outlets elsewhere at 6' on center.
- Provide wall clock.

Furniture, Fixtures and Equipment

- Provide adult chair on casters
- Provide 2 cots in storage near restroom.
- Provide 4 drawer lockable file cabinet for confidential files.
- Provide nurse's desk with lockable drawers and adult desk chair.
- Provide 4-6 student sized chairs.
- Provide sufficient storage for surplus clothing on shelves with covered containers.
- Provide bookcase.
- Provide biohazard waste garbage container.
- Provide "Sharps" container.

WORKROOM

OBJECTIVES

To provide workspace for teachers, secretaries, principal and assistant principals.

CAPACITY

2-4 people

ACTIVITIES:

- Storage (school supplies and system forms).
- Copying of materials.
- Laminating, assembling and distribution of staff mail
- General clerical tasks.

DESIGN CONSIDERATIONS

Locate in principal's office suite close to secretarial area and on a major corridor.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide vinyl tile floor.
- Provide one wall of built-in base and overhead cabinets. All cabinets to be lockable. Units to be a mix of closed, open shelves, and drawers.
- Provide 12" deep shelving on all available walls of storage room.
- Provide work table per the details included in the A/E Guide Appendix.
- Provide teacher mail slots per the details included in the A/E Guide Appendix.

Mechanical Criteria

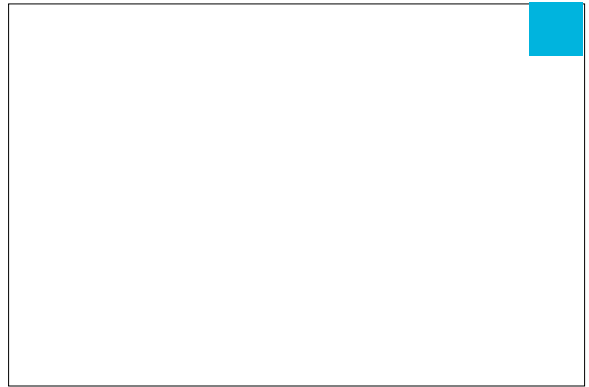
Electrical Criteria

- Provide intercom/phone with volume control and privacy feature.
- Provide two computer outlets in the workroom and one in the storage room, each adjacent to a quadruplex electrical outlet.
- Provide electrical outlets elsewhere at 6' on center.

Furniture, Fixtures and Equipment



RECORD STORAGE AND REGISTRAR'S OFFICE



OBJECTIVES

To provide secure fire resistant area for storage of student records and school financial records.

CAPACITY

1-4 people

ACTIVITIES

- Storage of student files.
- Retrieval of information.
- Logging of information onto computer system.
- Review of information.
- Registration of new students.

DESIGN CONSIDERATIONS

- Locate adjacent to Financial Secretary Office. Locate in proximity to Principal and Assistant Principals.
- Locate in proximity to Guidance area.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide minimum of two-hour enclosure.
- Provide carpet.

Mechanical Criteria

Electrical Criteria

- Provide intercom/phone with volume control and privacy feature.
- Provide two computer outlets, each adjacent to a quadruplex electrical outlet.
- Provide duplex outlets elsewhere around the space at 6' on center.

Furniture, Fixtures and Equipment

STAFF TOILETS

OBJECTIVES

To provide space for toilets facilities for staff.

DESIGN CONSIDERATIONS

Staff toilet rooms should be located evenly throughout the building

PHYSICAL REQUIREMENTS

Architectural Criteria

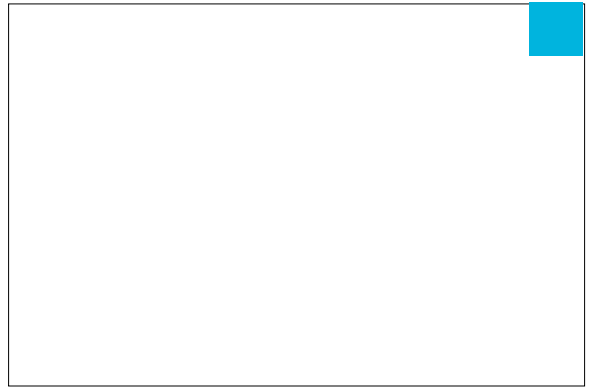
- Provide ADA compliant mirror over ADA sink
- Provide a full height mirror on the wall.
- Provide porcelain tile floor and base
- Provide epoxy paint on the wall
- The preference is for the door to swing out
- Ceiling to be gypsum or scrubbable ceiling panels

Mechanical Criteria

Electrical Criteria

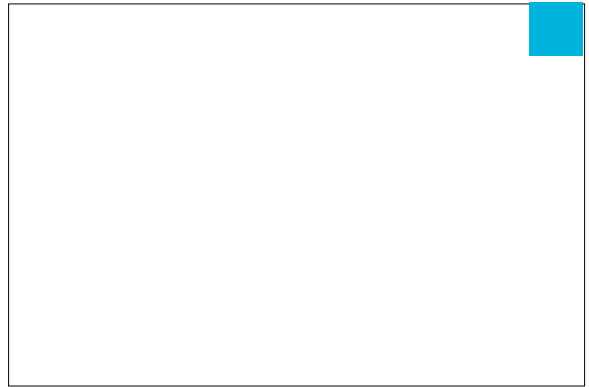
- Provide a GFCI outlet

Furniture, Fixtures and Equipment



STUDENT SERVICES

STUDENT SERVICES



OBJECTIVES

The primary purpose of the Student Services Center is to provide students with the necessary services and experiences to meet their mental/physical health, learning personal/social, assessment, and career exploration/planning needs.

CAPACITY

12-16 People

ACTIVITIES

- The following activities will take place in the individual offices within the Student Services Center:
 - Individual assessment (career inventories, learning styles, achievement testing, etc.).
 - Individual counseling typically around the general topics of building success in the classroom, career exploration and planning (including financial aid and scholarship information).
 - Academic advisement.
 - Crisis counseling either by internal staff or by community agency personnel (Youth Services, Department of Social Services, etc.).
 - Parent conferences.
 - Consultation with other staff members and community agency personnel.
 - Consultation with college/university, business/industry, and military representatives.
 - Hearing and vision examinations.
 - General office work (planning, telephoning, report writing, etc.).
- The following activities will take place in the career center:
 - Students working at networked computer stations running study skills, test preparation, career exploration, college and scholarship search, college application and resume writing software.
 - Video presentations.
 - Research on careers and other relevant topics (college search, part-time job information, etc.).
 - Instruction in the guidance performance standards areas.
 - Guest speaker presentations.
 - Mock interviews using video equipment.
 - Distribution of information (financial aid, college admissions, testing, applications for scholarships and college entrance, substance abuse prevention, community support services).
- The following activities will take place in the reception area:
 - Daily work of the Student Services secretary (greeting the public, answering the telephone, word processing, copying, distributing mail, preparing transcripts, scheduling events, responding to parent/student requests, etc.).
 - Forms completion by visitors (registration, transfer).
 - Waiting.
- The following activities will take place in the conference area:
 - Parent/teacher/student/Student Services personnel conferences
 - Group counseling.
 - Committee meetings.
 - Guest speakers (including college/military recruiters).
 - Video presentations.
 - Staff meetings.
 - Telephone conferences.
- The following activities will take place in the file room/registrar's office:
 - Reading, reviewing, auditing, and filing cumulative records.
 - Telephoning parents regarding missing records (immunization, EC forms, etc).
 - All school registrar functions (data entry on mainframe processing transcripts requests, etc.).

- Transferring records as requested.
- Word processing.

DESIGN CONSIDERATIONS

The Student Services Center should be easily accessible to the students, other staff and to the public. This is the office which initially services parents and students new to our community; therefore, it has a strong PR function and must be wheelchair accessible. Internally, as career planning and study skills cut across all curriculum areas, this is a complex which will be utilized by all faculty members as they team with the Student Services staff to work with students in these two areas.

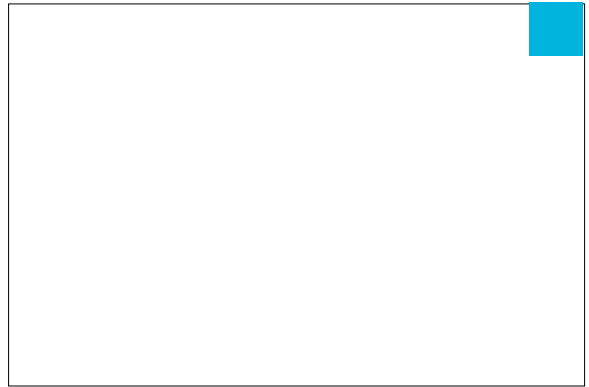
The Student Services Center should be positioned near the administrative area, it is very important for it to have an entrance off the hall separate from the main office area where administrators and the resource officer, among others, are housed.

PHYSICAL REQUIREMENTS

- Provide Offices with:
 - Two computer outlets, each adjacent to a quadruplex electrical outlet. Provide wireless access point.
 - Duplex outlets elsewhere around the space at 6' on center.
 - Intercom/phone with volume control and privacy feature..
 - Carpet.
- Provide File Room with:
 - Two computer outlets, each adjacent to a quadruplex electrical outlet.
 - Duplex outlets elsewhere around the space at 6' on center.
 - Carpet.
 - Space for file cabinets for student records; confirm quantity and size with Owner.
- Provide Conference Room with:
 - Two computer outlets, each adjacent to a quadruplex electrical outlet.
 - Duplex outlets elsewhere around the space at 6' on center.
 - Intercom/phone with volume control and privacy feature.
 - Carpet.
- Provide Reception Area with:
 - Two computer outlets, each adjacent to a quadruplex electrical outlet.
 - Duplex outlets elsewhere around the space at 6' on center.
 - Intercom/phone with volume control and privacy feature.
 - Carpet.
- Provide Career Center with:
 - Multiple TV connections.
 - Six computer outlets, each adjacent to a quadruplex electrical outlet.
 - Main power switch for computers with surge protector.
 - Electrical wiring should be very versatile/flexible (flush-mount floor outlets).
 - Networked computers using G-4000 wire mold.
 - Data appropriately installed according to building specification (new construction).
 - Intercom/phone with volume control and privacy feature.
 - Carpet.
- Provide casework of
 - Storeroom: 12" deep shelving.
- Provide Career Center with:
 - Two 36"x84" high lockable cabinets.
 - Cabinets (4 low; 2 tall).
- Provide Visual Display Boards of:
 - File Room: 4'x4' tackboard and 4'x4' markerboard. Top of board to be 6'-8" AFF.
 - Conference Room: 4'x8' markerboard and (2) cork strips. Top of board to be 6'-8" AFF.
 - Reception Area: In-out board (1).
 - Outside the Reception Area: Shadow box type bulletin board (2) (bulletin board covered with glass and lock).

- Provide window coverings on all glass to obscure vision during “Lockdown” procedures and for light and visual control.

EXCEPTIONAL CHILDREN'S CLASSROOM



OBJECTIVES

The purpose of Exceptional Children programs is to provide a continuum of services to students with disabilities ages 3-21 so that they may achieve to the maximum extent possible in the least restrictive environment appropriate to meet their needs. To that that end, Exceptional Children programming promotes:

- Providing special education services to exceptional children in regular classrooms with non-disabled peers to the maximum extent possible, as appropriate.
- Providing a full continuum of programs and services to help all students achieve to their highest potential.
- Providing related services such as speech therapy and occupational and physical therapy in inclusive learning environments which support the individualized educational program.
- Providing modifications/adaptations to regular education curriculum
- Teaching students using varied learning styles.
- Creating individualized education programs for each identified student.

CAPACITY

1 teacher, 1 assistant, and possibly a physical therapist (The type of EC program will determine the number of students assigned.)

DESIGN CONSIDERATIONS

- Exceptional Children programs should be integrated with the general classrooms.
- Provide Teaching Wall per detail in A/E Guide.

PHYSICAL REQUIREMENTS

Refer to "*Department of Public Instructional Exceptional Children Facilities Planner*" for specific facility design requirements. This document is located in the A&E Guide.

Architectural Criteria

- Locate classrooms on main level, each connected to an adjacent modified restroom, or with modified restroom between two classrooms. If two restrooms provided, prefer to place one restroom with each EC classroom, dispersed into separate areas of building, including second floor.
- Locate classroom near Cafeteria, Media Center, Auditorium.
- Classrooms are to be standard size, 750 square feet. Classrooms are not special in design, and could be used for general population as well.
- Must accommodate students in wheelchairs. Students served could include autism, cerebral palsy, cognitive issued, physical disabilities, muscular dystrophy.
- Provide wireless access point.
- Provide markerboards and tackboards at Teaching Wall per detail in A/E Guide
- Provide vinyl tile floor finish.
- Provide one 4' x 4' tack board in hallway near the classroom door. Top of tack board to be at 6'-8" AFF.

Mechanical Criteria

- Mechanical system needs to be quiet.

Electrical Criteria

- Lighting in classroom will need particular attention to color of light (blue). Consider programmable LEDs for color variation in classrooms.
- Provide cabling in ceiling for classroom camera.
- Provide cabling in ceiling for wireless access point.
- Provide intercom/phone with volume control and privacy feature.
- Provide Teaching Wall per detail in A/E Guide.

MODIFIED RESTROOM

OBJECTIVES

To provide adequate space for toileting and clothes changing area for students needing personal hygiene care under the supervision of a designated adult. The modified restroom is not intended to meet the requirements or fixture counts for ADA accessible restrooms.

CAPACITY

1-3 people

RELATIONSHIPS

- Option 1 (preferred): Located ground level between (2) classrooms and near a main corridor, with corresponding doors to both classroom(s) and to the corridor required.
- Option 2: Located ground level adjacent to (1) classroom, with doors to the classroom and the corridor.
- If two restrooms provided, prefer to place one restroom with each EC classroom, dispersed into separate areas of building, including second floor.

ACTIVITIES

- Toileting, showering, bathing.
- Storage (first aid supplies, linens for beds).
- Teaching life skills.
- Inclusive practices.

PHYSICAL REQUIREMENTS:

Architectural Criteria

- Ceramic tile walls to ceiling, and slip resistant floor tile.
- Wall mounted swing up Grab Bars for toilet, Elementary/K8 30"-32" height, Middle/High 35"-36" height. Length 29 inches at both rails.
- Free rolling toilet paper holder (preferred location on wall mounted swing up grab bars).
- Paper towel and liquid soap dispensers at lavatory.
- Mirror located 1"-2" above sink.
- Soap Dispenser - locate 1"-2" from edge of sink with bottom edge 2" above sink.
- Paper Towel Dispenser – locate opposite soap dispenser 2"-3" from edge of sink with bottom 3"-4" above sink.
- Doors swinging outward to the adjacent classrooms. Door swinging inward from corridor.
- Locks at all doors (thumb turn on bathroom side and key on classroom/hallway side). Accessible lever handles. Locksets to be privacy set with Vacant/Occupied indicator.
- 30"x30" clear floor space to accommodate adaptive toilet seat storage.
- Signage to read "Modified Restroom" (no ADA accessible signage).
- Floor mounted storage cabinet with countertop, shelves and doors, 36" high x 36"-40" wide x 15" deep, with one section lockable for cleaning supplies, and wall cabinet above of matching width, with shelves and doors.
- Space for metal foot-activated trash can, 12 gallon size.
- No curtain required in restroom.

Mechanical Criteria

- Warm/cold water accessible shower w/ hand held shower head.
- Wall mounted sink, tempered/hot water and cold water, standard basin (not elongated) w/ gooseneck faucet with automatic meter for water flow, and 18" clear space both sides, Elementary/K8 29"-31" to rim of sink, Middle/High 34" to rim of sink, 27"-28" to underside of sink basin.



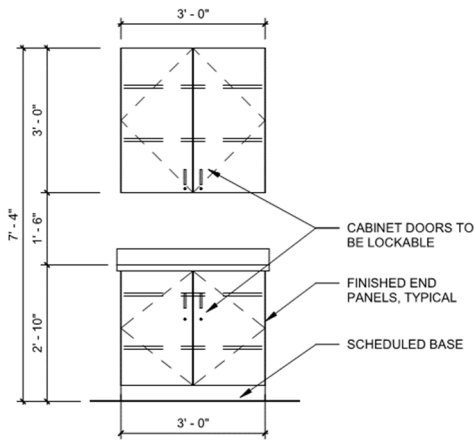
- Scald protection around exposed drainage piping.
- Toilet located center of the wall, Elementary K-1 grades 12"-13" seat height, 2-5 grades 13"-14" seat height, Middle/High 15"-17" seat height.
- Hose bib.
- Adequate ventilation to disperse odors.

Electrical Criteria

- Duplex outlets as required by code.
- Hospital grade electrical outlet 8"-10" AFF and outside the footprint of the changing table to prevent damage to the table and cord during high/low table operation.
- Intercom with volume control and privacy switch located near toilet, and ceiling mounted speaker.

Furniture, Fixtures and Equipment

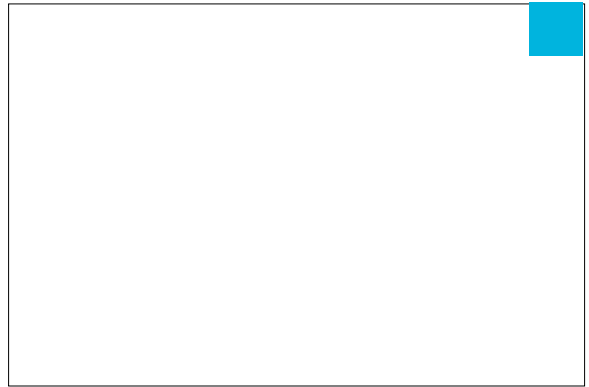
- Space for Hoyer power lift 44"x42", with electric outlet 8"-10" above floor.
- Space for Changing Table (Performa X-Frame Hi-Lo Changing Table) 72"x25" for Middle/High, 60"x25" for Elementary. Adjustable height table.



CASEWORK ELEVATION - MODIFIED RESTROOM

1/4" = 1'-0"

SPEECH PATHOLOGIST/ITINERANT OFFICE



OBJECTIVES

The Speech Pathologist's office should provide a setting for working directly with students to help them overcome hearing and speech challenges.

CAPACITY

1 Speech Pathologist, 1-4 students

ACTIVITIES

Speech Pathologist's activities include working with students who have articulation difficulties, language issues, stuttering challenges, and other issues that impact their ability to communicate, as well as helping students having trouble reading or writing.

DESIGN CONSIDERATIONS:

Close to Exceptional Children's classroom. Could be used to serve any of the students at the school. When not used by speech pathologist, could be used as flex space.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Sized to accommodate desk and small table.
- Provide carpeted floors.

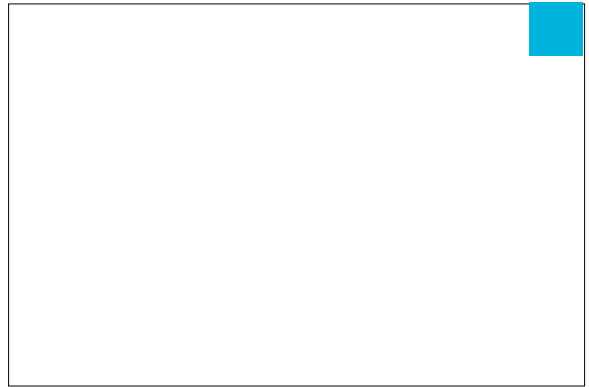
Mechanical Criteria

Electrical Criteria

- Provide two data outlets, each paired with a duplex electrical outlet, located on opposite walls to facilitate alternate furniture arrangements.
- Provide intercom/phone with volume control and privacy feature.

Furniture, Fixtures and Equipment

STUDENT STORE



OBJECTIVES

The student store is a student run area for the sale of assorted items (paper, pencils, etc.).

CAPACITY

2-4 students

DESIGN CONSIDERATIONS

Student store should be located adjacent to student commons area or another high student traffic area.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide roll-up door and countertop.
- Provide work counter along front wall with drawers; knee space, and closed lockable storage below.
- Provide 84" high shelving on other available wall space.

Mechanical Criteria

Electrical Criteria

- Provide intercom/phone with volume control and privacy feature.
- Provide duplex outlets elsewhere around the space at 6' on center.

Furniture, Fixtures and Equipment

STAFF SUPPORT

TEACHER WORK/BREAKROOM

OBJECTIVES

To provide workspace for teachers as well as a comfortable place to relax for a short period of time during and after the school day.

CAPACITY

15-20 adults

DESIGN CONSIDERATIONS

- Storage (school supplies).
- Copying of materials.
- Distribution of staff mail.
- Teacher work space.
- Small kitchen with sink, microwave, refrigerator.
- Small offices for department heads.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide carpet.
- Provide attractive, comfortable surroundings.
- Provide adequate restroom facilities nearby.
- Provide area for vending machines.
- Provide upright residential-size refrigerator (include in GC contract), coordinated with casework.
- Provide 12 linear feet of base cabinet and overhead cabinets with sink. Cabinet units should include drawers.
- Provide one 4'x8' tackboard. Top of board to be 6'-8" AFF.

Mechanical Criteria

- Provide hot and cold water.
- Provide water cooler.

Electrical Criteria

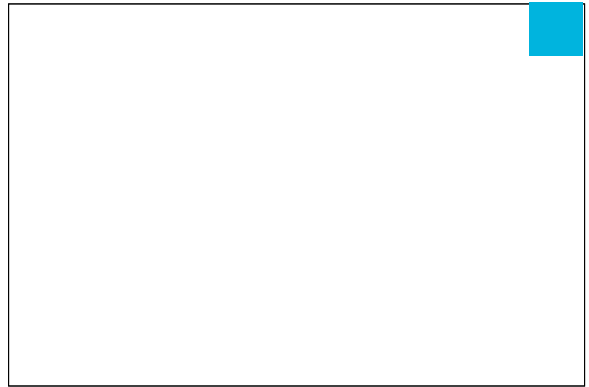
- Provide intercom/phone with volume control and privacy feature.
- Provide six telephone outlets.
- Provide six computer outlets, each adjacent to a quadruplex electrical outlet. Provide wireless access point.
- Provide duplex outlets elsewhere around the space at 6' on center.
- Provide power for refrigerator.

Furniture, Fixtures and Equipment



Rocky River High School, Little Diversified

TEACHER PLANNING ROOM



OBJECTIVES

Professionals need a private area for the preparation of materials, planning and for the storage of supplies. One teacher planning area should be located in each of the following areas: mathematics, communication arts, social studies, foreign language, and science.

CAPACITY

4-12 people

ACTIVITIES:

- Teachers engaged in conferencing, scheduling and planning strategies.
- Individual teacher stations to maximize classroom use.

DESIGN CONSIDERATIONS

- Close proximity to subject areas.
- Proximity to staff restrooms.
- Conference should have direct access from corridor.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide carpet.
- Provide base and wall cabinets along one wall with a sink. Cabinets to be a combination of closed, open shelf and drawer units.
- Provide shelving 18" deep in storage room, floor to ceiling.
- Provide one 4'x8' markerboard. Top of board to be 6'-8" AFF.
- Provide one 4'x8' tackboard. Top of board to be 6'-8" AFF.
- Provide 48"x36" deep flat paper storage unit.

Mechanical Criteria

Electrical Criteria

- Provide four telephone connections in teacher center and conference room. Provide wireless access point.
- Provide intercom/phone with volume control and privacy feature.
- Provide television outlet in teacher center and conference room.
- Provide six computer stations networked in teacher center.
- Provide each data outlet grouped with a quadruplex outlet for each teacher station.
- Provide two data outlets in conference room.
- Provide duplex outlets elsewhere on walls and above countertops at 6' on center.

Furniture, Fixtures and Equipment

WELLNESS ROOM

OBJECTIVES

Employee wellness rooms can help ease stress and tension around the workplace. Per Section 4207 of the Patient Protection and Affordable Care Act, new mothers also need a private, designated space to nurse. This space is intended for staff use only.

CAPACITY

1-2 people

ACTIVITIES:

- Accommodate nursing mothers.
- Provide a private area for administering medication, stress relief, or work breaks.
- Provide an area for employees with migraines to receive sensory relief.

DESIGN CONSIDERATIONS

- The Wellness Room is to be split into three areas; an entry area with casework for storage, sink and small refrigerator, and two separate small private rooms for individual use.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide a design scheme with subtle colors, pale hues like light gray and beige, to make it easier for employees to relax and unwind.
- Provide carpeted floor.
- Provide high-NRC acoustical ceilings.
- Provide entry lock door hardware on private rooms, with occupied/vacant indicators.
- Provide casework in entry area with sink and under-counter refrigerator.
- Provide ADA-compliant mini refrigerator with lock (include in GC contract), positioned within base cabinet.

Mechanical Criteria

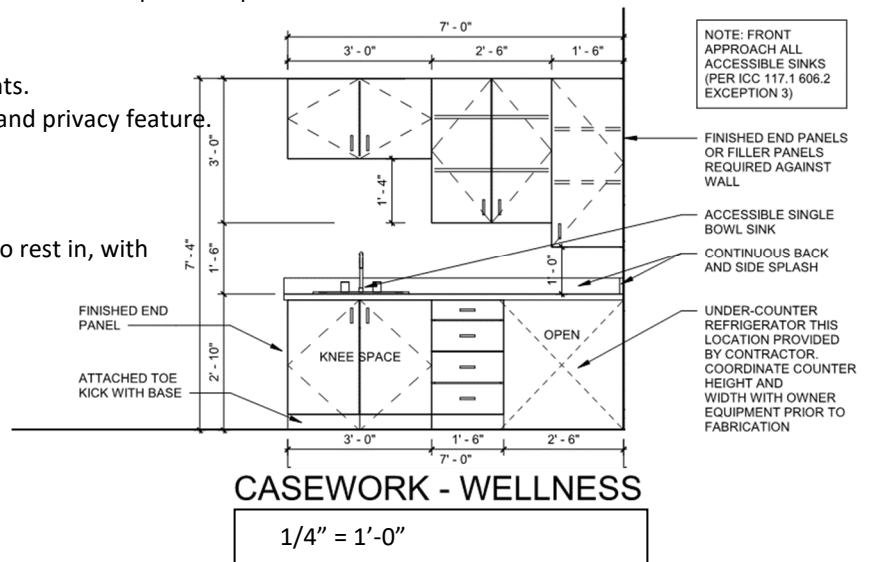
- Provide a small sink in the entry area with hot (tempered) and cold water.
- Provide heating/cooling with individual sensors to control space temperature.

Electrical Criteria

- Provide LED lighting with the ability to dim lights.
- Provide intercom/phone with volume control and privacy feature.
- Provide power for refrigerator.

Furniture, Fixtures and Equipment

- Provide comfortable furniture for employees to rest in, with enough flat surfaces to place their belongings.



PHYSICAL EDUCATION / ATHLETICS

GYMNASIUM/LOCKERS – PHYS. EDUCATION

OBJECTIVES

To provide positive attitudes and behaviors for a lifetime commitment to joyful physical activity and good health. Physical education is a sequential instructional program that provides learning experiences that develop physical and mental fitness, motor skills and moral social behavior. It is based on the study of human movement and includes educational games/sports, dance, and gymnastics with fitness concepts integrated into all of the content areas. A variety of teaching styles is used to develop experiences that encourage students to become efficient, versatile, and creative movers.



Myers Park High School, Boomerang Design

CAPACITY: 4 teachers per period (using Gym, Aux. Gym, Strength Training Room and Health Classroom)
40 students per teacher = 160 students per period
1,500 bleacher seats

ACTIVITIES

- Development of Fitness Center model.
- Development of group fitness, strength training, and fitness based education.
- Four classes of physical education every period.

DESIGN CONSIDERATIONS

- Gym should open onto playing field.
- Gym should have accessible outside access so community groups do not have to enter the school. Provide concessions and accessible public restrooms convenient to entrance.
- Accessible parking should be located near the gym with an accessible route to travel this parking area to gym entrance.
- Accessible restrooms and drinking fountains in the lobby of the gym and near the playing field for community use.
- A custodian's room should be located near the gymnasium area.
- Students should not have to cross parking lots or streets to get to the field.
- State of the art fitness facility – acoustical treatments, gym flooring, sound system in main and auxiliary gym, lighting,
- Strength training and auxiliary gym require a marker board without marker tray.

PHYSICAL REQUIREMENTS

- Provide Physical Education Locker Rooms with:
 - Double tier lockers with hooks inside, 200 total lockers (100 for boys and 100 for girls). Lockers to be heavy duty and ventilated.
 - Benches in locker rooms between each row of lockers attached to the floor with ample space for circulation.
 - Include 6 changing stalls.
 - Restrooms with commodes, sinks, mirrors, full-length shatterproof mirror.
 - Shower room – individual shower stalls for male and female (4 stalls minimum, CMS to verify quantity).
 - Provide accessible shower/dressing stall.
 - Water Fountain with bottle filler at/near each locker room.
 - Well-ventilated rooms, heated and air conditioned.
 - One female and one male P.E. office located adjacent to the locker rooms with private shower.
 - Porcelain tile floors.
 - Impact-resistant drop ceiling tiles with hold-down clips.

- Provide visual display boards of one 4'x8' markerboard with 4'x4' tackboard on each side. Top of board to be 6'-8" AFF.
- Provide Gymnasium with:
 - Bleacher seating quantity per A/E Guide. Separate entrance and egress paths for home and away visitors.
 - Exposed structure – design to NCHAFA
 - Ability to keep spectators, home and away, separate, similar to the stadium.
 - Bleachers to be motor operated, retractable with enclosed risers and accessible seating, safety rails with under-bleacher area securable when in an open position. Provide cross aisle at front of bleachers; review with accessibility requirements. Provide signage to help prevent 'stomping' on bleacher seats.
 - Acoustical treatment of walls and ceiling so that students can hear the teacher's instructions. This is a teaching classroom and there should be no echoing of sound.
 - Good ventilation – air conditioning, fans, and heat system need to be quiet so that instructions can be heard. Duct sox.
 - Recessed lighting (protected lights).
 - Quality intercom and PA systems that can be clearly heard.
 - Control of lights from more than one location.
 - Wood floor – marked with line painting per the details included in the A/E Guide Appendix. Provide logo at center court.
 - Six retractable clear Plexiglas basketball backboards with goals, electrically operated, at main and side courts, with breakaway rims with shatterproof film.
 - Main volleyball net post sleeves per the details included in the A/E Guide Appendix. Practice volleyball courts will use mobile standards.
 - Protected clock, dual electrical outlets on each wall, at least two dual outlets on each wall.
 - Sound system with headset microphone, speakers, ability to play music. Outlets for a microphone at several locations.
 - Translucent windows in gym to prevent glare.
 - Separate air conditioning control for gym.
 - Segregated security system for gym.
 - Two scoreboards with wireless system, located on the end walls behind the main goals, not on the walls behind practice goals. Locate scoreboards so they can be viewed from scorer's table and team seating areas.
 - Play clocks at the ends of the basketball courts.
 - Data connections and wireless access point.
 - Exposed structure - 30'.
- Provide Auxiliary Gym with:
 - Adjacent or close to main Gym, separated by a wall.
 - Two retractable clear Plexiglas basketball backboards with goals, electrically operated, at main and side courts, with breakaway rims with shatterproof film.
 - Acoustical treatment of walls and ceiling so that students can hear the teacher's instructions. This is a teaching classroom and there should be no echoing of sound.
 - Good ventilation – air conditioning, fans, and heat system need to be quiet so that instructions can be heard. Duct sox.
 - Wood floor.
 - Exposed structure - 30'.
 - Wrestling mat hoist system for large mat storage within Aux. Gym.
 - Easy access to move large wrestling mat to main gym or in and out of building, minimizing turns.
 - Markerboards, no tray. Top of board to be 6'-8" AFF.
 - Sound system with headset microphone, speakers, ability to play music. Outlets for a microphone at several locations.
- Provide Storage for:
 - Two storage rooms accessible to the main gymnasium, one for PE use and a separate storage room for athletics.
 - One storage room accessible to the auxiliary gymnasium PE purposes.

- One large storage room for large equipment; should have a ceiling at 15' high in order to store 2 portable volleyball stands upright.
 - Practice wrestling mats made up of multiple sections are to be stored on carts in large storage room.
 - One equipment room should be equipped with shelves 18" deep. Wall hooks are needed for jump ropes.
 - Floor space is needed in the equipment room for ball carriers and cones.
 - Equipment rooms should be ventilated.
 - Provide double doors with no center mullion (active/inactive leafs)
 - Provide a separate chair storage space to accommodate 400-500 chairs. Does not have to be in the gym/aux gym areas.
- Provide Office with:
 - Cable TV connection.
 - Data connection.
 - Ample electrical outlets 6' on center.
 - Provide intercom/phone with volume control and privacy feature.
 - 36"x84" high lockable storage cabinet, FF&E.
 - Provide Coaches' Locker/Shower with:
 - Shower area with sink, mirror, commode, and two shower units in each area.
 - Provide 14 full height lockers in each area.
 - Porcelain tile floor.
 - Provide Training Room with:
 - Two whirlpools (arm and leg bath) with floor drain in between.
 - Markerboards, no tray. Top of board to be 6'-8" AFF.
 - Space for (3) training tables by Owner, with 12" deep, 3'x3' open shelving storage wall cabinets over each training table.
 - Hand-washing sink.
 - 9 lin. feet of base and wall cabinets
 - Ice machine adjacent to base and wall cabinets, with open shelving cabinet above ice machine and floor drain below.
 - Provide Strength Training Room with:
 - Rubber mat flooring.
 - Markerboards, no tray. Top of board to be 6'-8" AFF.
 - Collaborate with PE and Athletics to develop a program to be used at each facility.
 - Provide Concessions Stand adjacent to Gym.
 - Provide Ticket Booth adjacent to Gym, with (2) transaction windows.
 - Laundry Room: Provide two washers and two dryers (heavy duty) in Laundry Room.
 - For Outdoor Areas:
 - See Athletics.

TRAINING ROOM

OBJECTIVES

To provide an area for taping, treatment and rehabilitation needs of student athletes.

PHYSICAL REQUIREMENTS

Floor Plan

- Wet Area
- Taping Area
- Treatment Area
- Rehabilitation Area
- Office
- Storage Area

Wet Area

- Provide large whirlpool with seating and ceiling-mounted privacy curtain
- Provide small extremity whirlpool with seating and ceiling-mounted privacy curtain
- Provide ice machine, 500lbs+
- Provide handwashing sink with hot and cold water supply
- Provide refrigerator
- Provide concrete floor
- Provide floor drains sloped at least 1 degree towards drains
- Provide rack storage for wet coolers
- Provide three-pronged hospital-grade plugs and electrical outlets (green dot), with ground fault interrupters

Taping Area

- Provide 2 taping tables with base and wall cabinet storage, minimum height of 36 inches
- Provide trash cans at each table

Treatment Area

- Provide 3 treatment tables, allow 30 inches between tables
- Provide outlets throughout
- Provide space for electric stimulation machine
- Provide space for ultrasound machine
- Provide space for large hydrocollator (hot pack unit)
- Provide carts or cabinets for therapeutic modalities
- Provide tackboard and markerboard. Top of board to be 6'-8" AFF.

Rehabilitation Area

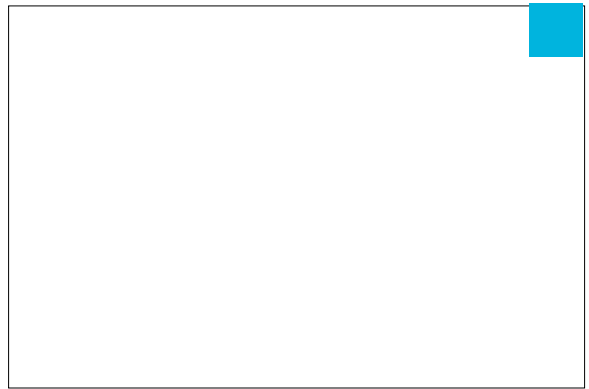
- Provide rack for set of weights (dumbbells or cuff weights)
- Provide storage for Thera Band tubing and foam rollers
- Provide rack for bosu ball
- Provide full-length mirror
- Walls should allow for insertion of hooks and screws (storage of rehab tools)

Office – Lockable, for privacy and record storage

- Provide desk, chair, filing cabinet
- Provide window into Training Room
- Provide telephone line

Storage

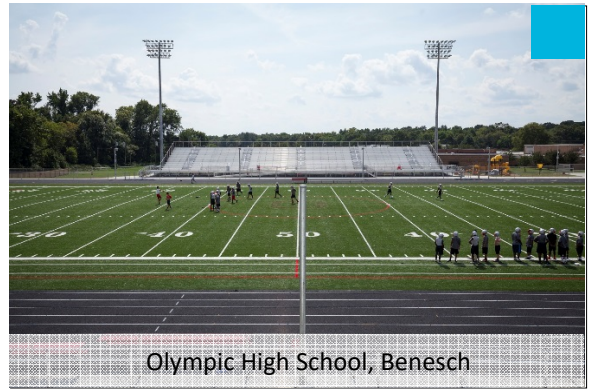
- Provide lockable storage/cabinets



ATHLETICS

OBJECTIVES

High school athletic participation shall be provided in an adequately supervised program, and guided by a philosophy of full participation, consistent with the mission statement of the Charlotte-Mecklenburg Schools. The schools shall provide carefully monitored programs which encourage—students to attain higher GPA’s, to display greater tendencies to remain in school, and to demonstrate heightened self-awareness, and an intensified desire to succeed.



ACTIVITIES:

Men - Fall

Cross Country
Football
Soccer
Field Hockey (Club sport)

Women - Fall

Cheerleading
Cross Country
Golf
Tennis
Volleyball
Field Hockey (Club sport)

Men - Winter

Basketball
Indoor Track
Swimming
Wrestling

Women - Winter

Basketball
Cheerleading
Indoor Track
Swimming

Men - Spring

Baseball
Golf
Tennis
Track
Lacrosse (Club sport)

Women - Spring

Soccer
Softball
Track
Lacrosse (Club sport)

DESIGN CONSIDERATIONS

Athletic areas should be located in a cluster with physical education facilities. A representative of the athletic department should be involved with the layout and positioning of the athletic facilities and fields. All athletic areas must be wheelchair accessible.

Athletic fields should be completed at least twelve (12) months prior to the opening of the school so that the turfs can mature.

PHYSICAL REQUIREMENTS

- Artificial turf field to accommodate football and soccer.
- Football: Provide two high school dimensioned football goal posts with protective pads for competition football field. Provide bleachers per A/E Guide.
- Soccer: Provide four soccer goals with nets and anchors for game field and practice field.
- Baseball, softball and tennis all need lighting.
- Track and Field: Provide track and field equipment: high jump, long jump, shot put, discus, pole vault, triple jump and hurdles. Include two long jumps if space available.
- Baseball: Provide Hollywood bases, foul poles, batting cage (70 ft.), pitching cage with electricity for pitching machine, home plate, pitching mound rubber, and skinned infield per details in A/E Guide Appendix. Provide bleachers per A/E Guide.

- Softball: Provide Hollywood bases, foul poles, batting cage (70 ft.), home plate, pitching rubber, and skinned infield per details in A/E Guide Appendix. Provide bleachers per A/E Guide.
- Baseball and softball batting cages to be on concrete slabs. The school's athletic department can provide the turf mat to go inside and the "L" screen for the pitcher.
- Irrigate practice, baseball and softball fields. Provide full head irrigation on baseball and softball, could be something less on practice fields.
- Tennis: Provide nets and center straps for eight courts.
- Basketball: Provide two backboards with red lights. Provide timers (end zone play clocks).
- Volleyball: Provide two volleyball standards (in floor) with padding and judge's stand.
- Wrestling: Provide two wrestling mats (see description under Gym-P.E).
- Training Room: Provide four trainer's tables, two whirlpools, one ice machine, and one residential refrigerator.
- Laundry Room: Provide two washers and two dryers (heavy duty) in Laundry Room, one of each in Field House
- Weight Room: Provide selected free-weights and exercise machines.
- Provide water and electricity to all athletic fields.
- All spigots at fields should have quick connect capability.
- Place metal stakes in game fields for lining purposes.
- Provide solid walking surfaces and overhead weather protection for entrances to gym.
- Keep at least one field close to gym for physical education use.
- Natural turf fields to be irrigated.

NATATORIUM

NATATORIUM

OBJECTIVES

High school athletic participation shall be provided in an adequately supervised program, and guided by a philosophy of full participation, consistent with the mission statement of the Charlotte-Mecklenburg Schools. The schools shall provide carefully monitored programs which encourage students to attain higher GPA's, to display greater tendencies to remain in school, and to demonstrate heightened self-awareness, and an intensified desire to succeed.



CAPACITY

8 lanes
250 bleacher seats

ACTIVITIES

- Physical education
- Swim Teams
- School and community Learn to Swim
- Recreational swim
- Scuba diving instruction
- Potential lifeguard training

DESIGN CONSIDERATIONS

- Design swimming pool in accordance with NCDHHS Rules Governing Swimming Pools, and Mecklenburg County Health Ordinance Rules Governing Public Swimming Pools.
- Obtain Mecklenburg County Department of Health review, approval, permitting and inspection of pool.
- Design pool drains in compliance with Virginia Graeme Baker Pool and Spa Safety Act and ASME/ANSI A112.19.8-2007

PHYSICAL REQUIREMENTS

- Provide Swimming Pool area with:
 - Broom finish concrete deck and pool basin.
 - Spectator space for at least 250.
 - Diving off blocks for swim races. No competitive diving.
 - Stainless steel railings, ladders, posts and hardware.
 - FRP doors
 - Bleacher seating area (200-400 spectators, separated from swimmers)
 - Timing system and scoreboard infrastructure.
 - Accessible lift arm and ramp
 - Pool and Locker Room entrances secured separate from the rest of the school.
- Provide Locker Rooms with:
 - Access for Pool only, not Gym.
 - Double tier lockers with hooks inside, for boys and girls. Lockers to be heavy duty and ventilated.
 - Benches in locker rooms between each row of lockers attached to the floor with ample space for circulation.
 - Restrooms with toilets, sinks, mirrors, full-length shatterproof mirror.
 - Shower room – individual shower/dressing stalls for male and female.
 - Accessible shower/dressing stalls for the physically challenged.
 - Water Fountain at/near each locker room

- Well-ventilated rooms, heated and air conditioned.
- One female and one male P.E. office located adjacent to the locker rooms and pool area with a window for supervision of the pool.
- Intercom/phone with volume control and privacy feature in offices.
- Porcelain tile floors.
- Equipment Room
- Chemical Storage Room, separate from Equipment Room.
- Storage Rooms.

Architectural Criteria

- X

Mechanical Criteria

- X

Electrical Criteria

- X

Furniture, Fixtures and Equipment

- X

HIGH SCHOOL BUILDING SUPPORT

COMMONS

OBJECTIVES

A place for student gatherings in a central location of the school. Should be large enough to accommodate approximately 1,000 students.

CAPACITY Varies

ACTIVITIES

- Informal student gatherings.
- Waiting for specific events to begin or end.

DESIGN CONSIDERATIONS

Depending on the final floor plan, the commons could be a separate area from the front of the building in proximity to the cafeteria.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide accessible restrooms.

Mechanical Criteria

Electrical Criteria

- Provide intercom.
- Provide electrical outlets for temporary displays, 16' on center.
- Provide wireless access point.

Furniture, Fixtures and Equipment

- Provide trophy cases.



PLANT OPERATIONS

OBJECTIVES

To provide space for the activities involved with plant operations and maintenance on a day-to-day basis.

SPACE REQUIREMENTS:

- Custodian Office
- Janitor/Storage (3)
- Outdoor Storage
- Laundry
- Storage (3)
- Loading Dock
- Recycling Area



DESIGN CONSIDERATIONS

- Janitor rooms should be located at centralized points to provide easy access to all points within the building.
- Outdoor storage should be oriented towards the fields.
- Laundry should be located near one of the janitor rooms.
- Storage rooms should be located to maximize use and access by the entire school.
- Loading dock should be located adjacent to the kitchen and near the custodial office if possible.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Outdoor storage rooms should have over-sized double entry doors with no center mullion.
- Provide Vinyl tile floors.

Mechanical Criteria

- Each janitor room should contain a 24"x24" mop sink with hot and cold water, mop rack, and shelving.

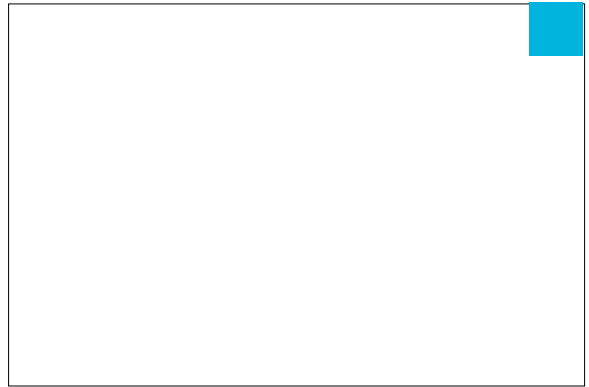
Electrical Criteria

- Each laundry room should be equipped with connections for 240-3p washer connection (15 amps) and 480-3p 32 amp dryer connection.
- Custodians office should be with:
 - Data connection.
 - Intercom/phone with volume control and privacy feature.
 - Ample electrical outlets.

Furniture, Fixtures and Equipment

- Provide Laundry with:
 - Balco Model #25 Dryer, or similar.
 - Balco Model #20 Washer, or similar.

TRANSPORTATION



OBJECTIVES

Transportation is a significant part of the total school program. The design of the school site should allow for a smooth flow of traffic, both vehicular and pedestrian with the primary focus on the safety of all students.

CAPACITY

- Bus Lot (1 per 50 students) 40 buses
- Staff Parking 170 cars
- Visitor Parking 35 cars
- Student Parking 350 cars

DESIGN CONSIDERATIONS

- Whenever parking spaces are provide for self-parking for employees or visitors, or both, then accessible spaces must be provided in accordance with ADAAG requirements.
- The bus parking area should be designated in connection with the unloading and loading zone. It should be independent of other driveways and so designed that backing of the buses can be avoided.
- The bus parking area should be so planned that the movement of buses on the school site will be kept to a minimum.
- The bus parking area should be separate from all other vehicle parking areas.

PHYSICAL REQUIREMENTS

- All parking areas and drives should be paved and provided with curb cuts and ramps for the physically challenged at all appropriate sidewalk intersections and all sidewalks to building entry doors.
- Bus parking should be designed so that backing of buses is not necessary.
- Access and parking not open to public view should be provided for cafeteria deliveries and for other service vehicles.
- All drives should be properly lined with arrows indicating exits and entrances.
- All parking areas should be well illuminated.
- ⊕ The parking area should be of sufficient size to accommodate all buses serving the school.
- The bus parking area should be planned in such a manner that (a) pupils unloading from the bus door will walk away from the bus toward the school entrance, (b) pupils will not cross any driveway on which other vehicles may be moving, and (c) buses arriving on the lot will not cut through the line of pupils walking to the school entrance.
- The bus parking area should be constructed on a maximum 2% sloping lot.
- Lot should be well-drained, prepared, and paved for a vehicle carrying 27,000 pounds.
- Traffic and pedestrian routes must have safe, logical and adequate circulation.
- Lots must have adequate stacking spaces for picking up and dropping off students per NC Department of Transportation criteria.
- Designated spaces and control signs should be provided.
- Sidewalks should be provided in logical paths of travel throughout the campus to accommodate students, staff, and guests with attention given to universal accessibility.
- Driveway turns over which school buses will travel should be laid out so the turning radius of each will adequately accommodate maximum-length wheel base buses.
- Entrance and exit driveways should be located to maximize visibility and with consideration for traffic flow during school hours.

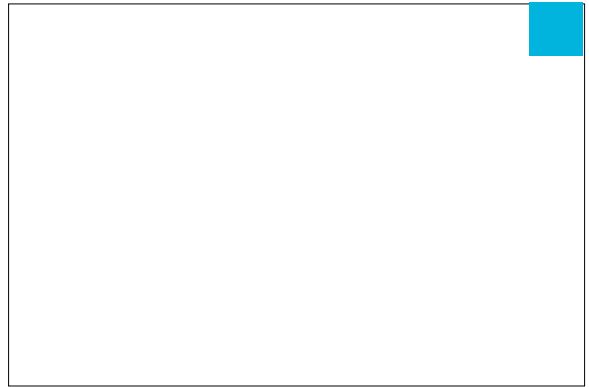
CUSTODIAL ROOMS

OBJECTIVES

To provide space for the storage of supplies and equipment used on a day to day basis.

DESIGN CONSIDERATIONS

- Janitor/storage rooms should be located near opposite ends of the floor plan to provide convenient distances to all classrooms and storage areas as well as trash pick-up and recycling areas.
- Laundry should be located near one of the janitor rooms
- Loading area should be located adjacent to the kitchen-cafeteria area
- Storage room located near loading dock for central receiving and staging



PHYSICAL REQUIREMENTS

Architectural Criteria

- Each janitor/storage room should contain a mop sink, mop rack, and shelving.
- Outdoor storage will be provided by owner, post occupancy and should be added to the site plan for location of circulation and security. Outdoor storage should be oriented towards the play fields. Provide concrete pad and appropriate driveway and sidewalk access and/or ramp to future storage container.
- Provide at least one main custodial room in a central location, large enough to accommodate floor buffing machines.
- Remote custodial rooms shall include a 24" x 24" mop sink with stainless steel backsplash, mop rack, and 24" deep metal shelving.
- One custodial room to have washer/dryer; vent dryer to exterior.
- Spaces to receive sealed concrete floor finish and CMU walls.
- Ceiling to be acoustical tile or open to structure.
- Provide coat hook on back of door.
- Rooms to be lockable.
- Provide additional shelving in each Custodial Room for storage of attic stock materials, per the A/E Guide.

Mechanical Criteria

- Provide hot and cold water, ventilation per code.

Electrical Criteria

- Provide (1) data and quad power receptacles, intercom (handset and speaker), and telephone outlet.

Furniture, Fixtures and Equipment

GROUP RESTROOMS

OBJECTIVES

To provide space for toilet facilities for students.

DESIGN CONSIDERATIONS

Group restrooms should be located evenly throughout the building.

PHYSICAL REQUIREMENTS

Architectural Criteria

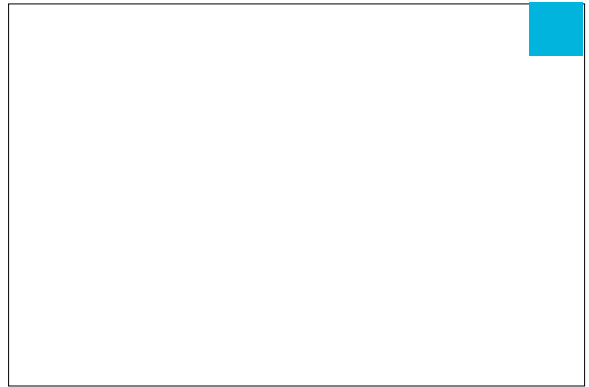
- Design entrances to group restrooms with adequate screening that does not depend on doors. **(A/E Guide 8.3.6)**
- Use different colors of wall tile in male/female group restrooms for wayfinding. **(A/E Guide 9.6.2.6)**
- Provide porcelain tile floor and base. **(A/E Guide 9.6.2.1)**
- Provide moisture resistant gypsum board ceilings with epoxy finish in MS, K-8 and HS group restroom. **(A/E Guide 9.1.6)**
- Provide flat lay-in vinyl faced panel ceilings in ES group restrooms. **(A/E Guide 9.2.3.3)**
- Provide ADA compliant mirror over ADA sink.
- Provide a grab bar at the first urinal.
- Provide 5 feet high tile wainscot in group restrooms on wet and end walls. Provide tile finish on wet walls and below and around the hand dryer to protect wall finish. **(A/E Guide 9.6.2.7)**
- Provide floor drains per A/E Guide. **(A/E Guide 9.6.3.5, 22.1.10, 22.15)**
- Provide toilet partitions which are darker (charcoal gray) to help hide graffiti and vandalism. **(A/E Guide 10.4.4)**
- Provide toilet accessories per A/E Guide. **(A/E Guide 10.5)**

Mechanical Criteria

- Provide touchless faucets at the lavs.

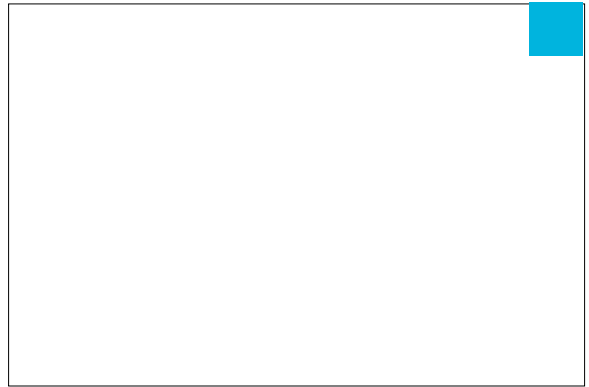
Electrical Criteria

- Group restrooms are preferred without receptacles; locate in the adjacent corridor when possible. **(A/E Guide 26.1.3.9.11)**
- Locate switches for group restrooms in an area not subject to student tampering. **(A/E Guide 26.12.4)**



ATHLETIC OUTBUILDINGS

FIELDHOUSE



OBJECTIVES

To provide a support building for team use at the athletic stadium.

CAPACITY

Home and away teams, coaches and game officials.

ACTIVITIES

- Team locker rooms for changing and showering, restrooms.
- Game officials office for changing and showering.
- Team uniform laundry.
- Office and training room, storage room.
- Storage of Gator vehicle.

DESIGN CONSIDERATIONS

- Locate entrance doors to team locker rooms as far apart as possible to limit interaction.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide 50 athletic lockers, single-tier in each locker room. Provide benches.
- Provide 4 showers in restrooms of each team locker room, 1 accessible.
- Provide Laundry Room with washer, dryer, steel shelving and mop sink.
- Provide Office with 5 single-tier athletic lockers and markerboard.
- Provide Storage Room with steel shelving.
- Provide Training Room with steel shelving and ice machine.
- Provide Officials' Office with accessible shower in restroom.
- Provide exterior drinking fountains.

Mechanical Criteria

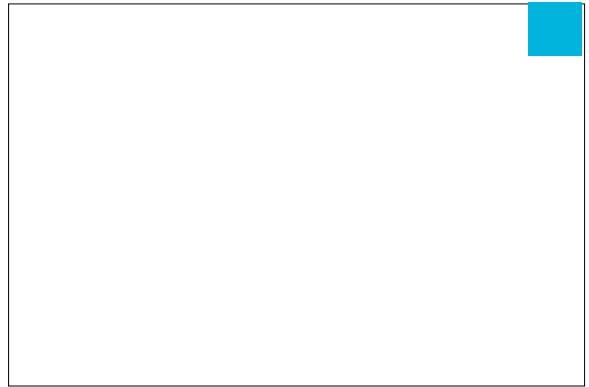
- Provide heating and cooling with gas-fired RTU.

Electrical/Telcom Criteria

- Coordinate electrical requirements of Laundry equipment and Training Room equipment.
- Provide (2) 4" conduit underground pathway to Fieldhouse from Main Telcom Room. Add (3) compartment flex fabric innerduct.
- Provide fiber and copper feeds from Main Telcom Room.
- Each ticket booth and concession building needs (1) 2" conduit to each from Fieldhouse. Pull boxes are required 150' on center. (These requirements might change once CMS Security reviews and gives requirements for pathways for IP cameras.)
- Telcom Room or area:
 - A telcom cabinet will be located in this area. This room needs to be conditioned. This room will feed the outer buildings.
 - Provide 12" ground bus bar at 90".
 - Provide quad dedicated receptacle at 90".
- Training Room:
 - Provide (1) telcom outlet with (1) quadreceptacle adjacent.
 - Provide (2) data cables.
- Office:
 - Provide (1) telcom outlet with adjacent quad receptacle.

- Provide (2) data cables.
- Provide one wireless access point in an accessible ceiling area.

TICKET BOOTH



OBJECTIVES

To provide ticket sales at athletic stadium.

CAPACITY

Three ticket sellers at separate transaction windows.

ACTIVITIES

- Ticket sales.

DESIGN CONSIDERATIONS

- Provide separate ticket booths for home and visitor sides, located next to entrance gates to stadium.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide three separate transaction windows, one to have accessible height counter.
- Provide canopy over transaction windows.

Mechanical Criteria

- Provide heating and cooling with “hotel type” wall unit.

Electrical/Telcom Criteria

- Provide exterior lighting on photocell.
- Provide (1) 2” conduit from Fieldhouse telcom cabinet location.
- Provide (1) data outlet with (1) adjacent quad receptacle.

CONCESSIONS/RESTROOMS

OBJECTIVES

To provide food sales and restrooms at the athletic stadium.

CAPACITY

Restrooms sized for bleacher capacity.

ACTIVITIES

- Food sales.

DESIGN CONSIDERATIONS

- Provide separate concessions/restrooms for home and visitor sides; two on home side and one on visitor side.
- Distance from restroom to farthest bleacher seat should be 500'.
- Concessions restrooms should try to accommodate baseball/softball as well. If possible, try to accommodate tennis also.

PHYSICAL REQUIREMENTS

Architectural Criteria

- Provide two separate concessions windows, one to have accessible height counter.
- Provide canopy over concessions windows.
- Provide storage room.

Mechanical Criteria

- Provide heating and cooling with gas-fired RTU.

Electrical/Telcom Criteria

- Provide exterior lighting on photocell.
- Provide (1) 2" conduit from Fieldhouse telcom cabinet location.
- Provide (1) data outlet above counter with (1) adjacent quad receptacle.

Food Service Equipment Criteria

- Provide ice machine, rolling hot dog grill, popcorn popper, hand sink, refrigerator/freezer, chip rack and insect fan.
- Provide 2-compartment sink with side drain boards in Storage Room.



PRESSBOX

OBJECTIVES

To provide press viewing and athletic staff viewing areas at the athletic stadium.

CAPACITY

Space for 4 school personnel and 6-8 press (10-12 total).

ACTIVITIES

- Press viewing, athletic staff viewing, and filming.

DESIGN CONSIDERATIONS

- Provide one space for all occupants seated together, with dividers, not walls.
- Pressbox to be accessible.
- Provide observation deck on roof.

PHYSICAL REQUIREMENTS

Electrical/Telcom Criteria

- Provide (1) 2" conduit from Fieldhouse telcom cabinet location. Provide (2) data cables.
- Provide (1) data outlet above counter with (1) adjacent quad receptacle.
- Provide outlet at viewing platform.
- Provide PA system headend located in the pressbox, with desk mics for announcements.

