ARKANSAS SCHOOL FACILITY MANUAL
PROGRAM OF REQUIREMENTS (POR)
SUMMARY AND REQUIRED SPACES

Form Printed
4/23/2015

SCHOOL DISTRICT													
SCHOOL NAME					**USER DOCUMENTATION -**								
PROJECT NAME					RUN BY:								
PROJECT NUMBER					DATE:								
1. NUMBER OF STUDENTS Enter maximum projected number of students during next ten years													
Kindergarten		Grade 7			**2. KITCHEN**	School may have warming kitchen or full service kitchen							
Grade 1		Grade 8			Select from menu below YES or NO if school will have warming kitchen								
Grade 2		Grade 9			Warming Kitchen	NO							
Grade 3		Grade 10			Full Service Kitchen	YES							
Grade 4		Grade 11											
Grade 5		Grade 12			**3. MULTI-STORY SCHOOL**								
Grade 6		**TOTAL**	0		Select from menu if school is multi-story	NO - Single Story							
					4. TOTAL SPACE EXISTING CAMPUS	0	Gross Square Feet						
	TOTAL REQUIRED SPACES			0	Square Feet								
	SUPPORT SPACE ALLOWANCE			0	Square Feet								
	TOTAL REQUIRED + SUPPORT SPACE ALLOWANCE			0	Square Feet	TOTAL SPACES (sum)	0	Square Feet					
	10% CONSTRUCTION FACTOR			0.10		NEW SPACES (sum)	0	Square Feet					
	TOTAL REQUIRED/FUNDED SQUARE FOOTAGE			0	Square Feet								

	REQUIRED SPACES	**STANDARD**	**REQUIRED SPACES**		**NEW SPACES**		**EXISTING SPACES (in their final configuration)**		**TOTAL SPACES (NEW + EXISTING)**		**REQUIRED SPACES CHECK**	
	Space	**SF**	**Qty**	**AREA**	**Qty**	**AREA**	**Qty**	**AREA**	**Qty**	**AREA**	**Qty**	**AREA**
	ACADEMIC CORE											
E-AC-3	Kindergarten Classroom	1000	0	0					0	0	0	0
E-AC-4	Kindergarten Restroom	45	0	0					0	0	0	0
E-AC-5a	Elem Classroom Grades 1-3	850	0	0					0	0	0	0
E-AC-5b	Elem Classroom Grades 4-5	850	0	0					0	0	0	0
M-AC-1a	MS Classroom Grade 6	850	0	0					0	0	0	0
M-AC-1b	MS Classroom Grades 7-8	850	0	0					0	0	0	0
M-~~WD-CE~~ 1	~~Workforce Development~~ Career E	1,300	0	0					0	0	0	0
H-AC-1	HS Classroom	850	0	0					0	0	0	0
H-AC-2	Science Clrm/Lab-Gen/Physics	1,440	0	0					0	0	0	0
H-AC-3	Science Clrm/Lab-Chemistry	1,440	0	0					0	0	0	0
H-AC-4	Science Clrm/Lab-Biol/Life Sci	1,440	0	0					0	0	0	0
H-AC-5	Science Prep	300	0	0					0	0	0	0
H-AC-11	Chemical Storage	150	0	0					0	0	0	0
H-AC-12	Multi-Use Room	1,500	0	0					0	0	0	0
H-AC-13	Instructional Multi-Purpose Rm	850	0	0					0	0	0	0
H-AC-8	Project Lab/Classroom	1,100	0	0					0	0	0	0
E-MC-1	Reading Room/Circulation	0	0	0					0	0	0	0
E-MC-4	Computer Lab	900	0	0					0	0	0	0
M/H-MC-1	Reading Room/Circulation	0	0	0					0	0	0	0
M-MC-4	Media Center Computer Lab	900	0	0					0	0	0	0
E-VA-1	Art Room	1200	0	0					0	0	0	0
E-VA-3	Art Material Storage	80	0	0					0	0	0	0
E-AC-10	Fine Arts Instruction Room	1,200	0	0					0	0	0	0
E-AC-11	Fine Arts Instruction Storage	100	0	0					0	0	0	0
M-VA-1	Art Room	1200	0	0					0	0	0	0
H-VA-1	Art Room	1200	0	0					0	0	0	0
M/H-VA-3	Art Material Storage	100	0	0					0	0	0	0
E-MU-1	Music Room	1,200	0	0					0	0	0	0
E-MU-2	Music Storage	100	0	0					0	0	0	0
M-MU-2	Music Storage	100	0	0					0	0	0	0
M/H-MU-1	Instrumental Room	1,400	0	0					0	0	0	0
H-MU-2	Instrument Storage	200	0	0					0	0	0	0
M-MU-8	Vocal Room	1,200	0	0					0	0	0	0
H-MU-8	Vocal Room	1,200	0	0					0	0	0	0
H-MU-9	Vocal Storage	150	0	0					0	0	0	0
E-PE-1	PE Area	2500	0	0					0	0	0	0
M-PE-1	PE Area	4000	0	0					0	0	0	0
H-PE-1	PE Area	6000	0	0					0	0	0	0
H-PE-3	Student Locker Room	400	0	0					0	0	0	0
H-PE-4	Student Restroom/Shower	150	0	0					0	0	0	0
H-~~WD-CE~~	~~Workforce Dev~~ Career Education F	Varies	0	0	0	0	0	0	0	0		0
H-~~WD-CE~~	~~Workforce Dev~~ Career Education F	Varies	0	Varies								
H-~~WD-CE~~	~~Workforce Dev~~ Career Education F	Varies	0	Varies								
	SPECIAL EDUCATION											
E/M/H-SE-1	Self-contained Classroom	850	1	850					0	0	-1	-850
E/M/H-SE-2	Workroom/Conference	150	1	150					0	0	-1	-150
E/M/H-SE-3	Restroom/Shower	100	1	100					0	0	-1	-100
E/M/H-SE-4	Special Education/Resource	450	1	450					0	0	-1	-450
E/M/H-SE-5	Speech Therapy	475	1	475					0	0	-1	-475
E/M/H-SE-7	OT/PT	350	1	350					0	0	-1	-350
E-GT-1	Gifted and Talented	850	0	0					0	0	0	0
	ADMINISTRATIVE SPACES											
E/M/H-AD-3	Principal's Office	150	1	150					0	0	-1	-150
E/M/H-AD-4	Assistant Principal's Office	120	0	0					0	0	0	0
E/M/H-AD-11	Guidance Counselor's Office	120	1	120					0	0	-1	-120
E/M/H-AD-15	Health Center	250	1	250					0	0	-1	-250
E/M/H-AD-20	Health Center Restroom	45	1	45								
	PERFORMING ARTS											
H-PA-1	Auditorium	1500	0	0					0	0	0	0
H-PA-3	Stage Area (includes wings)	600	0	0					0	0	0	0

SUITABILITY ANALYSIS

SUITABILITY ANALYSIS							
BY:	0						
DATE:	1/0/1900						
(CHOOSE CORRECT PROJECT TYPE)							
FOR ADDITION PROJECT	YES						
FOR NEW SCHOOL IN DISTRICT	NO						
SCHOOL DISTRICT				0			
SCHOOL NAME				0			
PROJECT NAME				0			
PROJECT NUMBER				0			
	Existing Size (GROSS SF)			POR Allowance (SF)		Difference	
TOTAL SCHOOL/CAMPUS	0			0		0	
SINGLE-PURPOSE AREAS	2008 or Before	After 2008				2008 or Before	
Physical Education				0		0	
Media Center				0		0	
Student Dining				0		0	
Performing Arts				0		0	
	TOTAL SUITABILITY NEED (GROSS SF)					0	
	FOR STATE FINANCIAL PARTICIPATION						
NOTES				District Inputs			
				From POR Summary Sheet			
				Suitability Analysis Computes			
				State Participation Area or Excess Area in Gross SF			

ARKANSAS SCHOOL FACILITY MANUAL
PROGRAM OF REQUIREMENTS
~~WORKFORCE DEVELOPMENT~~ CAREER EDUCATION Required for 9-12)

SCHOOL DISTRICT	0		9-12 schools must provide a minimum of three
SCHOOL NAME	0		~~workforce development~~ Career Education programs. Each
PROJECT NAME	0		contain at least three course offerings. Allowable
PROJECT NUMBER	0		~~workforce~~ career education total space is shown on Summa

	~~WORKFORCE DEVELOPMENT~~ CAREER EDUC	REQUIRED SIZE	NEW SPACES Qty	NEW SPACES AREA	EXISTING SPACES Qty	EXISTING SPACES AREA	TOTAL SPACES (NEW + EXISTING) Qty	TOTAL SPACES (NEW + EXISTING) AREA
Agribusiness Systems								
~~WD-~~ CE-AG-1	Agribusiness Lab	1,500					0	0
Agricultural Power, Structural, & Technical Sys.								
~~WD-~~CE-AG-2	Ag Mechanics Lab	3,000					0	0
~~WD-~~ CE-AG-3	Outdoor Covered Work Area	800					0	0
Agricultural Science - Animal or Plant Sys.								
~~WD-~~CE-AG-4	Outdoor Animal Science Lab	1,000					0	0
Horticulture / Plant Systems								
~~WD-~~CE-AG-5	Greenhouse	1,800					0	0
~~WD-~~CE-AG-6	Cold Frame	800					0	0
~~WD-~~CE-AG-7	Shade House	300					0	0
~~WD-~~CE-AG-8	Hydroponics Lab	250					0	0
Natural Resources / Environmental Service Sys.								
~~WD-~~CE-AG-9	Aquaculture Lab	500					0	0
Related Spaces								
~~WD-~~CE-AG-10	Classroom	850					0	0
~~WD-~~CE-AG-11	Office	120					0	0
~~WD-~~CE-AG-12	Restrooms/Locker Rooms	150					0	0
~~WD-~~CE-AG-13	Storage	150					0	0
Business Marketing Management								
~~WD-~~CE-BM-1	Management Lab	1,500					0	0
Office Administration								
~~WD-~~CE-BM-2	Office Administration Lab	1,500					0	0
Hospitality								
~~WD-~~CE-BM-3	Hospitality Lab	1,500					0	0
Lodging								
~~WD-~~CE-BM-4	Lodging Lab	1,500					0	0
Desktop Publishing								
~~WD-~~CE-BM-5	Desktop Publishing Lab	1,500					0	0
Multimedia								
~~WD-~~CE-BM-6	Multimedia Lab	1,500					0	0
Programming								
~~WD-~~CE-BM-7	Programming Lab	1,500					0	0
Accounting								
~~WD-~~CE-BM-8	Accounting Lab	1,500					0	0
Banking & Finance								
~~WD-~~CE-BM-9	Banking & Finance Lab	1,500					0	0
Marketing								
~~WD-~~CE-BM-10	Marketing Lab	1,500					0	0
Related Spaces								
~~WD-~~CE-BM-11	Classroom	850					0	0
~~WD-~~CE-BM-12	Office	120					0	0
~~WD-~~CE-BM-13	Storage	100					0	0

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PROJECT NUMBER	0		~~workforce~~ career education total space is shown on Summa

			REQUIRED	NEW SPACES		EXISTING SPACES		TOTAL SPACES (NEW + EXISTING)	
	~~WORKFORCE DEVELOPMENT~~ CAREER EDUC		SIZE	Qty	AREA	Qty	AREA	Qty	AREA
Family & Consumer Sciences									
~~WD~~-CE-FCS-1	Family & Consumer Sciences Lab		1,200					0	0
~~WD~~-CE-FCS-2	Food Prep Lab (kitchen units)		600					0	0
~~WD~~-CE-FCS-3	Sewing Lab		550					0	0
~~WD~~-CE-FCS-4	Fitting Room		150					0	0
~~WD~~-CE-FCS-5	Laundry		50					0	0
Consumer Services									
~~WD~~-CE-FCS-1	Consumer Services Lab		1,500					0	0
Education & Training									
~~WD~~-CE-FCS-6	Education & Training Lab		1,200					0	0
Food Production, Management, & Services									
~~WD~~-CE-FCS-7	Food Production, Management, & Services Lab		1,200					0	0
~~WD~~-CE-FCS-8	Food Prep Lab (kitchen units)		600					0	0
Facilities Management, Maintenance, & Services									
~~WD~~-CE-FCS-9	Facilities Management, Maintenance, & Services		1,200					0	0
Child Care Guidance, Management, & Services									
~~WD~~-CE-FCS-1	Child Care Guidance, Management, & Services La		1,200					0	0
~~WD~~-CE-FCS-1	Laundry		50					0	0
Cosmetology									
~~WD~~-CE-FCS-1	Cosmetology Lab		2,500					0	0
Required Spaces in Cosmetology Lab - included in required SF									
~~WD~~-CE-FCS-2	Restroom		100						
~~WD~~-CE-FCS-2	Reception		250						
~~WD~~-CE-FCS-2	Supply		200						
~~WD~~-CE-FCS-2	Dispensary		150						
~~WD~~-CE-FCS-1	Office		120						
~~WD~~-CE-FCS-1	Cosmetology Clinic Area		1,200					0	0
~~WD~~-CE-FCS-1	Cosmetology Instruction Area		275					0	0
Related Spaces									
~~WD~~-CE-FCS-1	Classroom		850					0	0
~~WD~~-CE-FCS-1	Restrooms		150					0	0
~~WD~~-CE-FCS-1	Storage		100					0	0
Architecture and Construction Services									
Construction Technology									
~~WD~~-CE-ARC-1	Construction Technology Lab		3,000					0	0
HVACR									
~~WD~~-CE-ARC-2	HVACR Lab		3,000					0	0
Related Spaces									
~~WD~~-CE-ARC-3	Classroom		850					0	0
~~WD~~-CE-ARC-4	Office		120					0	0
~~WD~~-CE-ARC-5	Storage		200					0	0
ARTS, AV TECHNOLOGY, & COMMUNICATION SPACES									
Advertising Design									
~~WD~~-CE-AV-1	Advertising Design Lab		1,500					0	0
Career Communications									
~~WD~~-CE-AV-2	Career Communications Lab		1,500					0	0
Commercial Photography									
~~WD~~-CE-AV-3	Photography Production Lab		400					0	0

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PROJECT NUMBER		0		~~workforce~~ career education total space is shown on Summa					
			REQUIRED	NEW SPACES		EXISTING SPACES		TOTAL SPACES (NEW + EXISTING)	
	~~WORKFORCE DEVELOPMENT~~ CAREER EDUC		SIZE	Qty	AREA	Qty	AREA	Qty	AREA
~~WD~~-CE-AV-4	Photography Workroom		750					0	0
Graphic Communications									
~~WD~~-CE-AV-6	Graphic Communication Work Area		1,800					0	0
Performing Arts									
~~WD~~-CE-AV-7	Performing Arts Studio		1,800					0	0
~~WD~~-CE-AV-8	Dressing Rooms		750					0	0
~~WD~~-CE-AV-9	Performing Arts Storage		250					0	0
Radio / TV Broadcasting									
~~WD~~-CE-AV-10	Radio / TV Broadcasting Lab		1,200					0	0
Related Spaces									
~~WD~~-CE-AV-11	Classroom		850					0	0
~~WD~~-CE-AV-12	Office		120					0	0
~~WD~~-CE-AV-13	Storage		200					0	0
Government and Public Education Spaces									
ROTC									
~~WD~~-CE-GOV-1	ROTC Lab		3,000					0	0
Related Spaces									
~~WD~~-CE-GOV-2	Classroom		850					0	0
~~WD~~-CE-GOV-3	Office		120					0	0
~~WD~~-CE-GOV-4	Storage		200					0	0
Health Science Spaces									
Medical Professions Education									
~~WD~~-CE-HSC-1	Clinic Area		500					0	0
Related Spaces									
~~WD~~-CE-HSC-2	Classroom		850					0	0
~~WD~~-CE-HSC-3	Office		120					0	0
~~WD~~-CE-HSC-4	Storage		200					0	0
Law, Public Safety and Security Spaces									
Criminal Justice									
~~WD~~-CE-LAW-1	Criminal Justice Lab (forensics)		1,200					0	0
Related Spaces									
~~WD~~-CE-LAW-2	Classroom		850					0	0
~~WD~~-CE-LAW-3	Office		120					0	0
~~WD~~-CE-LAW-4	Storage		200					0	0
Manufacturing Spaces									
Electronics									
~~WD~~-CE-MAN-1	Electronics Lab		2,000					0	0
Furniture Manufacturing									
~~WD~~-CE-MAN-2	Furniture Manufacturing Lab		3,000					0	0
Industrial Equipment Maintenance									
~~WD~~-CE-MAN-3	Industrial Equipment Lab		3,000					0	0
Machine Tool Technology									
~~WD~~-CE-MAN-4	Machine Tool Lab		3,000					0	0
Major Appliance Repair									
~~WD~~-CE-MAN-5	Major Appliance Repair Lab		3,000					0	0
Welding									

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SCHOOL NAME	0		~~workforce development~~ Career Education programs. Each
PROJECT NAME	0		contain at least three course offerings. Allowable
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	~~WORKFORCE DEVELOPMENT~~ CAREER EDUC	REQUIRED SIZE	NEW SPACES Qty	NEW SPACES AREA	EXISTING SPACES Qty	EXISTING SPACES AREA	TOTAL SPACES (NEW + EXISTING) Qty	TOTAL SPACES (NEW + EXISTING) AREA
~~WD~~-CE-MAN-6	Welding Lab	3,000					0	0
Related Spaces								
~~WD~~-CE-MAN-7	Classroom	850					0	0
~~WD~~-CE-MAN-8	Office	120					0	0
~~WD~~-CE-MAN-9	Storage	200					0	0
SCIENCE, TECHNOLOGY, ENGINEERING, & MATHEMATICS SPACES								
Drafting & Design								
~~WD~~-CE-ENG-1	Drafting & Design Lab	2,000					0	0
Computer Engineering								
~~WD~~-CE-ENG-2	Computer Engineering Lab	1,500					0	0
Geospatial Technology (GIS)								
~~WD~~-CE-ENG-3	Geospatial Technology (GIS) Lab	1,500					0	0
Pre-Engineering								
~~WD~~-CE-ENG-4	Pre-Engineering Lab	1,500					0	0
Related Spaces								
~~WD~~-CE-ENG-5	Classroom	850					0	0
~~WD~~-CE-ENG-6	Office	120					0	0
~~WD~~-CE-ENG-7	Storage	200					0	0
Transportation, Distribution, & Logistics Spaces								
Automotive Collision								
~~WD~~-CE-TDL-1	Automotive Collision Repair Lab	4,000					0	0
Automotive Service Technology								
~~WD~~-CE-TDL-2	Automotive Service Technology Lab	4,000					0	0
Aviation Mechanics								
~~WD~~-CE-TDL-3	Aviation Mechanics Lab	10,000					0	0
~~WD~~-CE-TDL-4	Aviation Technology Lab	1,200					0	0
Diesel Mechanics								
~~WD~~-CE-TDL-5	Diesel Mechanics Lab	4,000					0	0
Power Equipment Technology								
~~WD~~-CE-TDL-6	Power Equipment Technology Lab	3,000					0	0
Related Spaces								
~~WD~~-CE-TDL-7	Classroom	850					0	0
~~WD~~-CE-TDL-8	Office	120					0	0
~~WD~~-CE-TDL-9	Storage	200					0	0
		TOTALS	0	0	0	0	0	0

ARKANSAS SCHOOL FACILITY MANUAL
PROGRAM OF REQUIREMENTS
SCHOOL SUPPORT SPACES (NOT REQUIRED)

SCHOOL DISTRICT		0		
SCHOOL NAME		0		
PROJECT NAME		0		
PROJECT NUMBER		0		
	ONLY ENTER NEW SPACES INCLUDED IN THE PROJECT			
	SUPPORT SPACES (NOT REQUIRED)	**SUGGESTED SF**	**Qty**	**AREA**
	ACADEMIC CORE			
E-AC-6	Teacher Prep Area/Workroom	150		
E-AC-7	Individual Restroom	50		
E-AC-8	Instructional Material Storage	100		
E-AC-9	Instructional Multi-purpose	850		
E-MC-2	Media Specialist Office	100		
E-MC-3	Media Center Workroom/Storage	100		
E-MC-5	A/V Storage	50		
E-MC-6	Conference Room	200		
E-VA-2	Kiln/Ceramic Storage	100		
E-PE-2	P. E. Workroom/Storage	100		
M-AC-2	Project Lab/Classroom	1100		
M-AC-3	Teacher Prep Area/Workroom	200		
M-AC-4	Individual Restroom	50		
M-AC-5	Instructional Material Storage	120		
M-AC-6	Small Group Room	150		
M-AC-7	Instructional Multi-purpose Room	850		
M-MC-2	Media Specialist Office	120		
M-MC-3	Media Center Workroom/Storage	150		
M-MC-5	Media Center A/V Storage	80		
M-MC-6	Media Center Conference Room	150		
M-MC-7	Multimedia Production Room	300		
M-VA-2	Kiln/Ceramic Storage	100		
M-MU-3	Music Office	120		
M-MU-4	Music Library	120		
M-~~WD~~ CE-2	~~Workforce Dev~~ Career Education	1300		
M-~~WD~~ CE-3	~~Workforce Development~~ Career Ed	150		
M-FCS-1	Life Skills Lab	1100		
M-FCS-2	Life Skills Storage	100		
M-PE-2	P.E./Athletic Office	75		
M-PE-3	Staff Shower	75		
M-PE-4	Student Locker Room	350		
M-PE-5	Student Restroom/Shower	150		
M-PE-6	Physical Education Storage	200		
H-AC-6	Teacher Prep Area/Workroom	300		
H-AC-7	Individual Restroom	50		
H-AC-9	Small Group Room	150		
H-AC-10	Instructional Material Storage	150		
H-MC-2	Media Specialist Office	120		
H-MC-3	Workroom/Storage	150		
H-MC-4	A/V Storage	75		
H-MC-5	Conference Room	250		
H-MC-6	Multimedia Production Room	400		

	REQUIRED SPACES									
		STANDARD SIZE								
	Space	Square Feet		Notes						
	ACADEMIC CORE									
E-AC-3	Kindergarten Classroom	1000		Maximum class size 20 students						
E-AC-4	Kindergarten Restroom	45		One per kindergarten classroom						
E-AC-5a	Elem Classroom Grades 1-3	850		Maximum class size 25 students						
E-AC-5b	Elem Classroom Grades 4-5	850		Maximum class size 28 students						
M-AC-1a	MS Classroom Grade 6	850		Maximum class size 28 students.						
M-AC-1b	MS Classroom Grades 7-8	850		Maximum class size 30 students.						
M-~~WD~~-CE-1	Workforce Development	1,300		Two required for 700 or more students.						
H-AC-1	HS Classroom	850		Maximum class size 30 students.						
H-AC-2	Science Clrm/Lab-Gen/Physics	1,440		Minimum one plus one per each 500 students						
H-AC-3	Science Clrm/Lab-Chemistry	1,440		One per each 500 students above 1,000 students.						
H-AC-4	Science Clrm/Lab-Biol/Life Sci	1,440		One minimum to 1000 students. Additional for each 500 above 1000 students.						
H-AC-5	Science Prep	300								
H-AC-11	Chemical Storage	150		One miminum. Two above 1500 students.						
H-AC-12	Multi-Use Room	1,500								
H-AC-13	Instructional Multi-Purpose Rm	850								
H-AC-8	Project Lab/Classroom	1,100		One minimum to 1000 students. Additional for each 500 above 1000 students.						
E-MC-1	Reading Room/Circulation	Computed		10% of the student capacity multiplied by 35 SF per student.						
E-MC-4	Computer Lab	900								
M/H-MC-1	Reading Room/Circulation	Computed		10% of the student capacity multiplied by 40 SF per student.						
M-MC-4	Media Center Computer Lab	900								
E-VA-1	Art Room	1200		Required for 550 or more students.						
E-VA-3	Art Material Storage	80		Required for 550 or more students.						
E-AC-10	Fine Arts Instruction Room	1,200		Substituted for Art and Music Room in ES with less than 550 students						
E-AC-11	Fine Arts Instruction Storage	100		Substituted for Art and Music Storage in ES with less than 550 students						
M-VA-1	Art Room	1200								
H-VA-1	Art Room	1200		Minimum one, plus one for each 500 students						
M/H-VA-3	Art Material Storage	100								
E-MU-1	Music Room	1,200		Required for 550 or more students.						
E-MU-2	Music Storage	100		Required for 550 or more students.						
M-MU-2	Music Storage	100		Required for 550 or more students.						
M/H-MU-1	Instrumental Room	1,400		Minimum one plus additional room for more than 1000 students.						
H-MU-2	Instrument Storage	Computed		Minimum 200 SF. One-half SF per student.						
M-MU-8	Vocal Room	1,200		Required for 700 or more students						
H-MU-8	Vocal Room	1,200		Minimum one for 500 students plus additional room for more than 2000 students.						
H-MU-9	Vocal Storage	150		One per vocal room.						
E-PE-1	PE Area	Computed		10 SF per student. Minimum 2,500 SF, Maximum 10,000 SF. Minimum single space size 900 SF.						
M-PE-1	PE Area	Computed		15 SF per student. Minimum 4,000 SF, Maximum 10,000 SF. Minimum single space size 900 SF.						
H-PE-1	PE Area	Computed		15 SF per student. Min 6,000 SF, Max 30,000 SF. Includes aux gym above 1000 students. Minimum 900 S						
H-PE-3	Student Locker Room	Computed		Minimum 2 @ 400 SF. Maximum 6 @ 850 SF.						
H-PE-4	Student Restroom/Shower	Computed		Minimum 2 @ 150 SF. Maximum 6 @ 350 SF.						
H-~~WD~~-CE	~~Workforce Dev~~ Career Educati	Varies		Total. Minimum 8,000 SF. Maximum 23,000 SF. 15 SF/student.						
H-~~WD~~-CE	~~Workforce Dev~~ Career Educati	Varies								
H-~~WD~~-CE	~~Workforce Dev~~ Career Educati	Varies								
	SPECIAL EDUCATION									
E/M/H-SE-1	Self-contained Classroom	850		Two required for 1,000 students and above.						
E/M/H-SE-2	Workroom/Conference	150		Two required for 1,000 students and above.						
E/M/H-SE-3	Restroom/Shower	100		Two required for 1,000 students and above.						
E/M/H-SE-4	Special Education/Resource	450		Two required for 1,000 students and above.						
E/M/H-SE-5	Speech Therapy	475		Two required for 1,000 students and above.						
E/M/H-SE-7	OT/PT	350		Two required for 1,000 students and above.						
E-GT-1	Gifted and Talented	850								
	ADMINISTRATIVE SPACES									
E/M/H-AD-3	Principal's Office	150								
E/M/H-AD-4	Assistant Principal's Office	120		Required for 500 or more students.						
E/M/H-AD-11	Guidance Counselor's Office	120		Minimum 1. Must maintain ratio of 1:450						
E/M/H-AD-15	Health Center	250								
	PERFORMING ARTS									
H-PA-1	Auditorium	Computed		Minimum 1500 SF. 5 SF per 9-12 student.						
H-PA-3	Stage Area (includes wings)	Computed		Minimum 600 SF. 2 SF per 9-12 student.						
	STUDENT DINING									
E/M/H-SD-1	Student Dining	Computed		One-half of the student capacity multiplied by 15 SF per student.						
	FOOD SERVICE			Only one of the two kitchens is to be used - either E-FS-1 or E-FS-2 - not both.						
E/M/H-FS-1	Warming Kitchen	Computed		2 SF per student.						
E/M/H-FS-2	Kitchen (total)	Computed		Equal to sum of areas for preparation, serving, dry food storage, cooler/freezer, and ware washing.						
E/M/H-FS-2a	Preparation Area	Computed		Student capacity multiplied by 3.5 SF per student multiplied by 36%.						
E/M/H-FS-2b	Serving Area	Computed		Student capacity multiplied by 3.5 SF per student multiplied by 34%.						
E/M/H-FS-2c	Dry Food Storage	Computed		Student capacity multiplied by 3.5 SF per student multiplied by 11%.						
E/M/H-FS-2d	Cooler/Freezer	Computed		Student capacity multiplied by 3.5 SF per student multiplied by 10%.						
E/M/H-FS-2e	Ware Washing	Computed		Student capacity multiplied by 3.5 SF per student multiplied by 9%.						
	BUILDING SERVICES									
E/M/H-CU-1	Workroom	Computed		0.5 SF per student. Minimum 125 SF.						
E/M/H-MultiSt	Vertical Circulation	Computed		Vertical Circulation for Multi-Story Schools						
E/M/H-BS-1	Large Group Restrooms	Computed		Equal to the sum of the program areas, excluding building services, multiplied by 3%.						
E/M/H-BS-2	Custodial Closet	50								
E/M/H-BS-3	Electrical Closet	50								
E/M/H-BS-4	Telecommunications Room	64								
E/M/H-BS-5	Corridors/Circulation	Computed		Equal to the sum of the program areas, excluding building services, multiplied by 20%.						
E/M/H-BS-6	Mech/Elect Space/Decks	Computed		Equal to the sum of the program areas, excluding building services, multiplied by 5.5%.						
E/M/H-BS-7	Storage Area	150								
E/M/H-BS-8	Central Storage Area	150								
E/M/H-BS-9	Loading/Receiving Area	100								
E/M/H-BS-10	Main Cross-connect	150								

Civil Sitework

Components

- Building placement
- Ingress, Egress Routing
- Sidewalk
- Trash Enclosure
- Curbing
- Signage and Striping
- Pavement
- Subgrade, Building Pad
- Grading and Drainage
- Water, Sewer, other Utilities

General Standards

1. This section establishes the minimum design and construction requirements for civil sitework for new construction and expansions of school facilities.
2. All drawings including surveys and civil plans shall be prepared in AutoCAD DWG or .pdf format.
3. Site design shall be performed under the supervision of a Registered Civil Engineer and all civil related plans, reports and construction documents shall be signed and sealed in accordance with state statutes.
4. All site design shall conform to the applicable codes and to Federal, State, and local requirements of the Authorities Having Jurisdiction (AHJ).
5. A subsurface geotechnical analysis shall be performed by a Registered Geotechnical Engineer to determine soil properties and provide recommendations for design of footings, foundations, pavements and construction techniques.
6. The following publications (latest edition) shall be consulted by the design professional and are hereby included for reference:
   - Americans with Disabilities Act (ADA)
   - American Association of State Highway and Transportation Officials (AASHTO) Design Greenbook
   - Institute of Transportation Engineers (ITE Manual)
   - Manual on Uniform Traffic Control Devices (MUTCD)
   - Arkansas Highway and Transportation Department (AHTD) Materials Specifications

Site Design Standards

1. Site planning and building placement - The placement of the building shall be closely coordinated with the architect to make good use of the property and ancillary facilities. The various modes of travel (pedestrian, bicycle, cars, buses, delivery vehicles) shall be separated as much as possible to provide safe and efficient access. Special attention shall be given to ingress and egress of pedestrians, passenger vehicles, and buses, and short

term and long term parking locations for each. Pedestrian and vehicular conflicts shall be minimized, as much as possible. Consideration shall also be given for proper drainage of the site during site planning design.

2. Parking - Parking stalls for cars shall be designed at 30°, 45° or 90° angle to the traffic flow direction and shall be a minimum of 9' by 18' in size or per the authorities having jurisdiction (AHJ) requirements, whichever is greater. See Chapter 4 of this manual for number of spaces required for each type of school. All accessible parking shall be designed per the latest edition of the Americans with Disabilities Act (ADA) Federal Guidelines and/or the local codes, whichever is more stringent. Drive aisles between car parking shall be a minimum of 24' for two-way traffic and a minimum of 16' for one-way traffic. Bus parking is recommended at 30° angle to traffic flow direction and oriented so the bus exit door allows students to exit in front of adjacent buses. Bus spaces shall be a minimum of 12' by 40'. Buses should not be required to back up. Drive aisles for buses are recommended to be a minimum of 20'. A parking summary shall be included on the site plan.
3. Sidewalks - Sidewalks shall be designed for access from the parking areas to all entry doors, as well as an accessible path from the street frontage, per ADA guidelines. Sidewalks shall be a minimum of 5' in width and shall be constructed of a minimum of 4" thick Portland cement concrete and minimum strength of 2500 psi.
4. Trash Enclosure - Trash enclosure shall be provided in a location accessible to trash trucks without conflicting with pedestrian routes or bus pick-up/drop-off point. The size of the enclosure may vary by size and number of dumpsters available from the provider. Where practical, recycling may also be staged in the trash enclosure area. The standard enclosure shall have three sides constructed of durable wood, synthetic, or masonry to a minimum height of 6' and capable of screening the dumpster(s) from view. The enclosure will ~~require a pair of gates~~be gated on the "open" side to screen the dumpster interior and provide access. The enclosure shall be positioned so that the "open" side faces a drive entrance with a minimum of 35' direct approach to the enclosure. The trash enclosure shall be constructed on an 8" concrete slab and slab shall extend at least 15' in front of dumpster for the entire opening.
5. Curbing -Curbing shall be provided around the entire pavement perimeter and at all pavement edges. All curbing shall be defined on the site work drawings as to type of curb, size and general location. All permanent curbing shall be concrete. Extruded concrete curbing epoxied to the pavement surface is not permitted. Asphalt curbing shall only be allowed along pavement edges when it is adjacent to a future development area.
6. Traffic Signage and Striping- Traffic signage shall conform to the Manual on Uniform Traffic Control Devices (MUTCD), and at a minimum shall include stop signs where traffic leaves the school property and/or enters a public

Pick-up/drop-off area Sidewalks
Consideration for wider sidewalks in pick-up/drop-off areas and areas leading to main entries are recommended.

Bollards at Trash Enclosure
Bollards are recommended at each corner of the enclosure, where exposed to traffic.

Curbing
Special care should be taken to ensure that all curb radii at entrances, around islands and around curves are sufficiently large enough to accommodate bus turning movements.

Foundations and Floor Slabs at Grade

Components

- Spread footings and wall footings
- Trenched footings/turned down footings
- Drilled piers
- Reinforced concrete foundation walls
- Reinforced concrete masonry walls utilizing normal weight masonry units with all cores grouted and reinforced
- Concrete grade beams
- Driven piles and pile caps
- Auger cast piles and pile caps
- Other systems if recommended and acceptable to the geotechnical engineer and the structural engineer
- Where expansive clays are present on the site, the geotechnical investigation is to address such and special foundation and floor slab systems and/or undercutting and backfilling shall be utilized as recommended by the geotechnical engineering investigation.

Standards

1. Foundations shall be designed by a structural engineer to meet the recommendations given by a geotechnical engineer based upon his geotechnical investigation and report and in accordance with the current state building code.
2. Structurally sound
3. Deflections and differential movement to be limited to magnitudes compatible with other building components
4. Compatible with soil type
5. Water Barrier
6. Long life expectancy
7. Do not use calcium chloride in concrete.
8. Sub-slab ventilation in areas with radon or potential soil gas submissions. Requirement for such is to be determined by qualified testing agency.
9. Concrete minimum compressive strength at 28 days to be as required by structural engineer's design, but shall be no less than the following:
   - Foundations - 3,000 psi
   - Floor slabs - 3,000 psi
   - Precast systems - 5,000 psi Strength of concrete provided is to be tested by independent testing lab, during construction
10. Concrete reinforcing steel shall be a minimum grade 60 and meet the requirements of the current state building code and structural engineer's design.
11. Project site concrete mixing shall not be used, unless otherwise approved by an independent testing agency.

Fly-Ash
Concrete materials may use 10%-20% fly-ash as replacement, but not addition. Mix design to be done by qualified independent testing agency.

Form Release
Use low- and non-toxic form releases.

Pre-Cast Concrete - Insulated Sandwich

Components

- Exterior architectural concrete with smooth or exposed aggregate texture finish or thin brick facing
- Rigid cavity insulation
- Structural concrete backup
- Interior finish, if exposed to be smooth concrete or exposed aggregate concrete or a surface applied smooth or textured finish

Standards - ~~Pre-Case~~ Pre-Cast Concrete - Insulated Sandwich Walls

1. Impact, moisture, and thermal resistant
2. Low maintenance
3. Meet ASHRAE 90.1-2007 (or later) and current state energy code requirements.
4. Use extruded polystyrene or polyisocyanurate insulation.
5. Use fiber composite or plastic connectors - no metal connectors.
6. Concrete materials: Portland cement ASTM C-180, Type I or III~~; Fly ash, ASTM C-618, Class C or F may be substituted for up to 20% of total cementitious materials~~
7. Concrete mix: 28 day compressive strength, 5,000 psi minimum
8. ~~Interior surface: paint or skim-coat plaster~~
9. Minimum R-value is R-13.5

Guidelines - Pre-Cast Concrete - Insulated Sandwich Walls:

- Fly ash, ASTM C-618, Class C or F, may be substituted for up to 20% of total cementitious materials.

Metal Roof with Blanket Insulation

Components

- Standing seam metal roof panels, minimum 26 gauge
  - Profile: vertical, rib, seamed joint
  - Material: aluminum zinc alloy coated steel sheet
  - Exterior finish: fluoropolymer two-coat finish system, 70% PDFY resin
  - ~~Snow guards: seam-mounted, stop or bare type (surface mounted is not acceptable)~~
- Insulation: glass fiber blanket (Minimum R-value R-19) with vapor tight edge tabs and ~~facer~~ faced on under side ~~(Minimum R-Value R-19)~~
- ~~Galvanized~~ Factory primed or galvanized steel purlins
- ~~Solid substrate with ice/water shield moisture barrier recommended.~~
- Structural support:
  - Steel joist or truss joists
  - Pre-engineered structural framing system
- Sheet metal drip edge and flashing
- Snow guards

Performance Standards - Metal Roof with Blanket Insulation

1. Roofing and flashings shall
   - remain watertight
   - not permit the passage of water
   - resist uplift pressure calculated according to current version(s) of applicable code(s)
   - resist thermally induced movement
   - not fail when exposed to weather

~~Moisture resistant~~
~~Thermal resistant~~

2. System shall meet Class 4 per UL 2218 impact test
3. System shall meet UL Class "A" for fire resistance
4. System shall have ASTM E1592-94 wind uplift classification
5. No water penetration when tested according to ~~ASTE~~ ASTM E1646
6. Air leakage through assembly of not more than 0.06 CFM/sq. ft. of roof area when tested to ASTM E1680
7. "ENERGY STAR" compliant surface treatments
8. Special warranty on panel finishes by manufacturer: 20 years
9. Special weather tightness warranty by manufacturer for standing seam metal roof panels: 20 years
10. Contractor furnish 2 year guarantee on materials and workmanship for all system components and accessories (in accordance with terms and conditions of required manufacturer's ~~20 year weathertightness warranty~~ warranties)

Component - Ice / water shield
- Ice / water shield moisture barrier recommended
- Install over required solid substrate component

~~Guideline - Metal Roof with Blanket Insulation~~
- ~~"ENERGY STAR" compliant roof surface recommended~~

Construction Standards - Metal Roof with Blanket Insulation

1. Minimum 1:12 slope
2. ~~Thermal spacers~~Provide break where panels attach directly to purlins
3. Standing seam assembly: factory formed, cap seam assembly designed for concealed mechanical attachment of panels to roof purlins or deck

~~4. Air leakage through assembly of not more than 0.06 CFM/sq. ft. of roof area when tested to ASTM E 1680.~~

~~5. No water penetration when tested according to ASTM E 1646.~~

~~6. Roof panels shall be 26 gauge minimum.~~

4. Provide pre-roofing conference prior to field installation of roofing system to comply with the manufacturer's requirements. Provide post installation inspection ~~required~~ to comply ~~per~~ with manufacturer's ~~recommendations~~ requirements.
5. ~~Snow guards shainbeinstalled~~

Interior Floor Finishes

Performance Standards - Interior Floor Finishes

1. Water-based coatings and adhesives
2. Nontoxic and non-polluting materials (low VOC)
3. Resistant to moisture or inhibits the growth of biological contaminants
4. ~~Easy to clean~~ Can be cleaned with non-polluting maintenance products
5. ~~Durable to withstand~~ Suitable for heavy use ~~without requiring frequent replacement~~ areas
6. ~~Easy to maintain~~
7. Prior to finish flooring installation, ~~P~~provide moisture testing of concrete floors to meet finish flooring manufacturer's requirements

Examples - Interior Floor Finishes

- Soft Surface Flooring
  - Vinyl composition tile (VCT and vinyl enhanced tile (VET)
  - Carpeting and carpet tiles
  - Rubber flooring
- Hard Surface Flooring
  - Porcelain ceramic tile (CT) with recycled content
  - Quarry tile (QT)
  - Terrazzo tile with recycled content
  - Concrete finish
  - Wood (athletic)
  - Resinous epoxy
  - Hardwood

Guidelines - Interior Floor Finishes

- Maximize ~~R~~recycled/recyclable content
- Minimize PVC content

Acoustical Ceilings and Panels

Examples - Acoustical Ceilings and Panels

- Suspended acoustic ceiling systems or acoustical panels
- Sprayed-on acoustical treatment
- Acoustical wall treatment
- Abuse resistant acoustical panels
- Metal Ceiling Panels
- Wood Ceilings

Construction Standards - Acoustical Ceilings and Panels

1. Ceiling suspension system: Conform to ASTM C 635; main and cross runners roll-formed from cold-rolled steel sheet, pre-painted; Hot-dip galvanized per ASTM A 653, G30 coating
2. Ceiling panels shall meet ASTM C 1264 for Class A materials
3. Acoustic ceiling panels shall have a minimum Noise Reduction Coefficient (NRC) ~~0.65~~ 0.55 and Ceiling Attenuation Class (CAC) 35 rating
4. Spray-on acoustical treatment: minimum NRC ~~values~~ of 0.65 per ASTM C423, and a maximum flame spread rating of 15, and smoke developed of 0 per ASTM E84;thickness as necessary to accomplish design R-value and STC values
5. Acoustical wall treatment: rigid glass-fiber board and fine-grain cork core faced with fabric
6. Abuse-resistant acoustical panels: flame spread rating less than 25; wood fibers and hydraulic cement binder composition
7. Specify low formaldehyde acoustical ceiling panels

Performance Benefits - Acoustical Ceilings and Panels

- Good sound absorption qualities
- Low cost ceiling application

Performance Guidelines - Acoustical Ceilings and Panels

- ~~Good sound absorption qualities~~
- Consider ceiling tiles that contain a minimum recycled content of 20%
- ~~Low cost ceiling application~~
- ~~Ceiling panels should have a minimum rating NRC 0.65 and CAC 35~~
- Ceiling panels ~~shall meet ASTM C 1264 for Class A materials;~~ anti-microbial treatment is optional

Independent, separate raceway, wiring, and transfer switches shall be provided for emergency life safety systems and non-emergency life safety systems.

13. ~~Consideration to r~~Run all branch circuit and feeder conduits within buildings above ceilings and within walls ~~shall be taken~~ unless stated below. No device conduits are permitted in or below slabs unless serving a device or millwork that requires it. Below slab conduit may be used from MDP to the secondary panels only. Conduit shall be ¾" minimum trade size. MC cable may be used for "lighting whips" of lengths less than 6'0". EMT conduit should be used within walls and above ceilings to ease future circuit and technology upgrades.
14. PVC conduit is not allowed except for the underground portion of the incoming utility service to the buildings. It must then be encased in 3" of concrete. All elbows and risers to 6" above finished floor in PVC conduit runs must be rigid steel. PVC elbows are not allowed.
15. MC cable is not allowed for use in walls to devices.

Standards - Lighting

1. Interior instructional spaces shall be artificially illuminated with energy-efficient and high-efficiency ~~fluorescent~~ light fixtures. ~~utilizing low harmonic electronic ballasts and low-mercury certified lamps.~~
2. High volume spaces such as gymnasiums, student dining, etc., shall be illuminated with high-efficiency, high-intensity discharge lamp type light fixtures; or, an equal or better energy efficient fluorescent luminaire that maintains or increases light levels. Fluorescent luminaires which are at least as efficient as high- intensity discharge fixtures are recommended over seating areas. Quartz restrike options shall be incorporated into some fixtures to provide an average of 2 foot-candles of illumination during the cool- down/warm-up (restrike) period caused by momentary electrical outages.
1. The minimum illumination (foot-candle) levels shall conform to the established Illuminating Engineers Society of North America (IES) guidelines. See the "School Lighting Levels" ~~illumination~~ chart at the end of this ~~s~~Section 7400. Foot-candle calculation shall be developed by using computerized point-by-point analysis of classrooms and other learning spaces. Ceiling, wall, and floor material reflectances shall be verified with the Electrical Design Professional.
2. Emergency means of egress lighting shall be provided per local and NFPA Code requirements. The following areas shall have emergency illumination whether having natural illumination or not:
   - Exits and exit access corridors
   - Small and large assembly areas
   - Locker rooms
   - Student restrooms
   - Main and other dedicated electrical rooms
   - Main mechanical room and other mechanical decks
   - Emergency power equipment location
   - Administration and other building control areas

~~Outlet~~ Recommended Device Locations

ELECTRICAL OUTLET DEVICE TYPE	Masonry Wall, Base (Starter) Course Height 4 inch ~~8 inch~~ Mounting Height Above Floor to Bottom of Outlet (Device) Box	Masonry Wall, Base (Starter) Course Height 8 inch Mounting Height Above Floor to Bottom of Outlet (Device) Box
Receptacle outlets, microphone outlets (jacks), equipment outlets (jacks), television outlets (jacks), portable telephone outlets, computer outlets, etc.		
* General throughout	18"	18"
* Mechanical equipment rooms	52"	48"
* Above counter tops 30"H	36"	40"
36"H	44"	48"
48"H	52"	56"
* Above backsplash top	2" minimum	2" minimum
* Above radiators	6" minimum	6" minimum
* Above or adjacent to lavatories	44"	48"
* Behind domestic refrigerators	52"	56"
* Behind domestic washers and dryers	36"	32"
* Serving domestic dishwashers	2"	2"
* Wall-mounted telephone outlets	44"	48"
* Telephone/video control	44"	48"
Toggle switches	48"	48"
Recessed motor controllers	60"	56"
Electric panels, terminal cabinets, etc., to center of tub or box	50"	48"
Clocks	Near ceiling	Near ceiling
Pull stations (fire alarm)	44"	44"
Volume controls, call-in switches, doorbell buttons	44"	44"
Horn/strobes (fire alarm)	80"	80"

Technology Systems

Components - Technology Systems

- General
- Technology Wiring
- Telecommunications Room Wiring
- Telecommunications Room Interior Environment
- Telecommunications Room Terminations
- Building Technology Wiring
- Telephone Systems
- Data/Communications Network
- Central Sound System/Public Address System
- Gymnasium Sound Reinforcement System
- High School Student Dining Area Sound Reinforcement System
- Student Dining Sound Reinforcement Systems (Cafetoriums only)
- Music Room Sound Reinforcement Systems
- Security Systems (optional)
- Interactive Classroom Design (optional)

Standards - General - Technology Systems

1. A Technology System Plan and Specifications shall be prepared ~~as part of the overall building design process before construction begins~~ in accordance with the latest edition of the Building Industry Consulting Service International (BICSI) Telecommunications Distribution Methods Manual (TDMM). ~~It shall be designed and approved by a Registered Communications Distribution Designer (RCDD).~~
2. All work shall be performed in accordance with the latest revisions of the following standards and codes:
   - ~~Uniform Building Code~~State Building Code
   - Local Building Code
   - Local Electrical Code
   - National Electrical Code
   - EIA/TIA-568-C Commercial Building Wiring Standards
   - EIA/TIA-569-C Commercial Building Standard for Telecommunication Pathways and Spaces
   - TIA 606-B Telecommunications Administration Labeling Standard
   - EIA/TIA J-STD-607-B~~A~~ Commercial Building Grounding/Bonding Requirements Standard
3. A Technology System Plan shall consist of the following minimum Telecommunications Drawings, as required:
   - Campus or Site Plans, Exterior Pathways, and Inter-Building Backbones
     - Shows physical and logical connections from the perspective of an entire campus - such as actual building locations, exterior pathways, inter-building backbone cabling on plan view drawings, and major

Guidelines - Technology System

- The Technology System Plan and Specifications should be designed and approved by a Registered Communications Distribution Designer (RCDD).