OHIO SCHOOL FACILITIES COMMISSION

2014 Educational Facility Planning Guide

The Ohio School Facilities Commission (OSFC) is pleased to announce the 2014 Ohio School Design Manual (OSDM) update.

Each year the Commission revises the OSDM with support and valuable input from the design and construction community, school districts, state agencies and other interested parties. The result is a dynamic document that reinforces our commitment to high quality school facilities while maintaining flexibility and local control.

This year's update includes a separate volume entitled, "VOLUME 1 - EDUCATIONAL FACILITY PLANNING GUIDE" which is a stand-alone guide for school districts to use as a guide for facility planning. This stand-alone guide outlines the process from inception up to the design phase of a facility project. The separate volume provides school districts the planning tools required for a facility project without the length and quantity of the entire OSDM.

The manual is a cornerstone of the Commission's efforts to promote the 21st Century learning environment, providing guidelines that serve the diverse needs of local school communities and their students. For our Design Professionals, the OSDM provides a wide selection of high quality materials and systems to serve the districts over the entire lifecycle of the building. This approach ensures that both the district and the taxpayers of Ohio achieve the maximum benefit from their investment.

Ohio continues to build on past design achievements that meet the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) for Schools. The LEED system is the national benchmark for high performance green buildings.

The OSFC acknowledges the difficult design and construction tasks that ultimately result in the buildings so critical to our Ohio communities and the new educational goals set by Governor Kasich. There is a necessary balance measured between the complexity and cost of 21st century structures and the sustainability and maintenance requirements to be borne by local taxpayers for decades to come.

We look forward to working with you to design and build exciting educational environments for Ohio school students.

Sincerely,
Ohio School Facilities Commission

Richard M. Hickman
Executive Director

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.

OHIO SCHOOL DESIGN MANUAL
Ohio School Facilities Commission

TABLE OF CONTENTS

0010 Foreword
0020 Table of Contents

VOLUME ONE: EDUCATIONAL FACILITY PLANNING GUIDE

0050 Summary
- ***0051 Introduction***
- ***0052 Overview of the Process***
- ***0053 Participants and Role Development***

0100 Data Collection
- ***0101 Facility Assessments***
- ***0102 Enrollment Study / Enrollment Projections***

0110 Educational Planning
- ***0111 Educational Learning Environments***
- ***0112 Educational Environment Concepts***
- ***0113 Career Tech***
- ***0114 Special Education (pre-K, Special Ed)***

0120 Process
- ***0121 Overview***
- ***0122 Community Engagement***
- ***0123 Master Facilities Plan***
- ***0124 Learning Environment Worksheet (POR)***
- ***0125 Planning and Funding Parameters***
- ***0126 Project Agreement***

© Ohio School Facilities Commission 1997

(Revised 7/1/99, 7/1/00, 7/1/01, 4/1/02, 4/1/03, 4/1/04, 4/1/05, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013 and ***2014***.)

The Ohio School Facilities Commission (OSFC) is an independent agency of the State within the Ohio Facilities Construction Commission (OFCC) and is charged with overseeing the design and construction of school facilities in the state of Ohio. A school facilities project is a very exciting event for a school district, but it can also be complex and overwhelming.

The Ohio School Design Manual (OSDM) has been developed to provide consistent, clear information for school districts and design professionals as a new generation of schools is being created for Ohio. The guidelines are the culmination of standards, accepted procedures, statutory requirements, and the experience of experts and authorities throughout the United States. The guidelines provided in the OSDM establish a uniform level of quality and sustainability for all public school buildings. The OSDM applies to new school facilities and new additions to existing buildings. Renovation to existing facilities should adhere to the OSDM guidelines when possible.

Since the OSDM communicates a vast amount of information on so many planning, design, and construction issues, the length and quantity of the OSDM can be intimidating. However, understanding how the OSDM is organized and which information will be needed during the various phases of the process will enable each participant to be better prepared for the exciting opportunity of creating school facilities.

This year's update includes a separate volume entitled, "VOLUME 1 - EDUCATIONAL FACILITY PLANNING GUIDE" which is a stand-alone guide for school districts to use as a guide for facility planning. This stand-alone guide outlines the process from inception up to the design phase of a facility project. The separate volume provides school districts the planning tools required for a facility project without the length and quantity of the entire OSDM.

An important consideration in developing a state-wide program that must provide equity among districts is the balance between broadly applicable standards and program delivery. A fundamental tenet of educational facility planning is that school facilities must be responsive to a school district's educational program. The OSDM allows districts to develop building programs that respond to their current, unique needs as well as preparing for their educational future. There are also many different ways in which districts are delivering educational programs and helping students accomplish learning objectives at each grade level and school. By designing classrooms and other instructional spaces to be flexible and adaptable, districts are better prepared to accommodate future educational program developments.

The EDUCATIONAL FACILITY PLANNING GUIDE begins the exciting process of developing learning facilities that respond to the needs of learners. This separate volume incorporates the development and outcome of the district's vision into the design process which will reinforce the transformation to learner centered facilities.

Additionally, sustainable, energy efficient features will be incorporated into school facilities designs. These features will have a positive impact on student academic achievement. By promoting the design and construction of green schools, we can make a significant impact on student health, test scores, teacher retention, school operating costs and the environment.

In response to the desire for sustainable designs and the Governor's Executive Order 2007-02S, Coordinating Ohio Energy Policy and State Energy Utilization, the OSFC

adopted Resolution 07-124, Approving Incorporation of Energy Efficiency and Sustainable Design Features into the Commission's Programs. As a measure of success, the Commission adopted the U.S. Green Building Council's (USGBC) LEED for Schools (Leadership in Energy and Environmental Design) Silver Certification as its benchmark with preferred investment in attaining LEED points in the energy and atmosphere category.

The OSDM is required by state law to provide the parameters for building assistance programs in which the school district and the State of Ohio share the building costs. Throughout the planning, design, and construction phases of every project there are four factors that must be considered and held in balance: quality, cost, optimizing energy performance, and time (schedule). The OSDM was created to provide parameters for balancing these four essential elements fairly for all the projects in each district throughout the state.

The Career-Technical School sections are intended to be used in conjunction with the OSDM to address all aspects of programming, design, and construction of Career-Technical and Comprehensive High Schools that are not explicitly covered by other sections of the OSDM. They provide guidelines for the size and quantity of instructional and support spaces as well as material/system components necessary for the construction of Career-Technical School facilities and the Career-Technical components of Comprehensive High Schools.

Equality among school districts related to size of career-technical spaces, finishes, systems and costs is the primary purpose of the Career-Technical sections. It is the intent of the OSFC Vocational Facilities Assistance Program (VFAP) to improve existing Career-Technical program spaces, especially in relation to curriculum and instructional delivery methods, building codes, OSHA requirements, and fire safety. The space guidelines set forth in these sections are intended to meet these requirements as well as to accommodate the best practices for the delivery of Career-Technical programming.

There is no intent within the context of the OSDM to restrict, encourage, or otherwise influence the requirements of the public bidding laws of the State of Ohio relative to entities bidding on labor, material, products, or services. Names of proprietary organizations are not stated within the manual, and the intent is to encourage open, competitive bidding for the work.

The OSDM is the exclusive property of the OSFC of the State of Ohio, and the OSFC reserves the right to add, delete, modify, or otherwise change the content of this manual at any time. Specific information contained within the manual will be periodically modified to reflect current conditions.

The planning strategies involved in this process have been developed, refined, and have proven to be successful in millions of dollars worth of school projects. Each team member will need to access various portions of the Ohio School Design Manual (OSDM) to better understand his/her role and fulfill his/her responsibilities.

A. SUMMARY OF THE PLANNING PROCESS

The following section describes an overview of the planning process. The planning process is defined by two categories being **PRE-PLANNING** and **PLANNING, APPROVAL AND FUNDING**

PRE-PLANNING

The school district establishes partnerships with the community, establishes and refines their educational program, and connects its educational program with its shared vision of the facilities.

PLANNING, APPROVAL AND FUNDING

The Planning, Approval, and Funding portion of the Ohio School Facilities Commission (OSFC) process includes data-gathering activities (developing enrollment projections and assessing existing facilities), incorporating the data into a Master Facilities Plan, site selection, approvals of the Master Facilities Plan, and securing funding for the district's building program.

The following chart provides an overview of the planning process within each category, an approximate activity duration and the responsible participants for each.

SUMMARY
OVERVIEW OF THE PROCESS

PARTICIPANT LEGEND
ACTIVE PARTICIPANT
ADVISORY / REVIEW
MINIMAL / NO PARTICIPATION

PHASE	Approximate Duration	PHASE Brief Description	School District (SD)	OSFC Planner (OSFC-P)	Regional Program Consultant (RPC)	Assessment Consultant (AC)	Enrollment Projection Consultant (EPC)	Pre-Bond Design Professional (PBDP)	Educational Planner (EP)	OSFC Project Manager (OSFC-PM)	Design Professional (DP)	Construction Professional (CP)	Commissioning Maintenance Agent (CMA)
PRE-PLANNING	PRIOR TO PROJECT BEGINNING	**ESTABLISH PARTNERSHIPS WITH COMMUNITY STAKEHOLDERS** The school district should undertake a process to establish partnerships with community stakeholders, establish and refine its educational vision, and review school facilities in connection with that educational program and vision.											

			PARTICIPANT LEGEND ACTIVE PARTICIPANT ADVISORY / REVIEW MINIMAL / NO PARTICIPATION										
PHASE	**Approximate Duration**	**PHASE** Brief Description	School District (SD)	OSFC Planner (OSFC-P)	Regional Program Consultant (RPC)	Assessment Consultant (AC)	Enrollment Projection Consultant (EPC)	Pre-Bond Design Professional (PBDP)	Educational Planner (EP)	OSFC Project Manager (OSFC-PM)	Design Professional (DP)	Construction Professional (CP)	Commissioning Maintenance Agent (CMA)
		ESTABLISH / REFINE EDUCATIONAL VISION Stakeholders should work together to develop an educational vision. Questions that may be answered include: • What are the most appropriate program areas and delivery systems for the district? • What does educational research suggest? • What is the most appropriate grade configuration or school size? • What areas are working? What needs to be changed?											

SUMMARY
OVERVIEW OF THE PROCESS

PARTICIPANT LEGEND
ACTIVE PARTICIPANT
ADVISORY / REVIEW
MINIMAL / NO PARTICIPATION

PHASE	Approximate Duration	PHASE Brief Description	School District (SD)	OSFC Planner (OSFC-P)	Regional Program Consultant (RPC)	Assessment Consultant (AC)	Enrollment Projection Consultant (EPC)	Pre-Bond Design Professional (PBDP)	Educational Planner (EP)	OSFC Project Manager (OSFC-PM)	Design Professional (DP)	Construction Professional (CP)	Commissioning Maintenance Agent (CMA)
		CONNECT EDUCATIONAL PROGRAM AND VISION WITH FACILITIES Connections must address the relationship of every site's school improvement planning process, the facility that is being considered, and community involvement in taking ownership of the process. Questions that address connecting the educational program with facilities include: • What are the future educational programs and/or systems that will impact facilities? • What priorities should be addressed regarding the educational program and facilities? Once the district has developed an educational vision, it is now time to assess the physical condition of the district's classroom facilities and the ability of those facilities to support the district's educational vision. The district may apply for the Facilities Assessment Program (FAP) only at any time to determine the condition of their classroom facilities.											

PARTICIPANT LEGEND
ACTIVE PARTICIPANT
ADVISORY / REVIEW
MINIMAL / NO PARTICIPATION

PHASE	Approximate Duration	PHASE Brief Description	School District (SD)	OSFC Planner (OSFC-P)	Regional Program Consultant (RPC)	Assessment Consultant (AC)	Enrollment Projection Consultant (EPC)	Pre-Bond Design Professional (PBDP)	Educational Planner (EP)	OSFC Project Manager (OSFC-PM)	Design Professional (DP)	Construction Professional (CP)	Commissioning Maintenance Agent (CMA)
PRE-PLANNING	PRIOR TO PROJECT BEGINNING	**PROGRAMS and APPLICATION PROCESS** **Facility Assessment Program (FAP)** Permits school districts to receive a district-wide assessment and master facility plan for existing classroom facilities. This information empowers the district to make informed decisions regarding its facilities. **Non-funded Program, Expedited Local Partnership Program (ELPP) or Vocational Facilities Assistance Program (VFAP) ELPP)** ELPP permits school districts that are estimated to be over two years away from eligibility for state assistance under the Classroom Facilities Assistance Program (CFAP) to receive a district-wide assessment and master facilities plan from the OSFC. The OSFC will assess the classroom facilities needs of participating districts, and, in collaboration with the district, develop a district-wide master facilities plan. Program participants may spend local resources on a discrete part of their overall master facilities plan (either new construction or major renovation) and later receive credit for qualifying expenditures from the school district's share of the overall project budget when the district becomes eligible for state assistance under CFAP or VFAP. **Funded Program Exceptional Needs Program (ENP)** ENP is a building replacement program that provides school districts with the ability to protect the health and safety of their students with a new facility. The program has a single building orientation, so it will not necessarily fund a district's entire facilties needs.											

SUMMARY
OVERVIEW OF THE PROCESS

PARTICIPANT LEGEND
ACTIVE PARTICIPANT
ADVISORY / REVIEW
MINIMAL / NO PARTICIPATION

PHASE	Approximate Duration	PHASE Brief Description	School District (SD)	OSFC Planner (OSFC-P)	Regional Program Consultant (RPC)	Assessment Consultant (AC)	Enrollment Projection Consultant (EPC)	Pre-Bond Design Professional (PBDP)	Educational Planner (EP)	OSFC Project Manager (OSFC-PM)	Design Professional (DP)	Construction Professional (CP)	Commissioning Maintenance Agent (CMA)
PRE-PLANNING	1 MONTH	**NOTIFICATION OF ELIGIBILITY FOR FUNDED PROGRAM (CFAP,VFAP or ENP)** CFAP provides funding for the entire or a segment of the facility needs of a school district. Each school district is ranked on the School District Ranking List supplied to the OSFC by the Ohio Department of Education (ODE). Vocational Facility Assistance Program (VFAP) provides funding for vocational, career technical, and comprehensive high schools similar to the CFAP program.	ADVISORY / REVIEW	ACTIVE PARTICIPANT									
PLANNING	PRIOR TO PROJECT BEGINNING	**DISTRICT SELECTS PRE-BOND DESIGN PROFESSIONAL** The district is responsible for interviewing and selecting the Pre-Bond Design Professional (PBDP) for pre-bond services. The PBDP is responsible for review of the assessment and master plan options. The PBDP assists in site selection, segmenting and estimating locally funded initiatives. The PBDP provides support at meetings. OSFC does not co-fund pre-bond services.	ACTIVE PARTICIPANT					ADVISORY / REVIEW					

PARTICIPANT LEGEND
ACTIVE PARTICIPANT
ADVISORY / REVIEW
MINIMAL / NO PARTICIPATION

PHASE	Approximate Duration	PHASE Brief Description	School District (SD)	OSFC Planner (OSFC-P)	Regional Program Consultant (RPC)	Assessment Consultant (AC)	Enrollment Projection Consultant (EPC)	Pre-Bond Design Professional (PBDP)	Educational Planner (EP)	OSFC Project Manager (OSFC-PM)	Design Professional (DP)	Construction Professional (CP)	Commissioning Maintenance Agent (CMA)
PLANNING	1- 2 MONTHS	**OSFC CONDUCTS FACILITY ASSESSMENT** The development of a uniform and comprehensive assessment of a district's facilities is central to CFAP, VFAP, ENP, ELPP and VFAP ELPP. The process has evolved since 1997 and is accomplished through an Assessment Consultant (AC) working with a sophisticated internet-based assessment tool. The school district will be requested to provide floor plans and other information and to make Facilities Managers available to assist the consultants in the evaluation of the facilities. The facility assessment report contains a variety of data about each of the district's buildings, such as: site acreage, current grade configuration, capacity, number of floors, number of teaching stations, total building square footage, and the dates of construction for the original building and additions. However, it is important for all parties to understand that the use of the facility assessment report is for the purpose of developing an estimated project cost and scope based on best available data. Conditions which are hidden or otherwise unknown may have an impact on the final project cost. The AC reviews 23 building components and applies a funding level to each of these components in order to bring the existing condition or system(s) to the minimum level described within the OSDM standards. The assessment report will either indicate no work required, supplementing a system or component, or complete replacement of a system or component based upon age, condition, size, or non-existence. Additionally, the facility assessment report contains the Council of Educational Planners International (CEFPI) facility appraisal review, report and summary. The purpose of the CEFPI appraisal form is to subjectively report on conditions of the facility. Refer to section 0101 for additional information.											

SUMMARY
OVERVIEW OF THE PROCESS

PARTICIPANT LEGEND
ACTIVE PARTICIPANT
ADVISORY / REVIEW
MINIMAL / NO PARTICIPATION

PHASE	Approximate Duration	PHASE Brief Description	School District (SD)	OSFC Planner (OSFC-P)	Regional Program Consultant (RPC)	Assessment Consultant (AC)	Enrollment Projection Consultant (EPC)	Pre-Bond Design Professional (PBDP)	Educational Planner (EP)	OSFC Project Manager (OSFC-PM)	Design Professional (DP)	Construction Professional (CP)	Commissioning Maintenance Agent (CMA)
PLANNING	1 -2 MONTHS	**DEVELOP ENROLLMENT STUDY FOR A TYPICAL PRE-K-12 SCHOOL, ELPP, FAP, ENP, or CFAP** An important component of the OSFC planning protocol is the development of student enrollment projections. Upon entering a program, OSFC assigns an Educational Projection Consultant (EPC) to develop the enrollment projections. The objective is to determine the number of students for which the buildings should be designed. The enrollment history of the school district is obtained through an online district questionnaire. School district demographics such as live birth statistics, population information, housing starts, and survival rates are all combined to project the district's enrollment 10 years into the future. Refer to section 0102 for additional information. **DEVELOP ENROLLMENT STUDY FOR A CAREER-TECHNICAL SCHOOL** An important component of the OSFC planning protocol is the development of student enrollment projections. Upon entering the VFAP ELPP or VFAP, the OSFC assigns an Educational Projection Consultant (EPC) to develop the enrollment projections. The objective is to determine the number of students for which the buildings should be designed. The enrollment history of the school district is obtained through an online district questionnaire. Additional enrollment information is obtained from the Ohio Department of Education (ODE) on associate districts. Refer to section 0102 for additional information.											

PARTICIPANT LEGEND
ACTIVE PARTICIPANT
ADVISORY / REVIEW
MINIMAL / NO PARTICIPATION

PHASE	Approximate Duration	PHASE Brief Description	School District (SD)	OSFC Planner (OSFC-P)	Regional Program Consultant (RPC)	Assessment Consultant (AC)	Enrollment Projection Consultant (EPC)	Pre-Bond Design Professional (PBDP)	Educational Planner (EP)	OSFC Project Manager (OSFC-PM)	Design Professional (DP)	Construction Professional (CP)	Commissioning Maintenance Agent (CMA)
PLANNING, APPROVAL, AND FUNDING	3 - 8 MONTHS	**DEVELOP MASTER FACILITIES PLAN SPECIFYING SCOPE AND COST FOR K-12 SCHOOLS AND/OR CAREER-TECHNICAL SCHOOLS** **K-12 SCHOOLS** After the Assessment and Enrollment Projection reports are completed, the Master Facilities Plan is developed to define the scope of work and budget for each of the school district's classroom facilities. The number of students projected for each school is entered into the grade level-appropriate spreadsheet in the Ohio School Design Manual (OSDM) to determine the total gross square footage for that school in the Master Facilities Plan. Square foot allowance charts can be found in Chapter 2, Section 2000 of the OSDM. When Career-Technical programs are provided at the facility, the projected enrollment in the Career-Technical program is used along with the types of programs to develop a space allocation for those high schools housing Career-Technical programs. **CAREER-TECHNICAL SCHOOLS** After the assessment and enrollment reports are completed, the Master Facilities Plan is developed to define the scope of work and budget for each of the district's classroom facilities. The number of career-technical students for each school is entered into the core space spreadsheet in Chapter 2 of the OSDM (Career-Technical section) to determine the total gross core square footage for that school in the Master Facilities Plan. The program area is determined by developing a program of requirements. Square foot maximum charts can be found for both core and program areas in Chapter 2, Section 2700 of the OSDM (Career-Technical section). The core square footage for each school is then multiplied by the allowable cost per square foot for that school level and school size (data found in Section 1200 of the OSDM). All buildings in the school district are aggregated to determine the overall budget for the Master Facilities Plan.											

SUMMARY
OVERVIEW OF THE PROCESS

PARTICIPANT LEGEND
- ACTIVE PARTICIPANT
- ADVISORY / REVIEW
- MINIMAL / NO PARTICIPATION

PHASE	Approximate Duration	PHASE Brief Description	School District (SD)	OSFC Planner (OSFC-P)	Regional Program Consultant (RPC)	Assessment Consultant (AC)	Enrollment Projection Consultant (EPC)	Pre-Bond Design Professional (PBDP)	Educational Planner (EP)	OSFC Project Manager (OSFC-PM)	Design Professional (DP)	Construction Professional (CP)	Commissioning Maintenance Agent (CMA)
PLANNING, APPROVAL, AND FUNDING	1 MONTH	**STATE AND LOCAL SHARE FUNDING** Once the Master Facilities Plan is developed a program specific calculation worksheet will be used to determine the state and local share. For values that change over time, e.g. net bonded indebtedness and assessed valuation, consult with OSFC and bond counsel for the correct figures to use.	■	■						▒			
PLANNING, APPROVAL, AND FUNDING	1 MONTH	**STATE AND DISTRICT PROJECT AGREEMENT** This standardized Agreement serves as the basis of the relationship between the school district and the OSFC until the Project Completion Certificate is signed. It has been coordinated with three other documents; the Architect's Agreement with the school district, the CP's agreement, and the General Conditions or the Contracts for Construction. Refer to section 0126 for additional information.	■	■						▒			
END OF PLANNING PROCESS AND BEGINNING OF DESIGN AND CONSTRUCTION PROCESS Refer to section 1020 in Volume 2 for additional information within the Design and Construction Process													
CONTRACTING	2 - 4 MONTHS	**CONTRACT FOR DESIGN PROFESSIONAL** The selection of the Design Professional (DP) to provide services for the Design/Bid/Build process is made jointly through a publicly-advertised qualifications-based selection process. The typical process involves publicly requesting Statements of Qualifications, review and short-listing of the submitting firms, and final interviews to rank as many as three candidate firms. Only after selecting the top firm do the owners enter into fee negotiations. OSFC must approve the DP's contract.	■	▒						■	■		
CONTRACTING	2 - 4 MONTHS	**CP SELECTION AND CONTRACT** The selection of the Construction Professional (CP) is made by the *owner team*. The selection process again is a qualifications-based, open process involving advertisement, short-listing, interviews and final ranking and final selection. The fees are negotiated by the *owner team*.	■	▒						■		■	

PHASE	Approximate Duration	PHASE Brief Description	School District (SD)	OSFC Planner (OSFC-P)	Regional Program Consultant (RPC)	Assessment Consultant (AC)	Enrollment Projection Consultant (EPC)	Pre-Bond Design Professional (PBDP)	Educational Planner (EP)	OSFC Project Manager (OSFC-PM)	Design Professional (DP)	Construction Professional (CP)	Commissioning Maintenance Agent (CMA)
PRE-DESIGN		**SELECT COMMISSIONING MAINTENANCE AGENT (CMA)** The CMA employed directly by the school district, acts independently of the Designers to assure that the Building Systems will function within the parameters established as the basis for their design and the owner's design intent. At the beginning of the design process, the agent establishes a Commissioning Plan to be followed throughout design and construction efforts and post occupancy. The Commissioning Plan establishes operational objectives, monitors installation procedures, and incorporates functional testing protocols. The CMA is an independent third party with no other ties to the project. The CMA cannot be tasked with conducting any subsequent corrective actions beyond that of the CMA role.	ACTIVE PARTICIPANT	ADVISORY / REVIEW	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	ACTIVE PARTICIPANT	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	ACTIVE PARTICIPANT
PRE-DESIGN	2 - 6 MONTHS	**PRE-DESIGN (PD)** The Pre-Design Phase (PD) of the project includes the development of the Program of Requirements (POR) defined above, LEED Registration, LEED point checklist and initial energy modeling. The PD information is reviewed and approved by the Project Team before starting the Schematic Design (SD).	ACTIVE PARTICIPANT	ADVISORY / REVIEW	ADVISORY / REVIEW	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	ACTIVE PARTICIPANT	MINIMAL / NO PARTICIPATION	ACTIVE PARTICIPANT	ADVISORY / REVIEW	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION
PRE-DESIGN	1 - 2 MONTHS	**ECO CHARRETTE** Sustainable, energy efficient features will be incorporated into school facility designs. These features will have a positive impact on student academic achievement. By promoting the design and construction of "green" schools, we can make a significant impact on student health, test scores, teacher retention, school operating costs, and the environment. Emphasis is given to energy efficiency in the design of new and renovated facilities. An integrated design approach is encouraged, and energy modeling early in the design process is required. This modeling should include the design choices and optimize the building's energy efficiency. (See Chapter 7, pages 7010-1 and 7010-2).	ACTIVE PARTICIPANT	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	ADVISORY / REVIEW	MINIMAL / NO PARTICIPATION	ADVISORY / REVIEW	ACTIVE PARTICIPANT	ADVISORY / REVIEW	MINIMAL / NO PARTICIPATION

PARTICIPANT LEGEND
- ACTIVE PARTICIPANT
- ADVISORY / REVIEW
- MINIMAL / NO PARTICIPATION

SUMMARY
OVERVIEW OF THE PROCESS

PARTICIPANT LEGEND
ACTIVE PARTICIPANT
ADVISORY / REVIEW
MINIMAL / NO PARTICIPATION

PHASE	Approximate Duration	PHASE Brief Description	School District (SD)	OSFC Planner (OSFC-P)	Regional Program Consultant (RPC)	Assessment Consultant (AC)	Enrollment Projection Consultant (EPC)	Pre-Bond Design Professional (PBDP)	Educational Planner (EP)	OSFC Project Manager (OSFC-PM)	Design Professional (DP)	Construction Professional (CP)	Commissioning Maintenance Agent (CMA)
DESIGN	ALL DESIGN PHASES 10 - 15 MONTHS	**Develop Program of Requirements (POR)** The Development of the POR (identification of space needs) should begin with a thorough understanding of current and future student instructional needs. The school district Administration is encouraged to consider contracting with an Educational Planner (EP), whose primary function will be to assist the district and its stakeholders in developing/reviewing its educational mission, goals, and vision and then communicating that vision to the design team. This process should include administration, staff, OSFC representatives, students and interested community members. Following the planning process with the EP, information such as the grades to be housed, the number of students per grade and the square footage per student are entered into the OSDM active excel spreadsheets yielding the Total Gross Building Square Footage. Using the Bracketing Chapter of the OSDM, prototypical space allocations for specific grade groupings are reviewed and a district specific written building space plan is developed. Various schemes are developed and tested against the allowable square footage until the school district's Educational Delivery Plan is manifested in a space plan. The POR is a written listing of the spaces along with their respective square footages. Two-dimensional graphic building plans should not be developed until the written POR has been completed and approved by the Project Team. If the school district elects to proceed with components not listed as acceptable in the OSDM, the school district may proceed with district funds in addition to the prescribed district millage requirement or apply for a variance. Deviations should be discussed with the OSFC staff during the early planning phases of the project. Upon recommendation of the Variance Committee, the Executive Director may approve the variance, where there is agreement that the variation will result in good value for the district while maintaining the budget.											

PARTICIPANT LEGEND
ACTIVE PARTICIPANT
ADVISORY / REVIEW
MINIMAL / NO PARTICIPATION

PHASE	Approximate Duration	PHASE Brief Description	School District (SD)	OSFC Planner (OSFC-P)	Regional Program Consultant (RPC)	Assessment Consultant (AC)	Enrollment Projection Consultant (EPC)	Pre-Bond Design Professional (PBDP)	Educational Planner (EP)	OSFC Project Manager (OSFC-PM)	Design Professional (DP)	Construction Professional (CP)	Commissioning Maintenance Agent (CMA)
DESIGN	ALL DESIGN PHASES 10 - 15 MONTHS	**SCHEMATIC DESIGN (SD)** During the SD Phase, the required spaces developed during the POR process are organized in functional groupings and oriented around building circulation and service systems. Along with the SD, the DP will submit the POR, LEED point checklist, energy modeling, technology system schematic and description, and energy consumption information. The SD information is reviewed and approved by the Project Team before starting the Design Development (DD) Phase.											
		DESIGN DEVELOPMENT (DD) During the DD Phase the design is further refined to incorporate the actual materials and systems that will be used in construction. Detailed calculations for material stresses, heat loss/gain, and electrical loads are made and the final configuration of materials is established. Preliminary Specifications for all components are prepared and are used along with the drawings in the preparation of the construction estimate of cost by the CP. The DD documents including the POR, LEED point checklist, energy modeling, technology system documents, and drawings, are reviewed and approved by the Project Team before starting the Construction Documents (CD) Phase.											

SUMMARY
OVERVIEW OF THE PROCESS

PARTICIPANT LEGEND
ACTIVE PARTICIPANT
ADVISORY / REVIEW
MINIMAL / NO PARTICIPATION

PHASE	Approximate Duration	PHASE Brief Description	School District (SD)	OSFC Planner (OSFC-P)	Regional Program Consultant (RPC)	Assessment Consultant (AC)	Enrollment Projection Consultant (EPC)	Pre-Bond Design Professional (PBDP)	Educational Planner (EP)	OSFC Project Manager (OSFC-PM)	Design Professional (DP)	Construction Professional (CP)	Commissioning Maintenance Agent (CMA)
DESIGN	ALL DESIGN PHASES 10 - 15 MONTHS	**CONSTRUCTION DOCUMENTS (CD)** At the conclusion of the DD Phase, all decisions regarding the make-up of the new building should be resolved and documented. Adjustments should have been made in the design to bring the cost estimate into alignment with the project budget. The objective of the CD Phase is to prepare documentation that will accurately and precisely convey the design to the prime contractors who will construct it. In essence, the DD drawings and specifications are refined and combined with Instructions to Bidders and General Conditions of the Contract for Construction and other documents necessary to define the activities of all parties during the actual construction. Additionally, the LEED point checklist, energy modeling, technology drawings, and USGBC Design Review Comments are included as part of the CD documents. These documents are used as the basis of the final estimate of construction cost necessary for a recommendation to the school district and OSFC prior to entering the Bidding Phase (BP). These documents are submitted for agency approval necessary for the issuance of a building permit.											
BIDDING	ALL BIDDING PHASES 1 - 3 MONTHS	**BIDDING PHASE (BP)** The structure of the BP is defined by statute. The process begins with the public advertisement for bidders. This advertisement describes work divided into trade packages. It indicates where the documents can be obtained and states the date, time, and place of the public bid opening. It establishes a time and place for a pre-bid conference during which the contractors can ask questions related to the project. Sealed prime contract bids are received at the bid time and publicly opened, read aloud and tabulated.											

SUMMARY
OVERVIEW OF THE PLANNING PROCESS

PARTICIPANT LEGEND
ACTIVE PARTICIPANT
ADVISORY / REVIEW
MINIMAL / NO PARTICIPATION

PHASE	Approximate Duration	PHASE Brief Description	School District (SD)	OSFC Planner (OSFC-P)	Regional Program Consultant (RPC)	Assessment Consultant (AC)	Enrollment Projection Consultant (EPC)	Pre-Bond Design Professional (PBDP)	Educational Planner (EP)	OSFC Project Manager (OSFC-PM)	Design Professional (DP)	Construction Professional (CP)	Commissioning Maintenance Agent (CMA)
BIDDING	1 MONTH	**EVALUATE BIDDERS** After the bid opening meeting, the apparent low bidders are evaluated to determine whether they are responsible according to criteria set forth in law. The bid packages are carefully examined by district counsel and the CP for compliance with the bidding requirements.											
BIDDING	ALL BIDDING PHASES 1 - 3 MONTHS	**ENTER INTO CONTRACTS** Within 60 days of the receipt of bids, the CP and low bid contractors work together to prepare construction contracts for the work on form documents provided by OSFC. The contracts are approved by resolution of the school disytrict and the OSFC.											
		TRADE CONTRACTOR PARTNERING Similar in format to the previous day-long executive partnering session, the trade contract partnering session introduces the prime contractors to the team. Objectives and concerns are discussed, communication channels are established and dispute resolution procedures are agreed upon.											
CONSTRUCTION	18 - 24 MONTHS	**CONSTRUCT BUILDING** This phase takes more time than any of the others. Sometimes it takes as much as 18 or 24 months for a single K-12 or high school. Often it begins with a sitework package which commences prior to all the documents being complete for the building itself. This work can include the preparation of the entire site and the construction of the building pad. Normally the construction of a school is done as if the building were divided up into four or six different building projects allowing the contractors to move sequentially through the entire project.											

SUMMARY
OVERVIEW OF THE PROCESS

PARTICIPANT LEGEND
- ACTIVE PARTICIPANT
- ADVISORY / REVIEW
- MINIMAL / NO PARTICIPATION

PHASE	Approximate Duration	PHASE Brief Description	School District (SD)	OSFC Planner (OSFC-P)	Regional Program Consultant (RPC)	Assessment Consultant (AC)	Enrollment Projection Consultant (EPC)	Pre-Bond Design Professional (PBDP)	Educational Planner (EP)	OSFC Project Manager (OSFC-PM)	Design Professional (DP)	Construction Professional (CP)	Commissioning Maintenance Agent (CMA)
CONSTRUCTION	1 - 3 MONTHS	**PROCURE FURNITURE AND EQUIPMENT** While the furniture plan for a facility can and should be created at the same time that the SD, DD, and CD Phases are being completed, the actual bidding and ordering of the furniture is typically postponed until 6 to 9 months before the anticipated move in date. Specifications and materials change frequently in the furniture industry and items bid as much as a year ago, may no longer be available.	■							■	▒	■	
CONSTRUCTION	1 - 2 MONTHS	**DEVELOP MAINTENANCE PLAN** The school district maintenance plan is normally prepared by a Commissioning Maintenance Agent (CMA). Aided by a comprehensive web tool, the CMA creates an exhaustive list of every asset requiring maintenance in the building. The asset manufacturer's recommendations for ongoing maintenance and useful service life are analyzed, and a report is generated outlining the cost impact of maintaining the building. The revenue for maintenance is also analyzed, and a business plan is developed and presented to the school district for its use.	■							▒	▒	■	■
CONSTRUCTION	1 MONTH	**CLOSEOUT PARTNERING** The closeout partnering meeting brings all stakeholders together in a session to focus on the smooth completion of all participants' obligations under their contracts. A professional facilitator guides all parties step by step through the requirements.	■							▒	▒	■	▒
CONSTRUCTION	1 - 2 MONTHS	**PUNCH LIST** Having been notified by the contractors that their work is complete and compliant with the project documents, the DP and CP inspect the work and prepare a "punch list" of missing or deficient items. The items on this list must be completed, repaired or replaced by the contractors. When the corrections are accomplished and all items are accounted for on the punch list, the DP Team and the CP are notified to make a final inspection.	▒							▒	■	■	▒

SUMMARY
OVERVIEW OF THE PLANNING PROCESS

PARTICIPANT LEGEND
- ACTIVE PARTICIPANT
- ADVISORY / REVIEW
- MINIMAL / NO PARTICIPATION

PHASE	Approximate Duration	PHASE Brief Description	School District (SD)	OSFC Planner (OSFC-P)	Regional Program Consultant (RPC)	Assessment Consultant (AC)	Enrollment Projection Consultant (EPC)	Pre-Bond Design Professional (PBDP)	Educational Planner (EP)	OSFC Project Manager (OSFC-PM)	Design Professional (DP)	Construction Professional (CP)	Commissioning Maintenance Agent (CMA)
OCCUPANCY	1 MONTH	**MOVE INTO BUILDING** Time must be allocated in the schedule to deliver and set up loose furnishings and move equipment, supplies, and materials into the building.	ACTIVE PARTICIPANT	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	ADVISORY / REVIEW	ADVISORY / REVIEW	ADVISORY / REVIEW	MINIMAL / NO PARTICIPATION
OCCUPANCY	1 MONTH	**FINAL COMMISSIONING** While the CMA should be an active team member from the beginning, the work involved with system documentation and performance testing can only start as the systems come on line. Commissioning begins as systems are started and deemed functionally operational.	ADVISORY / REVIEW	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	ADVISORY / REVIEW	ADVISORY / REVIEW	ADVISORY / REVIEW	ACTIVE PARTICIPANT
POST-OCCUPANCY	11 MONTHS	**WARRANTY PERIOD** Normally the project specifications call for the contractor to provide a labor guarantee for a period of one year commencing when the school district begins to use the building. Equipment and product warranties are usually longer in duration and are set forth in the specifications. During the applicable period, the contractor is obligated to repair or replace any systems or materials that are not functioning as intended. An eleven month inspection of the building is conducted by the DP team, CMA, and CP, and deficiencies are listed. The contractor is obligated to correct those deficiencies much as he or she is obligated to do in the punch listing process.	ADVISORY / REVIEW	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	ADVISORY / REVIEW	ACTIVE PARTICIPANT	ACTIVE PARTICIPANT	ACTIVE PARTICIPANT
POST-OCCUPANCY	1 - 2 MONTHS	**PROJECT CLOSEOUT** The project closeout focuses more on the relationships between the school district and the contractors than on the school district and the OSFC. The closeout process is necessary to monitor and verify the submission of operation manuals, owner training, attic material stock, certificates contract completion and other documentation. The DP shall provide record documents to the school district prior to final completion. The requirements for record drawings and other provisions of the closeout process are set forth in the contracts and in OSFC policy and procedure memoranda.	ACTIVE PARTICIPANT	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	MINIMAL / NO PARTICIPATION	ADVISORY / REVIEW	ACTIVE PARTICIPANT	ACTIVE PARTICIPANT	ADVISORY / REVIEW

SUMMARY
OVERVIEW OF THE PROCESS

PARTICIPANT LEGEND
ACTIVE PARTICIPANT
ADVISORY / REVIEW
MINIMAL / NO PARTICIPATION

PHASE	Approximate Duration	PHASE Brief Description	School District (SD)	OSFC Planner (OSFC-P)	Regional Program Consultant (RPC)	Assessment Consultant (AC)	Enrollment Projection Consultant (EPC)	Pre-Bond Design Professional (PBDP)	Educational Planner (EP)	OSFC Project Manager (OSFC-PM)	Design Professional (DP)	Construction Professional (CP)	Commissioning Maintenance Agent (CMA)
POST-OCCUPANCY	1 - 2 MONTHS	**FINANCIAL CLOSEOUT** The financial closeout primarily focuses on reconciling and concluding the fiscal relationship between the school district and the OSFC. This process includes a comprehensive recap of the original project budget, any budget increases that were approved, the State share, the local share, and the interest earned on both the State and the district shares. All expenditures are recapped, including those for contracts, change orders, miscellaneous district expenses, and soft costs. Once the financial reconciliation is agreed to, a certificate of project completion is executed. Principal dollars remaining in the project construction fund are distributed to the State and school district in proportion of the original State and school district shares. Remaining interest earned on State and school district funds is returned to the State and deposited in the school district maintenance fund.											

A. PARTICIPANTS AND ROLES OF THE PARTICIPANTS IN THE EDUCATIONAL PLANNING PROCESS

In most school districts, the Board of Education is responsible for defining the educational mission / vision of the school district and creating learning environments that will meet the current and future needs of the students, parents, staff, teachers, administration, and community members. Although the Board of Education provides the directive to pursue a facility, securing input from all stakeholders has proven to be a vital step in the successful implementation of the school district's educational vision required to create a diversified curriculum strategy. Both a LEADERSHIP COMMITTEE and an EDUCATIONAL PLANNING COMMITTEE should be formed to complete the planning process. The role of the LEADERSHIP COMMITTEE is to guide, manage, endorse and supervise the planning process. The role of the EDUCATIONAL PLANNING COMMITTEE is to develop, by group consensus, educational planning concepts and educational specifications to support the school districts Mission, Vision, Goals, and Objectives. All members of the team and committee's should be familiar with the Ohio School Design Manual (OSDM) and be able to fulfill his/her responsibilities.

Every team member must understand and fulfill his or her responsibilities for the planning, design, and construction process to be successful. Fortunately, the team works together to be sure that everyone's voice is heard and decisions are made and implemented in a timely manner.

PARTICIPANTS AND ROLES MAY VARY BASED ON PROJECT DELIVERY METHOD SELECTED

SCHOOL DISTRICT REPRESENTATIVE(S) and STAKEHOLDERS (SD)

Responsibilities (examples):

Formation of a planning committee(s) and outline of the school district specific planning process as well as a planning schedule. Development of an educational mission and vision, guidance and oversight of a school district-specific educational plan.

Depending on the size of the school district and the complexity of the projects, school district representatives may include the Superintendent, Principals, and/or the school district's Curriculum Director, Facility Director, school district Technology Coordinator, Special Needs Director, Business Manager, Teachers, Students, and Board Member(s). The school district representative is responsible for representing and making decisions on behalf of the school district in communicating the educational mission, vision and goals throughout the process. Final decisions are the responsibility of the Board of Education.

Roles (examples):

- Develop the educational mission, vision, and goals of the School district.
- Creation of curriculum delivery model.
- Forming a LEADERSHIP COMMITTEE AND an EDUCATIONAL PLANNING COMMITTEE.
- Communication with learners, school district staff, administration, Board of Education, and community stakeholders of a desire to create a curriculum delivery model.
- Develop buy-in of learners, school district staff, administration, Board of Education, and community stakeholders of curriculum delivery.
- Working with an Educational Planner, Pre-Bond Design Professional, Design Professional, and OSFC Planners for assistance with creation of curriculum delivery model and planning concepts to support this model.
- Develop educational commissioning process.
- Develop staff development plan.

OSFC PLANNER (OSFC-P)

Responsibilities (examples):

Various Ohio School Facility Commission (OSFC) staff members provide comprehensive support to the project team. The assigned OSFC-P are an integral part of the educational planning team and will provide guidance regarding the educational vision and policies of the OSFC. Additional staff members with varying expertise will participate as needed and serve as information resources throughout the project.

Roles (examples):

- Assistance in creation of a learning environment with the LEADERSHIP COMMITTEE and EDUCATIONAL PLANNING COMMITTEE.
- Develop standard learning environment review process.
- Curriculum delivery model review and concurrence.

- Assist with the development of school districts design.
- Participation on both the LEADERSHIP COMMITTEE and EDUCATIONAL PLANNING COMMITTEE.
- Provide clarification and input of the OSFC mission, vision, and objectives.
- Provide OSDM clarification.

REGIONAL PROGRAM CONSULTANT (RPC)

Responsibilities (examples):

The RPC coordinates, manages, monitors, and plans the resources and schedule for the facilities assessment, and Master Facilities Plan for assigned school districts. For the projects included in the Expedited Local Partnership Program (ELPP or VFAP ELPP), the RPC reviews plans and specifications for OSDM compliance, reviews budget estimates prepared by the Design Professional (DP) and/or Construction Manager (CM), and provides various services during the construction phase.

Roles (examples):

- Coordination, management, monitoring, and scheduling of the Assessment Consultant (AC).
- Coordination, management, monitoring, and scheduling of the Enrollment Study Consultant (ESC).
- Coordination, management, and monitoring of the Master Facilities Plan.
- Design Manual compliance reviews.
- Budget estimate reviews.

ASSESSMENT CONSULTANT (AC)

Responsibilities (examples):

The AC assesses the condition of the school district's facilities, evaluates the overall building needs of the school district, estimates costs and assists in developing the Master Facilities Plan. The AC is hired and funded by the OSFC and works directly through the RPC with scheduling and report development. The Assessment report is presented to the school district in a "DRAFT" format for review, possible edits, and acceptance prior to developing the Master Planning.

Roles (examples):

- Assessment data collection.
- Assessment report compellation.
- Assistance with Master Facilities Plan.

ENROLLMENT PROJECTION CONSULTANT (EPC)

Responsibilities (examples):

The EPC develops and reports the most likely projected enrollment for the next ten years for assigned school districts. The following data is considered in developing the enrollment projections: historical enrollment of the school district, including special education enrollment; previously completed enrollment projections; grade level survival or transfer patterns; community school and open enrollment numbers; federal and school district census data to include population, household, and economic information; live birth data for the school district by zip code and municipality; housing development patterns and building permits for single-family and multi-family units, including historical permits for the last ten years; and maps of the school district. Career-Technical enrollment will be determined based on Commission guidelines (10 year historic enrollment). The school district enrollment data and projections are presented to the school district in a "DRAFT" format for review, possible edits, and acceptance prior to becoming the final data needed for Master Facilities Planning.

Roles (examples):

- Development of projected enrollment for the next ten years.
- Development and compellation of Enrollment study report.

PRE-BOND DESIGN PROFESSIONAL (PBDP)

Responsibilities (examples):

The PBDP is a licensed/registered architect hired by the school district prior to a school districts OSFC assessment work. The PBDP should provide leadership, expertise, and experience with review of the school districts assessment through the development of the school district master plan. The PBDP should be familiar with OSFC guidelines and policies and provide input and recommendations during this early facility planning. OSFC does not co-fund pre-bond services.

Roles (examples):

- Facility assessment assistance.
- OSFC assessment review and validation.
- Facilitate and assist school district in OSFC master planning development.
- Pre-bond development services.
- Site selection assistance.

EDUCATIONAL PLANNER (EP)

Responsibilities (examples):

The EP should provide leadership, expertise, and experience in planning an educational facility that will position the school, learners, staff, instructors, and administrators to meet and adapt to the ever-changing needs of the future. The EP should assist in facilitating the educational planning process and provide leadership in the development of the final education specifications until the point where the Design Professional completes the Schematic Design. The EP will provide input and oversight in the educational planning process.

Roles (examples):

- Assistance in facilitating creation of a learning environment with the LEADERSHIP COMMITTEE and EDUCATIONAL PLANNING COMMITTEE.
- Guide and assist the School district with the development of the curriculum delivery model.
- Guide and assist the School district with school planning concepts that meet the School district's Student Centered Learning goals.
- Provide leadership and facilitate the educational specifications planning and documentation process.
- Review, monitor, and guide the Program of Requirements (POR) and schematic design documentation process for concurrence with the school district's goals.

OSFC PROJECT MANAGER (OSFC-PM)

Responsibilities (examples):

An OSFC-PM is the primary interface for the school district, the CP, and the DP. The OSFC-PM accommodates the unique needs of the school district within the framework of OSFC policies and procedures.

Roles (examples):

- Primary interface for the school district, the CP, and the DP.
- Accommodates the unique needs of the school district within the framework of OFSC policies and procedures.

DESIGN PROFESSIONAL (DP) - (Agency CM) / CRITERIA ARCHITECT (CA) (Design Build)

Responsibilities (examples):

The DP is involved in providing input and oversight in the planning process. The DP is responsible for the schematic documents which are a diagrammatic representation of the Educational Specifications. The schematic documents will ultimately be used for the further development of construction documents used to construct the project.

Roles (examples):

- Assistance in creation of a learning environment with the LEADERSHIP COMMITTEE and EDUCATIONAL PLANNING COMMITTEE.
- Develop planning concepts to support the school district's mission and goals based on the educational specifications.
- Creative, task-appropriate physical facility development of schematic design to support School district's curriculum delivery.
- Participate in educational planning process with the LEADERSHIP COMMITTEE and EDUCATIONAL PLANNING COMMITTEE.

CONSTRUCTION PROFESSIONAL (CP)

Responsibilities (examples):

Provide budget and schedule support as early as the concept development, and schematic design phases. Provide parametric budget information to assist with early design decisions.

Roles (examples):

- Assistance in creation of a learning environment with the LEADERSHIP COMMITTEE and EDUCATIONAL PLANNING COMMITTEE.
- Assist Educational Planner in budget, estimate, and schedule development of the educational planning process.

COMMISSIONING MAINTENANCE AGENT (CMA)

Responsibilities (examples):

The CMA is hired by the school district to provide a single point responsibility to ensure efficiency of operation and performance of the building's major systems.

Roles (examples):

- Assistance and review in the early design stages of facilities major systems.
- Ensure efficiency of operation and performance of the facilities major systems.
- Produces the Maintenance Plan.
- Assists with building close-out, turn over, and systems operation manuals and education.

A. ASSESSMENT PROCESS

The development of a uniform and comprehensive assessment of a school district's facilities is central to CFAP, VFAP, ENP, FAP, and ELPP. The process is accomplished through an Assessment Consultant (AC) working with a sophisticated internet-based Assessment Tool.

The facility assessment report contains a variety of data about each of the district's buildings, such as: site acreage, current grade configuration, capacity, number of floors, number of teaching stations, total building square footage, and the dates of construction for the original building and any additions.

The AC reviews 23 building components and applies a funding level to each of these components in order to bring the existing condition or system(s) to the minimum level described within the Ohio School Design Manual (OSDM) standards. The assessment report will either indicate no work required, supplementing a system or component, or complete replacement of a system or component based upon age, condition, size, or non-existence.

The 23 systems or components assessed are:

A. HEATING SYSTEM
B. ROOFING
C. VENTILATION/AIR CONDITIONING
D. ELECTRICAL SYSTEMS
E. PLUMBING AND FIXTURES
F. WINDOWS
G. STRUCTURE
H. STRUCTURE WALLS AND CHIMNEYS
I. STRUCTURE: FLOORS AND ROOFS
J. GENERAL FINISHES
K. INTERIOR LIGHTING
L. SECURITY SYSTEMS
M. EMERGENCY/EGRESS LIGHTING
N. FIRE ALARM
O. HANDICAPPED ACCESS
P. SITE CONDITION
Q. SEWAGE SYSTEM
R. WATER SUPPLY
S. EXTERIOR DOORS
T. HAZARDOUS MATERIAL
U. LIFE SAFETY
V. LOOSE FURNISHINGS
W. TECHNOLOGY

Additionally, the facility assessment report contains the Council of Educational Planners International (CEFPI) facility appraisal review, report and summary. The purpose of the CEFPI appraisal form is to subjectively report on conditions of the facility within the following categories:

A. THE SCHOOL SITE
B. STRUCTURAL AND MECHANICAL FEATURES
C. PLANT MAINTAINABILITY
D. BUILDING SAFETY AND SECURITY
E. EDUCATIONAL ADEQUACY
F. ENVIRONMENT FOR EDUCATION

Within the assessment report each building is divided into separate buildings being the original building, any additions, any non-co-fundable spaces or any areas being auditoriums, board

offices, athletic only facilities, etc. The purpose of these divisions are to have separate data and separate funding for each in the event the facility master plan prescribes specific area removal or demolition as well as providing accurate co-fundable costs within the final master plan.

The funding and costs associated with each facilities assessment report includes construction/renovation costs, soft costs, and total project costs. The report will also provide information pertaining to hazardous material costs whether for renovation or building demolition.

The school district will be requested to provide floor plans and other information and to make Facilities Managers available to assist the AC in the evaluation of the facilities. The AC is funded by the Ohio School Facilities Commission (OSFC) and works directly through the Regional Planning Consultants (RPC). The school district will be contacted by the RPC whom will review the program, requirements, and process for the assessment work. The AC will work directly with the school district in physical facility assessment scheduling, data collection, interviews with facility personnel, principals, custodians, and others with direct knowledge of each of the facilities.

It is important for all parties to understand that the use of the facility assessment report is for the purpose of developing an estimated project cost and scope based on best available data. Conditions which are hidden or otherwise unknown may have an impact on the final project cost.

The assessment report is developed and presented in a DRAFT format for district review. The process and timeline provides review, revision (if appropriate) and acceptance before a FINAL assessment report is completed.

Refer to section 0052 for approximate durations for the facility assessment process.

An example and description of the facility assessment format is included on the following page.

The Summary includes inventory details about all the buildings that were assessed.

District:		**County:**	**Area:**
Name:		**Contact:**	
Address:		**Phone:**	
		Date Prepared:	
Bldg. IRN:		**Date Revised:**	

Current Grades	9-12	Acreage:	12
Proposed Grades	N/A	Teaching Stations:	31
Current Enrollment	395	Classrooms:	
Projected Enrollment	N/A		

Addition	Date	HA	Number of Floors	Current Square Feet
Mechanicsburg High	1934	no	2	7,425
	1950	no	3	26,460
	1957	yes	3	11,160
	1976	yes	2	13,770
				58,815

The Facility Assessment Summary indicates the rating of each of the 23 building systems.

Handicapped Access
Satisfactory
=2 Needs Repair
=3 Replacement
*Const P/S = Preset Scheduled Construction

CEFPI Appraisal Summary

Section	Points Possible	Points Earned	Percentage	Rating Category
Cover Sheet	-	-	-	-
1.0 The School Site	100	44	44%	Poor
2.0 Structural and Mechanical Features	200	109	55%	Borderline
3.0 Plant Maintainability	100	51	51%	Borderline
4.0 Building Safety and Security	200	97	49%	Poor
5.0 Educational Adequacy	200	82	41%	Poor
6.0 Environment for Education	200	88	44%	Poor
Commentary	-	-	-	-
Total	1000	471	47%	Poor

C=Under Contract

Renovation Cost Factor	98.73%
Cost to Renovate (Cost Factor applied)	$4,293,230.86

The Replacement Cost Per SF and the Renovate/Re ratio are only provided when this summary is requested from a Master Plan.

The CEFPI Appraisal is an instrument that yields information about the ability of the building to support the educational program.

Ratings:
1=Satisfactory
2=Needs Repair
3=Needs Replacement

		FACILITY ASSESSMENT	Rating	Dollar Assessment	C
[IMAGE]	A.	Heating System	1	$0.00	-
[IMAGE]	B.	Roofing	3	$148,2	
[IMAGE]	C.	Ventilation / Air Conditioning	3	$730,780.00	-
[IMAGE]	D.	Electrical Systems	3	$529,335.00	-
[IMAGE]	E.	Plumbing and Fixtures	3	$23,500.00	-
[IMAGE]	F.	Windows	3	$259,450.00	-
[IMAGE]	G.	Structure: Foundation	1	$0.00	-
[IMAGE]	H.	Structure: Walls and Chimneys	2	$2,000.00	-
[IMAGE]	I.	Structure: Floors and Roofs	1	$0.00	-
[IMAGE]	J.	General Finishes	2	$623,439.00	-
[IMAGE]	K.	Interior Lighting	2	$88,222.50	-
[IMAGE]	L.	Security Systems	3	$117,630.00	-
[IMAGE]	M.	Emergency/Egress Lighting	3	$29,407.50	-
[IMAGE]	N.	Fire Alarm	2	$73,518.75	-
[IMAGE]	O.	Handicapped Access	3	$44,890.75	-
[IMAGE]	P.	Site Condition	1	$0.00	-
[IMAGE]	Q.	Sewage System	1	$0.00	-
[IMAGE]	R.	Water Supply	1	$0.00	-
[IMAGE]	S.	Exterior Doors	1	$0.00	-
[IMAGE]	T.	Hazardous Material	3	$62,691.00	-
[IMAGE]	U.	Life Safety	3	$366,148.75	-
[IMAGE]	V.	Loose Furnishings	3	$235,260.00	-
[IMAGE]	W.	Technology	3	$165,858.30	-
-	X.	Construction Contingency / Non-Construction Cost	-	$848,044.71	-
Total				$4,348,456.26	

Each item on the summary is linked to a detailed description of the assessor's findings and recommendations

Estimated cost to fully renovate building before application of cost factor.

B. Roofing

Description: The existing roof membrane system was installed in 1989 and 1990. There were no significant problems observed with the roofs on any of the buidlings. However, all roofs are at least 10 years old.

Rating: 3 Needs Replacement

Recommendations: Replace membrane roofs.

Item	Cost	Unit	Whole Building	Mechanicsburg High School (1934) 7,425 ft²	Mechanicsburg High School (1950) 26,460 ft²	Mechanicsburg High School (1957) 11,160 ft²	Mechanicsburg High School (1976) 13,770 ft²	Sum	
Other: Membrane	$148,280.00	ump sum		Required				$148,280.00	replace membrane roofs $5.00 x 29656 SF
Sum:			$148,280.00	$148,280.00	$0.00	$0.00	$0.00		

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.

A. DEVELOP ENROLLMENT PROJECTION FOR A TYPICAL PRE-K-12 SCHOOL DISTRICT

An important component of the Ohio School Facilities Commission (OSFC) planning protocol is the development of student enrollment projections. Upon entering an Exceptional Needs Program (ENP), Classroom Facilities Assistance Program (CFAP), or Facilities Assessment Program (FAP), OSFC assigns an Enrollment Study Consultant (ESC) to develop the enrollment projections. The objective is to determine the number of students for which the buildings should be designed. The enrollment history of the school district is obtained through an online district questionnaire. District demographics such as live birth statistics, population information, housing starts, and survival rates are all combined to project the district's enrollment 10 years into the future.

B. DEVELOP ENROLLMENT STUDY FOR A CAREER-TECHNICAL SCHOOL

An important component of the OSFC planning protocol is the development of student enrollment projections. Upon entering the Vocational Facilities Assistance (VFAP ELPP) or Vocational Facilities Assistance Program (VFAP), the OSFC assigns an ESC to develop the enrollment projections. The objective is to determine the number of students for which the buildings should be designed. The enrollment history of the district is obtained through an online district questionnaire. Additional enrollment information is obtained from the Ohio Department of Education (ODE).

It is important to understand that the enrollment projection report is developed and presented in a DRAFT format for school district review. The process and timeline provides review, revision (if appropriate) and acceptance before a FINAL enrollment projection report is completed.

An example and description of the Enrollment Projection format is included on the following pages.

Refer to section 0052 for approximate durations for the enrollment projections and enrollment study.

C. ENROLLMENT PROJECTIONS FOR A PRE-K-12 SCHOOL

An Enrollment Projection Report will generally include the following information:

Historical Enrollment example:

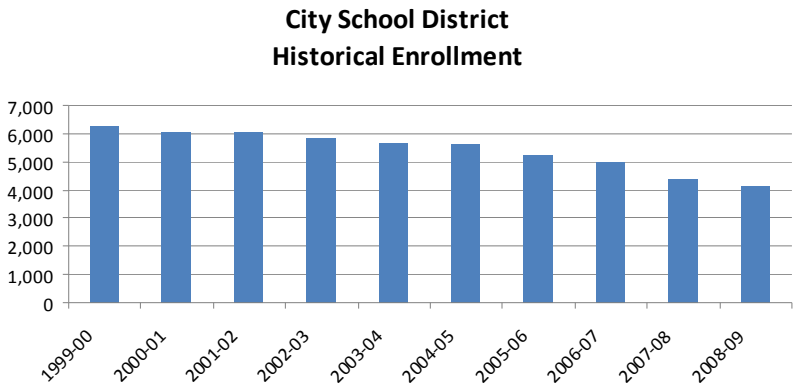
Over the past ten years, student enrollment in the _____ school district has decreased by 2,127 students in grades Pre-K – 12, including ungraded, special education, career-technical, and full-time JVS students. Total Pre-K - 12 enrollment for the 2008-09 school year was 4,126 students, including the full-time JVS students. The approximate percentages of mainstreamed special education students [Pre-K - 12] for the current school year are as follows:

- Pre-K-5 – 9%
- 6-8 – 11%
- 9-12 – 10%

The approximate percentages of self-contained special education students [Pre-K - 12] for the current school year are as follows:

- Pre-K-5 – 0%
- 6-8 – 0%
- 9-12 – 0%

This graph illustrates the school district's K- 12 enrollment history from 1999-00 through 2008-09.



The report itemizes historical enrollment by grade, by grade group, and by year.

Live Birth Data

Utilization of live birth data is recommended when projecting future enrollments. This provides a helpful overall trend, as well as a useful estimation of kindergarten enrollment five or six years in the future. Large bubbles in birth rates, either up or down, can also be planned for and anticipated by the school district.

Live Birth Count
1993-2007

Year	Municipality
1993	924
1994	860
1995	890
1996	927
1997	877
1998	867
1999	907
2000	905
2001	741
2002	674
2003	737
2004	662
2005	653
2006	720
2007	718

Source: Ohio Department of Health, Statistical Analysis Unit

DEMOGRAPHIC INFORMATION

Tables such as the following are developed to show important demographic information.

General Demographic Information

	County
Per Capita Income (1999)	$18,582
Median Household Income (2004)	$43,320
Persons Below Poverty (2004)	11.9%

Source: US Census

Total Population

	2000 Census	2007 Estimate
County	128,852	125,679
Township	14,680	11,441
City	49,346	49,675

Source: ODOD Office of Strategic Research

Several maps are generated to illustrate the data identified in the tables identifying population estimates and projections by age group, average household income, average family size, and average family income. Color coding on the maps indicated areas within the school district that may be increasing or decreasing at different rates.

HOUSING INFORMATION

Various tables are also developed to enumerate the likely growth in housing units in the district.

Building Permits Issued for Single Family Dwellings

Year	_____ Township # of Permits Issued	Village of _____ # of Permits Issued	Village of _____ # of Permits Issued	_____ Township # of Permits Issued	_____ County # of Permits Issued
1991	N/A	N/A	N/A	N/A	949
1992					1,302
1993					1,466
1994					1,520
1995					1,508
1996					1,858
1997					2,165
1998	48	2	9	130	2,516
1999	55	2	12	165	2,725
2000	40	4	12	136	2,353
2001	50	1	9	148	2,649
2002	51	7	8	216	2,650
2003	44**	1**	8**	239***	1,220*
Total	**288**	**17**	**58**	**1,034**	**24,881**

Source: SOCDS Building Permits Database; _____ County Building Inspection Department

_____ Township

Subdivision	Number of Lots	Section Number	Final Plat Year	Number of Zoning Permits Issued	Number of Lots Remaining
_____	29	1	1994	26	3
_____	19	1	1993	17	2
_____	1	2	1998	1	0
_____	11	3	1998	7	4
_____	1	3	2002	1	0
_____	4	4	2003	0	4
Total	65			52	13

Source: _____ Township Planning and Zoning

PROJECTED ENROLLMENT

Tables (by grade and by grade group) and graphs detail the projected enrollment for a 10-year period.

City School District
Projected Enrollment by Grade Group

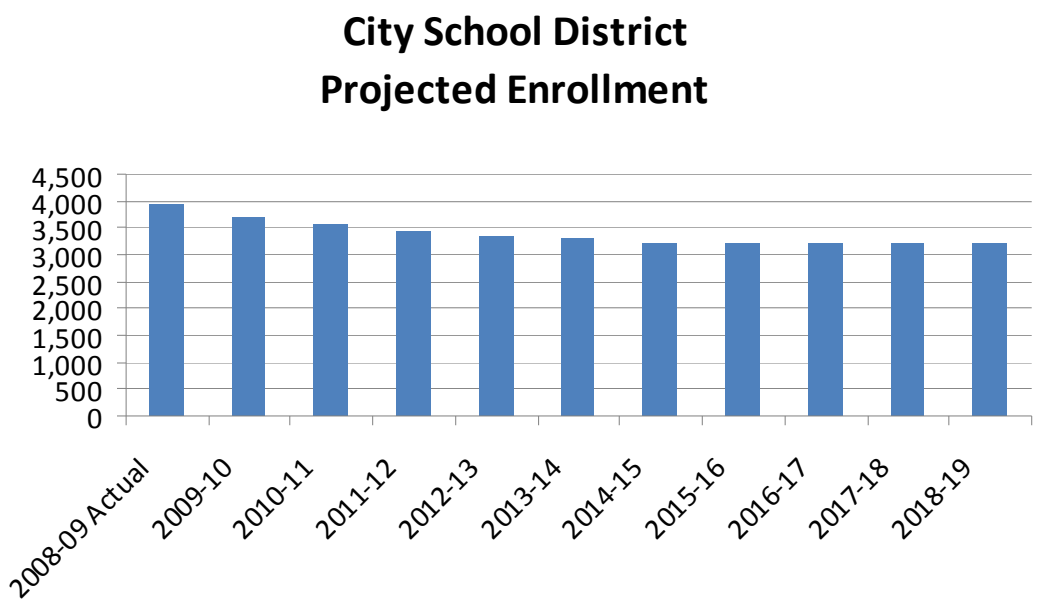
Grade	2008-09 Actual	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Pre-K (special needs) - 3	**1,371**	1,331	1,302	1,334	1,384	1,398	1,417	1,407	1,399	1,399	1,399
4 - 6	**835**	827	814	797	740	719	712	752	773	789	781
7 - 8	**630**	562	481	458	461	461	433	398	397	408	427
9 - 12	**882**	792	770	671	595	556	541	532	506	476	472
Pre-K - 12 Total	**3,718**	3,512	3,367	3,260	3,180	3,134	3,103	3,089	3,075	3,072	3,079
Special Education	**12**	12	12	11	11	11	11	11	11	11	11
Career Tech Comprehensive - Low Bay	**178**	148	149	131	125	110	95	90	91	91	85
Career Tech Comprehensive - High Bay	**52**	33	33	29	28	25	22	20	21	20	20
Grand Total	**3,960**	3,705	3,561	3,431	3,344	3,280	3,231	3,210	3,198	3,194	3,195

Source: DeJONG-HEALY

City School District
Master Planning Year Projected Enrollment

Grade	2013-14
Pre-K - 12 Total	3,079
Ungraded	0
Special Education	11
Career Tech Comprehensive - Low Bay	85
Career Tech Comprehensive - High Bay	20
Total	3,195

Source: DeJONG-HEALY



D. ENROLLMENT PROJECTIONS FOR A CAREER-TECHNICAL SCHOOL

An important component of the OSFC planning protocol is the development of student enrollment. Upon entering the VFAP ELPP or VFAP, the OSFC assigns an ESC to produce the enrollment report. The objective is to determine the number of students for which the buildings should be designed. The enrollment history of the district is obtained through an online school district questionnaire. Additional enrollment information is obtained from the ODE.

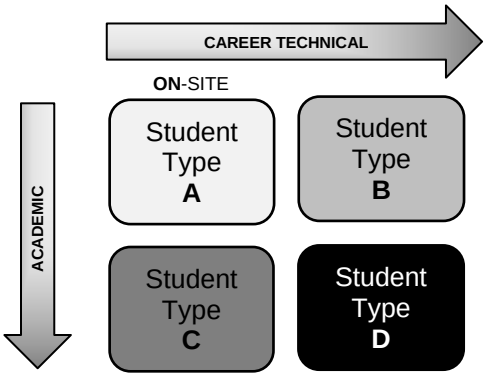
The following "Student Type" matrix illustrates the way that career-technical students are assigned to categories and enrollment is apportioned among the various secondary school types:

Type A – Comprehensive Career-Technical Student
Spends entire day at home high school attending academics and career-technical courses on single campus

Type B – Career-Technical Off-Site Student
Attends academic courses at home high school and attends career-technical courses at another location, i.e. JVS, comprehensive high school in another district, etc.

Type C – Career-Technical On-Site Student
Attends career-technical courses at home high school and attends academics at another location, i.e., high school in another district or high school within same district.

Type D – Full-Time Career-Technical Student
Attends both academic and career-technical courses at a site other than the home high school.



Student Type E – does not attend Career-Technical courses at all
The following tables are to clarify the connection/labeling between the Enrollment Project report and the Career Tech PORs. Note that when the school is a Comp HS, the emphasis is on the location of the CT student. When the school is a JVS or Coop school, the emphasis is on the location of the Academic student.

For example:

- Type **B** – A CT Off-site Comp HS student is a student that has academic programs on-site and CT programs off-site.
- Type **B** – An Acad On-site JVS student is a student that has academic programs on site and CT programs off-site.

Comp HS School - Relates to location of CT Students	
Type A - Full time	Acad On-site + CT On-site of Comp HS
Type B - CT Off-site	Acad On-site + CT Off-site of Comp HS
Type C - CT On-site	Acad Off-site + CT On-site of Comp HS

JVS/Compact School - Relates to location of Academic Students	
Type A - Full time	Acad On-site + CT On-site of JVS
Type B - Acad On-site	Acad On-site + CT Off-site of JVS
Type C - Acad Off-site	Acad Off-site + CT On-site of JVS

The process closely resembles the process used for the K-12 districts. In the process, the 10-year historical enrollment of all the associate districts of the JVSD are collected. Based on the historical enrollment and birth data, a 10-year projection for the combined associate districts is provided.

The JVSD will be asked to provide one year of data by program, in addition they will also be asked to provide 9 years of historical enrollment for 11th and 12th grade full-time and half-time students.

JVSD Historical Enrollment

	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Full Time 11th	256	309	283	263	323	376	343	338	369	355
Full Time 12th	238	235	283	236	271	265	298	262	283	303
Full Time Total	494	544	566	499	594	641	641	600	652	658
Half Time 11th	0	0	0	9	40	6	23	28	28	49
Half Time 12th	30	25	21	49	42	44	35	54	59	62
Half Time Total	30	25	21	58	82	50	58	82	87	111
Grand Total	524	569	587	557	676	691	699	682	739	769

Source: JVSD

High Bay Programs

		2011-12
High Bay Grand Total	Full-time 11th	117
	Full-time 12th	112
	Full-time Total	**229**
	Half-time 11th	23
	Half-time 12th	7
	Half-time Total	**30**

Source: JVSD

Low Bay Programs

		2011-12
Low Bay Grand Total	Full-time 11th	215
	Full-time 12th	199
	Full-time Total	**414**
	Half-time 11th	20
	Half-time 12th	35
	Half-time Total	**55**

Source: JVSD

The percentage of 11th and 12th students who attend the JVSD from the associate districts will be determined and a projection ratio developed. This ratio will then be applied to the projected enrollment for 11th and 12th grade of the associate districts for each of the 10-years, resulting in a 10-year projection for the JVSD.

JVSD Projected Enrollment

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Full Time 11th	363	361	381	378	415	398	408	418	390
Full Time 12th	285	291	289	305	303	333	319	327	335
Full Time Total	648	652	670	683	718	731	727	745	725
Half Time 11th	36	36	38	38	42	40	41	42	39
Half Time 12th	59	61	60	63	63	69	66	68	70
Half Time Total	95	97	98	101	105	109	107	110	109
TOTAL	743	749	768	784	823	840	834	855	834

Source: DeJONG-HEALY

The report will contain the associate districts historical and projected enrollment, birth data, the JVSD historical and projected enrollment, and master planning year. Breakdowns will still be provided for high and low bay programs, full-time and half-time students, and students with special needs.

JVSD
Master Planning Year Enrollment - 2020-21

Full-time Low Bay Enrollment	468
Full-time High Bay Enrollment	257
Half-time Low Bay Enrollment	76
Half-time High Bay Enrollment	33
Total	834

Source: DeJONG-HEALY

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.

Since the inception of the Ohio School Facilities Commission (OSFC) and development of the Ohio School Design Manual (OSDM), hundreds of successful educational facilities have been planned, designed, constructed and occupied by Ohio school children. The OSDM has and will continue to provide guidance for the planning and development of Ohio educational facilities.

OSFC recognizes the impact of educational delivery models on the planning, design and construction of school facilities. One of its goals is to build facilities responsive to meeting the needs of teaching and learning in the 21st century. As we continue to define what a 21st century learning environment is, we need to develop tools and processes to adapt to the evolving programs, services, and delivery methods and continue to refine current and future definitions.

During each annual update of the OSDM the OSFC reaches out to many topic experts, stakeholders, educational leaders, enrollment projection consultants, educational planners, design professionals, construction professionals, and OSFC planners to gather, incorporate, and define information to develop this EDUCATIONAL LEARNING ENVIRONMENTS section within the EDUCATIONAL FACILITY PLANNING GUIDE as a part of the OSDM.

The environments defined within this section - "Educational Learning Environments" and the Educational Facility Planning Guide define three example approaches to learning and the physical learning environments that house these approaches. The three example environments within this section and the Educational Facility Planning Guide are "Traditional Learning Environments (TLE)", "Student Centered Learning Environments (SCLE)", and "Blended Learning Environments (BLE)". These three environments are <u>only examples</u> and are included as such only. It should be understood that although these three different example approaches to learning environments are defined separately <u>every</u> successful physical learning environment will contain approaches, concepts, and attributes contained within each different learning environment type as well as approaches, concepts, and attributes that are developed uniquely by each school district to serve their specific needs.

Learning environments containing multiple approaches, concepts, and attributes that reflect a school districts specific needs should be referred to as High Performance Learning Environments (HPLE's).

Following is an overview of each example approach to the learning environment.

TRADITIONAL LEARNING ENVIRONMENTS (TLE's)

TLE's are those typically associated with classrooms of 25 students and 1 teacher. These learning environments are instructor-centered and provide for an instructor-led approach where the student and instructor meet in a common location for a specific duration of time. The TLE model focuses on transmitting the teacher's knowledge to the student. The student then transmits (by quizzes and testing) the information received back to the teacher and receives acknowledgement of his/her understanding of the subject.

In addition to the common location for students and instructors to meet, successful adoption of small group rooms, student and teacher collaboration rooms, and the use of traditional spaces like commons, cafeterias, media stack areas, and gymnasiums should be studied as potential educational spaces. A TLE can and should be planned with learning spaces beyond the traditional classroom. Non-traditional learning areas have been successfully introduced into existing facilities as school districts reconfigure space as a response to learning models. Additionally, through an educational specification development process school districts have identified and defined non-traditional spaces and their need within traditional learning environments and have successfully created these spaces through existing facility reconfigurations, renovations and additions.

A. OSFC and TRADITIONAL LEARNING ENVIRONMENTS (TLE)

These planning concepts **may** be implemented by the school district to assure that the instructional mission, vision, goals, and objectives of the school district will be met today and into the future. The following section is intended to be an **optional** choice for Ohio school districts in the development of their physical facilities as a response to TLE's. It is strongly recommended that a school district desiring an OSFC co-funded TLE facility complete each step in the 0120 Process section. As with all sections in the OSDM, this TLE section will continue to be developed over time, respond to educational trends, and be updated annually.

An overview of the planning process is included in section 0120 Process. Spaces of each program area are further defined in Volume 2 - Chapter 4, Elementary School; Chapter 5, Middle School; and Chapter 6, High School. The deliverable of a TLE planning process is a Program of Requirements (POR) workbook. The POR workbook indicates the number of students in each facility, indicated as elementary school, middle school, and/or high school enrollment along with the co-fundable area developed. The area developed is based upon the grades served and the number of students in each grade served and is included as a “live” excel workbook on the OSDM CD. The workbook contains individual worksheets for each program area along with several examples of various enrollments. The worksheets are used to create quantities of room types and give choices to the school district in the division of program area within the facility. There are guidelines, notes, and automatic formulas to aid in the development of the POR. Refer to these chapters for specific requirements. With the aid of the educational specifications, the school district and its Design Professional (DP) can tailor the facility to meet the needs of the school district by entering the appropriate quantities for each space in the interactive bracketing POR spreadsheets.

B. TLE MODELS

Although TLE's are associated with 1:25 instructor to student ratio school districts, educational planners, and design professionals are encouraged to provide educational spaces that not only support but provide for the flexibility for a facility to move towards the following attributes.
TLE's should provide and be easily adapted to:

- support self-directed learning
- provide for individual and small group instruction
- encourage problem-solving for individuals and teams
- promote socializing among participants
- encourage learner discovery
- allow instructor's guiding learning
- provide ubiquitous technology and media access in ALL forms
- support on-line learning and discovery
- allow for continuous assessment of learners knowledge and mastery level

C. CHARACTERISTICS OF EDUCATIONAL INSTRUCTION IN TLE's

The basis of the traditional (POR) within the OSDM identifies specific spaces and quantities of spaces. Within a TLE it is possible to creatively provide most spaces identified within an SCLE and BLE. As most school districts will find through the educational specification development a successful TLE's will contain a variety of spaces such as;

- combinations of traditional POR spaces

along with;

- collaborative large group spaces
- project spaces
- niche spaces for individuals and small groups
- individual study spaces and work stations with storage
- science / discovery areas
- break-out spaces
- reconfigurable labs for science, art, and project activities
- learner display / formal - informal presentation spaces
- combined music, art, performance and dance labs or studios
- wellness and physical education beyond traditional contest basketball only gymnasium spaces
- outdoor learning spaces
- varied food service and dining areas throughout the entire facility
- common spaces serving as multi-purpose and multi-function spaces
- welcoming entries
- indoor and outdoor connectivity
- facilitator spaces
- school and community connectivity and shared spaces

STUDENT CENTERED LEARNING ENVIRONMENTS (SCLE)

Our global economy has and continues to be transformed from an industrial to an information-based system in which lifelong learning and innovation are central for success. Learning environments that reflect and support information-based systems, defined as SCLE's, focus on and support the principles and activities that facilitate learning.

The way in which a space is designed shapes and supports the learning that happens in that space. SCLE's are student/learner-centered and focus on collaborative and independent learning, critical thinking, oral and written communication, use of technology, and project based curriculum. It is interdisciplinary, engaging, relevant, interesting, inquiry based, and student centric/mentor facilitated. Spaces should fuse the three R's with the four C's (collaboration, communication, critical thinking, and creativity).

Simply put, SCLE's provide for engagement and interaction, teamwork and learning, and concurrent interdisciplinary themes.

While the role of "teacher" is constantly changing and being redefined within each school district, so should the built environment. An objective in a SCLE is its ability to support shifts in teaching methods like team based teaching, project based instruction, E-learning, and self-learning while also being agile, and instantly flexible. SCLE's encourage lifelong learning, and support group, individual, team, and collaborative activities. Without this shift in teaching methods, an SCLE facility will be less likely to succeed.

A. OSFC and STUDENT CENTERED LEARNING ENVIRONMENTS (SCLE)

In September 2009, the OSFC charged the Executive Director with the task of examining concepts associated with building 21st Century Schools. The charge included the task of providing a clear definition of a 21st Century Learning Environment's physical characteristics and the development of a strategic plan to achieve the building of 21st century SCLE.

This section titled **"STUDENT CENTERED LEARNING ENVIRONMENTS (SCLE)"** is intended to be used in conjunction with the OSDM to provide guidance for the development of a 21st century SCLE. These planning concepts **may** be implemented by the school district to assure that the instructional mission, vision, goals, and objectives of the school district will be met today and into the future. SCLE's are intended to be an **optional** choice for school districts in the development of their physical facilities as a response to 21st Century Learning Environments. A school district desiring pursuance of an OSFC co-funded SCLE facility will be **required** to follow and complete each step in the 0120 Process section. As with all sections in the OSDM, this SCLE section will continue to be developed over time, respond to educational trends, and be updated annually.

B. STUDENT CENTERED LEARNING MODELS

Student centered learning is an approach to education focusing on the needs of the students, rather than those of others involved in the educational process. SCLE's are student-centered and focus on collaborative and independent learning, critical thinking, oral and written communication, ubiquitous use of technology, and project based curriculum. SCLE's should provide for engagement and interaction, teamwork, and concurrent interdisciplinary themes. Student centered learning models promote various modes of diverse learning styles, thereby accommodating the varied learning styles of students. Student centered learning models strengthens student motivation, promotes peer communication, reduces disruptive behavior, builds student-instructor relationships, promotes discovery and active learning, and shifts the responsibility for one's own learning.

This learning model approach has many implications for the design of the curriculum, course content and interactivity of courses as well as the physical facility.

C. CHARACTERISTICS OF EDUCATIONAL INSTRUCTION IN SCLE MODELS

Physical spaces should fuse the three R's (reading, writing and arithmetic) with the four C's (collaboration, communication, critical thinking, and creativity).

Successful SCLE's will contain a variety of spaces such as;

- collaborative large group spaces
- project spaces
- niche spaces for individuals and small groups
- individual study spaces and work stations with storage
- science / discovery areas
- break-out spaces
- reconfigurable labs for science, art, and project activities
- learner display / formal - informal presentation spaces
- combined music, art, performance and dance labs or studios
- wellness and physical education beyond traditional contest basketball only gymnasium spaces
- outdoor learning spaces
- varied food service and dining areas throughout the entire facility
- common spaces serving as multi-purpose and multi-function spaces
- welcoming entries
- indoor and outdoor connectivity
- facilitator spaces
- school and community connectivity and shared spaces

These spaces should bring students and facilitators together, ensuring that the environment promotes, rather than constrains, learning.

BLENDED LEARNING ENVIRONMENTS (BLE's)

BLE's reflect and support information-based systems, which teach information gathering, analyzing data and critical thinking. Students will be able to acquire information, analyze data, and act on their newly created knowledge.

Blended Learning combines the effectiveness and socialization opportunities of the physical facility with the technologically enhanced active learning possibilities of the online and digital environment. Blended learning should be approached not merely as an idea, but rather as a fundamental redesign of an instructional delivery model with the following characteristics:

- A shift from lecture to learner-centered instruction in which learners become active and interactive. This shift should apply to the entire course, including face-to-face contact sessions.
- Increase in interaction between learner-instructor, learner-learner, learner-content, and learner-outside resources.
- Integrated formative and summative assessment mechanisms for learners and instructor.

A. OSFC and BLENDED LEARNING ENVIRONMENTS (BLE)

In September 2012, section 3301.079(J)(1) and 3302.41 of the Ohio Revised Code (ORC) became effective. Section 3301.079 defines "Blended Learning as the delivery of instruction in a combination of time in a supervised physical location away from home AND online delivery whereby the student has some element of control over time, place, path, or pace of learning." Section 3302.41 stipulates the use of a blended learning model. In response to the law changes and the Ohio Department of Education's requirement to revise operating standards on BLE's, The OSFC examined concepts associated with building BLE's and the physical space implications. The following BLE model definition and physical characteristics are in response to the law changes to provide a clear definition of a BLE's physical characteristics and the development of an educational specification to achieve the building of BLE's.

This section titled **"BLENDED LEARNING ENVIRONMENTS (BLE)"** is intended to be used in conjunction with the Ohio School Design Manual to provide guidance for the development of a BLE. These planning concepts **may** be implemented by the school district to assure that the instructional mission, vision, goals, and objectives of the school district will be met today and into the future. The following section is intended to be an **optional** choice for school districts in the development of their physical facilities as a response to BLE's. A school district desiring pursuance of an OSFC co-funded BLE facility will be **required** to follow and complete each step in the 0120 Process section. As with all sections in the OSDM, this section will continue to be developed over time, respond to educational trends, and be updated annually.

B. BLENDED LEARNING ENVIRONMENT MODELS

Blended learning is defined as any time a student learns at least in part at a supervised brick and-mortar location away from home and at least in part through online delivery with some element of student control over time, place, path, and/or pace. Concepts within a Blended Learning model can include removal of a traditional grade level system to emphasis of subject mastery, changing student teacher ratios to a maximum of 1:125, reducing traditional school day durations, reduction in the minimum school year.

While Blended Learning is still in its infancy, six distinct delivery models have evolved. As delivery models vary, so does each school district and its distinct solution and adaptation of a BLE. The delivery models below are merely examples of models that should be studied, redeveloped, and redefined, so that each school district-specific Blended Learning Model delivery accommodates its needs.

1. Face-to-Face Model
   - Instructors deliver most of their curriculum face-to-face. Online learning is used on a case-by-case basis to supplement or remediate content, often in the brick and mortar facility.
2. Rotation Model
   - Within a given course, learners rotate on a fixed schedule between learning online in a one-to-one, self-paced environment and sitting in a classroom with a traditional face-to-face instructor. Within a Rotation Model there are 4 distinct models defined as;
     - o Station-rotation model

       Within a given course or subject students rotate on a fixed schedule among learning modalities in a learning area. The rotation includes at least one station for online learning.
     - o Lab-rotation model

Within a given course or subject students rotate on a fixed schedule among locations on the traditional campus. At least one of these spaces is a learning lab for predominantly online learning, while other areas house other learning modalities.

- o Flipped-classroom model
  Within a given course or subject, students rotate on a fixed schedule between face-to-face teacher-guided practice on campus during the standard school day and online delivery of content and instruction of the same subject from a remote location after school.
- o Individual-rotation model
  Within a given course or subject students rotate on an individually customized, fixed schedule among learning modalities, at least one of which is online learning.

3. Flex Model
   - An online platform delivers most of the curriculum. Instructors provide on-site support on an as-needed basis through in-person tutoring sessions and small group sessions.
4. On-line Lab Model
   - An online platform delivers the entire course in a brick-and-mortar facility. These programs usually provide online instructors. Often learners that participate in an online-lab model also take courses in a traditional facility.
5. Self-blend Model
   - Learners choose to take one or more courses online to supplement their traditional facility curriculum. The online learning is always remote, but the traditional learning is in a brick-and-mortar facility.
6. On-line Model
   - Involves an on-line platform and instructor that delivers the entire curriculum. Students work remotely for the most part with occasional face-to-face check-ins. Extracurricular activities can be offered in a brick-and mortar facility.

C. CHARACTERISTICS OF EDUCATIONAL INSTRUCTION IN BLE's

Blended Learning represents a shift in instructional strategy. Just as on-line learning represents a fundamental shift in the delivery and instructional model of distance learning, blended learning offers increased levels of integration with computer mediated instructional elements into the traditional facility learning and face to face learning environments.

BLE's should:

- support self-directed learning
- provide for individual and small group instruction
- encourage problem-solving for individuals and teams
- promote socializing among participants
- encourage learner discovery
- allow instructor's guiding learning
- provide ubiquitous technology and media access in ALL forms
- support on-line learning and discovery
- allow for continuous assessment of learners knowledge and mastery level

BLE's share the same requirements of spaces as SCLE's and should contain a variety of spaces such as:

- collaborative large group spaces
- project spaces
- niche spaces for individuals and small groups
- individual study spaces and work stations with storage
- science / discovery areas
- break-out spaces
- reconfigurable labs for science, art, and project activities
- learner display / formal - informal presentation spaces
- combined music, art, performance and dance labs or studios
- wellness and physical education beyond traditional contest basketball only gymnasium spaces

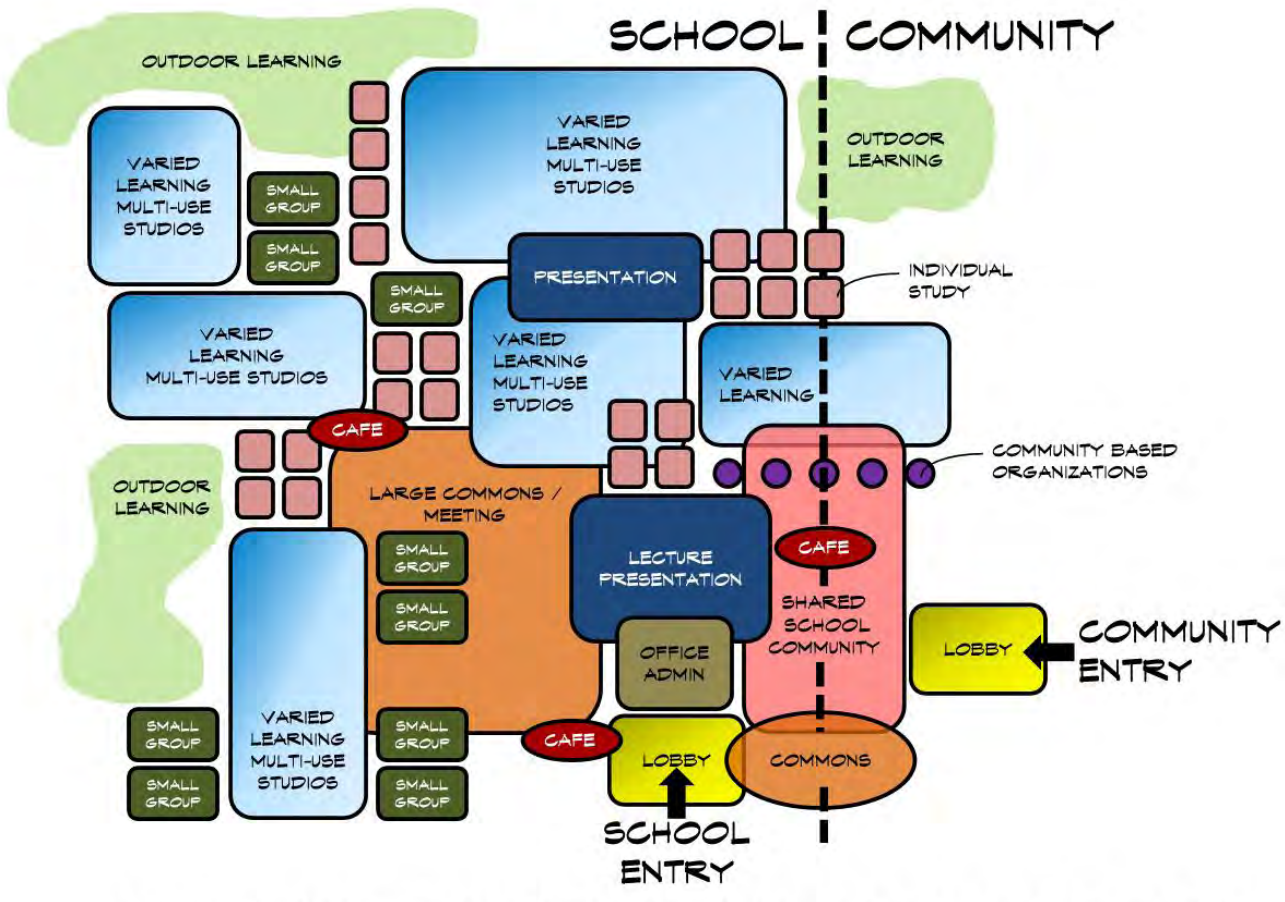
- outdoor learning spaces
- varied food service and dining areas throughout the entire facility
- common spaces serving as multi-purpose and multi-function spaces
- welcoming entries
- indoor and outdoor connectivity
- facilitator spaces
- school and community connectivity and shared spaces

It should be understood that no “one size fits all” solution exists and every solution developed by each school districts planning team will be unique, align with the specific school districts educational specifications, and, most importantly, support the learning process of its students while being flexible to adapt to future changes.

It should also be understood that these examples are only examples and should be thoroughly explored by school districts during their planning process along with additional concepts and examples that may be developed and created through the planning process.

Spaces within ALL learning environments should bring students and facilitators together, ensuring that the environment promotes, rather than constrains, learning.

Below is an example diagram of an "Educational Learning Environment" containing varied sized spaces, varied functions, instant flexibility, and the ability for learning to occur in all spaces and sample relationships to each other.



THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.

A. DESCRIPTION

Our global economy has and continues to be transformed from an industrial to an information-based system in which lifelong learning and innovation are central for success. Learning environments that reflect and support information-based systems focus on how students learn and support the principals and activities that facilitate learning.

The way in which a space is designed shapes and supports the learning that happens in that space. Successful learning environments are learner-centered and focus on both collaborative and independent learning, critical thinking, oral communication, written communication, use of technology, and project based curriculum based upon a physical facility that is interdisciplinary, engaging, relevant, interesting, inquiry based, and learner centric / mentor facilitated.

Simply put learning environments provide for engagement and interaction, teamwork and learning, and concurrent interdisciplinary themes.

While the role of “teacher” is constantly changing, shifting, and being redefined within each school district, so is the built environment. An objective in successful learning environments is the ability to support shifts in teaching methods like team based teaching, and project based instruction while also being agile, instantly flexible, encourage lifelong learning, and support group, individual, team, and collaborative activities.

Successful learning environments will contain a variety of spaces such as;

- collaborative large group
- project areas
- individual small group
- individual study spaces and work stations with storage
- break-out areas
- quiet rooms
- reconfigurable labs for science, art, and project activities
- learner display areas
- combined music, art, performance and dance labs or studios
- wellness and physical education beyond traditional contest basketball only gymnasiums
- varied food service and dining areas throughout the entire facility
- common spaces serving as multi-purpose and multi-functional
- welcoming entries
- indoor and outdoor physical and visual connectivity
- niche spaces for individuals and small groups
- facilitator areas
- strong school and community connectivity with shared spaces
- traditional library and media center space functions available anywhere, all of the time

These spaces should bring learners and instructors together, ensuring that the environment promotes, rather than constrains, learning.

B. EDUCATIONAL CONCEPTS

As we have come to understand more about learners, how people learn, and technology, our notions of effective learning spaces have changed. Increasingly, those spaces are flexible and networked, bringing together formal and informal activities in a seamless environment that acknowledges that learning can occur anyplace, at any time, in either physical or virtual spaces.

Educational spaces are themselves agents for change. Changed spaces can affect educational practice. Learning can occur in classrooms (formal learning); other times it results from unexpected interactions among individuals (informal learning). Spaces that provide experiences, stimulate the senses, encourage the exchange of information, and offer opportunities for rehearsal, feedback, application, and transfer - will most likely support learning and allow any space within the facility, campus, and/or school district to become a learning environment.

C. PLANNING ATTRIBUTES

1. MINIMUM PRE-REQUISITES (ATTRIBUTES)

Learning environments should be considered holistically. While each learning environment will differ, the following **MINIMUM PREREQUISITE ATTRIBUTES MUST** be incorporated. Learners need to move seamlessly from large group instruction to small-group collaboration to independent study to formal presentation to outdoor environments with ubiquitous access to technology. The activities of reading, writing, research, sharing, investigating, analyzing, performing, introspection, and kinesthetics should be accommodated thoughtfully within the "learner's place."

- **AGILE / INSTANTLY FLEXIBLE**
  Learners should be able to quickly change from listening to one instructor (traditional "Chalk and Talk" lecture or demonstration) to working in teams to working independently. While specialized spaces for each kind of activity can accommodate each kind of work, the flow of activities is often immediate. Spaces need to be capable of quick reconfiguration to support different kinds of activity, movable tables and chairs, movable partitions, and movable casework and furnishings are a few examples. Additionally, spaces should be designed with building systems that allow the ability to reconfigure spaces with minimal costs.

- **COMFORT**
  Individual seating must take into account different body sizes and the periods of time learners need to occupy seating. Varying types of movable and reconfigurable seating and lounging will provide comfort for varying types of learners. Discomfort makes a compelling distraction to learning. Areas should provide surfaces for writing and supporting computers, books, and other materials. Natural lighting, day lighting and natural ventilation as well as controls should be available to occupants to customize the comfort of spaces dependent on the current activity.

- **AMBIANCE**
  Learners yearn for color, controlled natural and task-appropriate lighting, and interesting room shapes and configurations. Spaces with multiple and accessible levels help to create interest and attract learners and mentors. The ability of spaces to attract learners will be the most successful environments for learning. Provide interior and exterior views and vistas to create variety.

- **TECHNOLOGY / CONNECTIVITY**
  Collecting, analyzing, displaying, and disseminating knowledge typically involves technology. Learning environments require seamless, flexible technology. As technology changes, smaller mobile devices will travel with users, who will expect wireless environments, the capacity to network with other devices and display vehicles, as well as ample access to power. Learning environments will need flexible plug-and-play capabilities based upon the current configuration of the space. Technology should be as transparent as the pencil and paper were in the 1950's. Technology should be something you use, not something you do.

- **PLACES**
  Implications for space planning should include the whole facility, campus, or school district as a learning place rather than emphasizing traditional classrooms. Provide universal flexible places for discussion and study. All spaces should fuse the three R's with the four C's (collaboration, communication, critical thinking, and creativity).

- **INTEGRATED SUSTAINABILITY**
  Solar, rain harvesting, recycling, natural ventilation, day-lighting, edible gardens, and LEED strategies should be integrated into the facility and become part of the diversified curriculum strategies.

2. EXAMPLE PLANNING CONCEPTS

While each learning environment will differ, the following **EXAMPLE PLANNING CONCEPTS** identified under each **ATTRIBUTE MAY** be incorporated.

- ***ATTRIBUTE***
  Example planning concepts

- **AGILE / INSTANTLY FLEXIBLE**
  Movable casework
  Enhanced operable walls
  Flexible, comfortable spaces
  Large doors (garage doors) to convert and connect spaces quickly
  Large view window partitions to encourage collaboration and provide supervision
  Interactive white boards
  Immediate access to information
  Outdoor seating areas
  Areas to promote fitness
  Connection from indoor to outdoor spaces and views
  Overhead power and services in lab and project areas for immediate flexibility
  Varied food service and dining areas in size and location

- **COMFORT**
  Movable casework
  Enhanced operable walls
  Flexible, comfortable spaces
  Various types of seating / furniture
  Proper ventilation and temperature control
  Adequate variable lighting
  Large doors (garage doors) to convert and connect spaces quickly
  Large view window partitions to encourage collaboration and provide supervision
  Outdoor seating areas
  Areas to promote fitness
  Connection from indoor to outdoor spaces and views
  Varied food service and dining areas in size and location

- **AMBIANCE**
  Visual connection between spaces and the outside
  Sound transmission and acoustical control
  Soft materials
  Enhanced operable walls
  Multiple accessible levels
  Flexible, comfortable spaces
  Large doors (garage doors) to convert and connect spaces quickly
  Large view window partitions to encourage collaboration and provide supervision
  Student display areas
  Student work walls
  3D display areas
  Outdoor seating areas
  Connection from indoor to outdoor spaces and views
  Overhead power and services in lab and project areas for immediate flexibility
  Campus wireless access
  Varied food service and dining areas in size and location

- **TECHNOLOGY / CONNECTIVITY**
  Interactive projectors
  Ubiquitous access to technology
  Immediate access to information
  Overhead power and services in lab and project areas for immediate flexibility
  Campus wireless access

- **PLACES**
  Flexible, comfortable spaces
  Large doors (garage doors) to convert and connect spaces quickly
  Large view window partitions to encourage collaboration and provide supervision
  Student display
  Student work walls
  Interactive projectors
  3D display areas
  Outdoor seating areas
  Connection from indoor to outdoor spaces and views

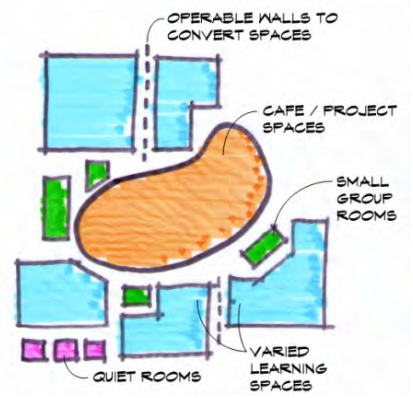
- **INTEGRATED SUSTAINABILITY**
  Large doors (garage doors) to convert and connect spaces quickly
  Outdoor seating areas
  Connection from indoor to outdoor spaces and views
  On-site energy production and inclusion into curriculum
  Storm water management and preservation and inclusion into curriculum
  Controlled natural lighting
  On site recycling
  Water conservation and inclusion into curriculum

EXAMPLE DIAGRAMS with ATTRIBUTES and PLANNING CONCEPTS

1. **COLLABORATIVE LARGE GROUP SPACES / PROJECT SPACES/ INDIVIDUAL SMALL GROUP SPACES / INDIVIDUAL STUDY SPACES / BREAK-OUT SPACES / QUIET ROOMS**

ATTRIBUTES
- Flexibility
- Comfort
- Ambiance
- Technology / Connectivity
- Places

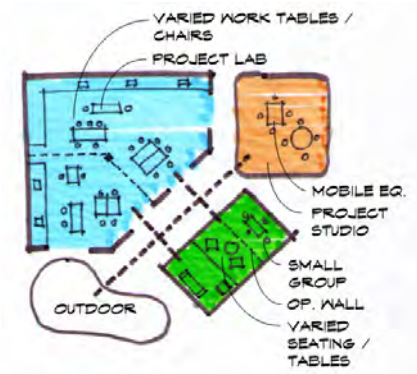
PLANNING CONCEPTS
- Varied in design
- Flexible
- Small and large
- Reconfigurable
- Soft and hard seating



2. **RECONFIGURABLE LABS (SCIENCE, ART, PROJECT)**

ATTRIBUTES
- Flexibility
- Comfort
- Ambiance
- Technology / Connectivity
- Places

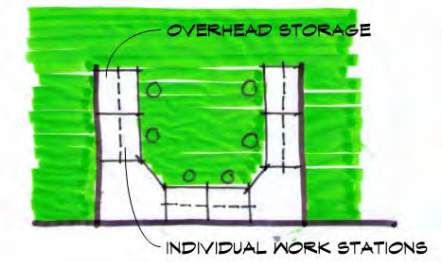
PLANNING CONCEPTS
- Varied movable equipment (tables, desks, chairs, storage)
- Overhead power and services for quick reconfiguration



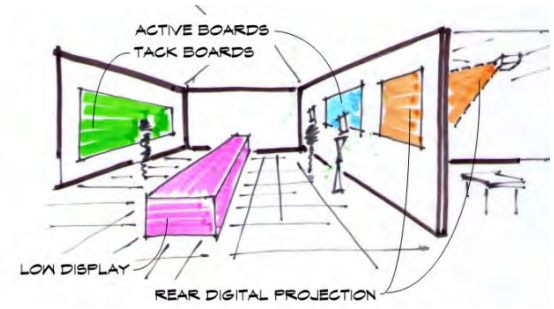
3. **INDIVIDUAL LEARNER WORK STATION WITH STORAGE**

ATTRIBUTES
- Flexibility
- Comfort
- Ambiance
- Technology / Connectivity
- Places

PLANNING CONCEPTS
- Single use work stations with personal storage
- Campus wireless access



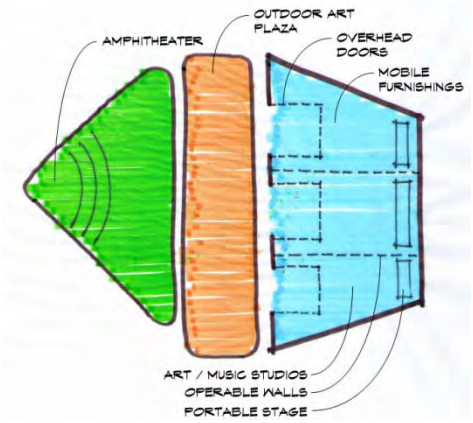
4. LEARNER DISPLAY SPACE



ATTRIBUTES
- Flexibility
- Comfort
- Ambiance
- Technology / Connectivity
- Places

PLANNING CONCEPTS
- Provide for throughout entire facility
- Tackable surfaces
- 3D display (wall, floor, low)
- Digital display screens (front and rear)
- Active boards
- Island display / movable, flexible work zones

5. COMBINED ARTS LAB (MUSIC, ART, PERFORMANCE, DANCE)



ATTRIBUTES
- Flexibility
- Comfort
- Ambiance
- Technology / Connectivity
- Places
- Integrated sustainability

PLANNING CONCEPTS
- Flexible / Operable partitions
- Indoor / Outdoor areas
- Overhead power and services for quick reconfiguration

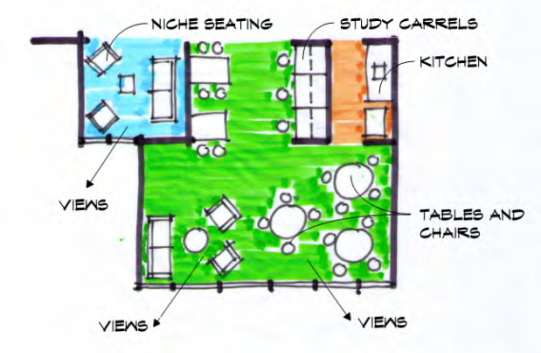
6. WELLNESS / PHYSICAL EDUCATION

The Language of School Design: Design Patterns for 21st Century Schools Fielding Nair International

ATTRIBUTES
- Flexibility
- Comfort
- Ambiance
- Technology / Connectivity
- Places
- Integrated sustainability

PLANNING CONCEPTS
- Flexible, comfortable spaces
- Proper ventilation and temperature control
- Adequate variable lighting
- Large doors (garage doors) to convert and connect spaces quickly
- Outdoor seating areas
- Areas to promote fitness
- Connection from indoor to outdoor spaces and views

7. VARIED FOOD SERVICE AND DINING AREAS



ATTRIBUTES
- Flexibility
- Comfort
- Ambiance
- Technology / Connectivity
- Places

PLANNING CONCEPTS
- Provide for throughout entire facility
- Food court type dining service
- Self-serve and self-prepared food service areas
- Individual / small group / large group dining areas
- Formal and informal seating areas

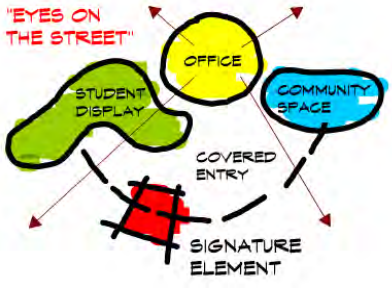
8. COMMON SPACE SERVES AS MULTI-PURPOSE/MULTI-FUNCTION SPACE

FACILITY "COMMON SPACE"

ATTRIBUTES
- Flexibility
- Comfort
- Ambiance
- Technology / Connectivity
- Places

PLANNING CONCEPTS
- Movable casework
- Enhanced operable walls
- Flexible, comfortable spaces
- Large doors (garage doors) to convert and connect spaces quickly
- Large view window partitions to encourage collaboration and provide supervision
- Interactive white boards
- Immediate access to information
- Varied food service and dining areas in size and location

9. WELCOMING ENTRY

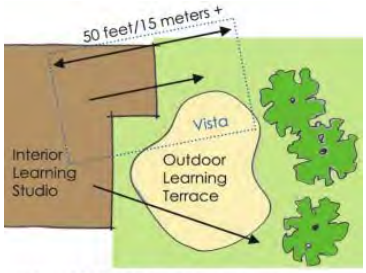


The Language of School Design: Design Patterns for 21st Century Schools
Fielding Nair International

ATTRIBUTES
- Comfort
- Ambiance
- Places

PLANNING CONCEPTS
- Flexible, comfortable spaces
- Large view window partitions to encourage collaboration and provide supervision
- Student display
- Outdoor seating areas
- Connection from indoor to outdoor spaces and views

10. INDOOR / OUTDOOR PHYSICAL AND VISUAL CONNECTIVITY



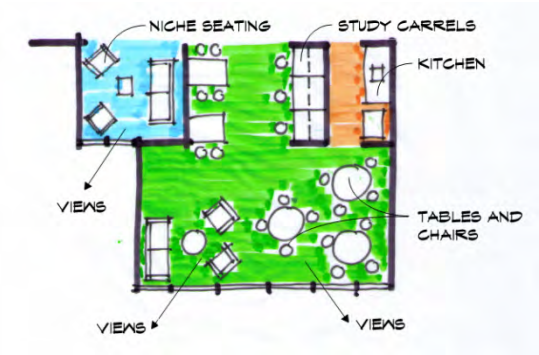
Vistas of 50 feet (15 meters) or more allow us to change our focal length, important to both eye health and comfort.

The Language of School Design: Design Patterns for 21st Century Schools
Fielding Nair International

ATTRIBUTES
- Comfort
- Ambiance
- Places
- Integrated sustainability

PLANNING CONCEPTS
- Flexible, comfortable spaces
- Large doors (garage doors) to convert and connect spaces quickly
- Outdoor seating areas
- Areas to promote fitness
- Connection from indoor to outdoor spaces and views

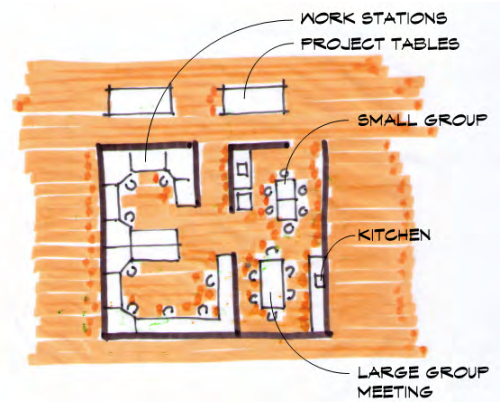
11. NICHE SPACES FOR INDIVIDUALS AND SMALL GROUPS



ATTRIBUTES
- Flexibility
- Comfort
- Ambiance
- Technology
- Connectivity
- Places

PLANNING CONCEPTS
- Varied movable seating types and layouts

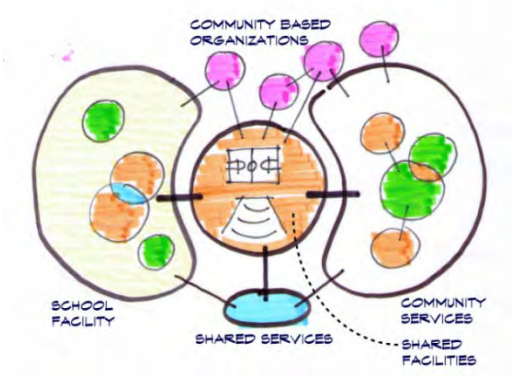
12. FACILITATOR SPACES



ATTRIBUTES
- Flexibility
- Comfort
- Ambiance
- Technology / Connectivity
- Places

PLANNING CONCEPTS
- Flexible, comfortable spaces
- Single use work stations with personal storage
- Campus wireless access
- Varied food service and dining areas in size and location

13. SCHOOL / COMMUNITY CONNECTIONS



ATTRIBUTES
- Ambiance
- Places

PLANNING CONCEPTS
- Shared facilities
- Enhance local architectural fabric
- Flexible, comfortable spaces
- Outdoor seating areas
- Connection from indoor to outdoor spaces and views

14. MEDIA FUNCTIONS DISPERSED THROUGHOUT FACILITIES

ATTRIBUTES
- Flexibility
- Comfort
- Ambiance
- Technology / Connectivity
- Places

PLANNING CONCEPTS
- Movable casework
- Enhanced operable walls
- Flexible, comfortable spaces
- Large doors (garage doors) to convert and connect spaces quickly
- Large view window partitions to encourage collaboration and provide supervision
- Student display
- Student work walls
- Interactive projectors
- Immediate access to information
- 3D display areas
- Outdoor seating areas
- Connection from indoor to outdoor spaces and views
- Campus wireless access

15. INTEGRATED SUSTAINABILITY

ATTRIBUTES
- Integrated sustainability

PLANNING CONCEPTS

Solar, rain harvesting, recycling, natural ventilation, controlled day-lighting, edible gardens, and LEED strategies to be integrated into the educational curriculum.

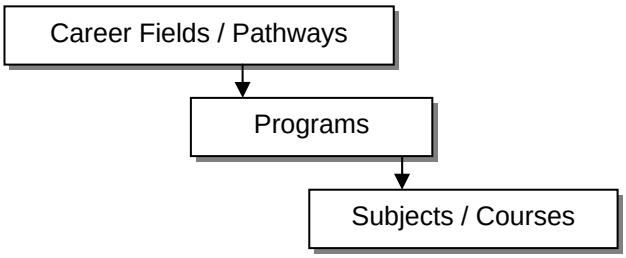
THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.

Career technical education has been and continues to be an evolving part of the academic curriculum. Historically, career technical education was identified as vocational training and associated with programming such as woodshop, auto mechanics, and agriculture courses. These programs were designed to teach the student technical skills to prepare them for work in factory jobs. With the infusion of technology into everyday life, the focus of vocational schools, now referred to as career-technical schools, has shifted to preparing students for a lifetime of learning in areas such as electronics, criminal justice, , engineering technology, and health care. These areas of study provide students with an opportunity to obtain sufficient knowledge to enter the workforce or prepare them to pursue more advanced educational training upon graduation.

The Ohio Department of Education (ODE) has identified career fields with pathways and specializations that provide academic instruction and field-specific training to prepare students for future careers. Following is list of career fields currently recognized by ODE.

Agricultural and Environmental Systems
Arts and Communication
Business and Administrative Services
Construction Technologies
Education & Training
Engineering & Science Technologies
Finance
Government & Public Administration
Health Science
Hospitality and Tourism
Human Services
Information Technology
Law and Public Safety
Manufacturing Technologies
Marketing
Transportation Systems

These career fields are identified by a CTE Program Code setting into place the hierarchy of career fields, programs and subjects/courses as identified the ODE Crosswalk.



Additional information can be obtained from ODE.

These career fields/pathways/specializations are being implemented in comprehensive high schools, as well as career technical facilities throughout Ohio. Spaces required for this coursework are similar to core academic classrooms and include administrative and support spaces. However, most of the career pathway learning occurs in spaces that are designed and equipped to support the specialized curriculum. The Career-Technical sections of the Ohio School Design Manual (OSDM) were developed to guide the programming, design, and construction of Career-Technical School Facilities within career-technical school districts constructed under the Vocational Facilities Assistance Program. The information may also be used when planning a comprehensive high school.

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.

A. PREFACE

Just as every student is unique as represented in their IEP (Individualized Education Program), so is every school district in addressing the specific needs of the students they serve. It is the intent of the Ohio School Design Manual (OSDM) to accommodate the specific needs of all students, realizing that a large majority of those students identified as children with disabilities may utilize a variety of spaces throughout the school day to address their IEP. Since Ohio is experiencing a continued increase in the number of students identified as children with disabilities, the facility requirements must provide the flexibility to address the changing demographics as well.

Since the OSDM serves as a guide, it is necessary during the planning process to identify the specific needs of the school in meeting the children with disabilities population and plan early in the process to ensure that those needs are being met through the design.

B. INTRODUCTION

The Ohio Department of Education - Office for Exceptional Children is responsible for the educational welfare of exceptional children throughout the state of Ohio. This agency provides standards for serving students with disabilities that comply with the Ohio Revised Code, Individuals with Disabilities Education Act (IDEA) 2004 and the goals of No Child Left Behind Act of 2001. On July 1, 2008, the Operating Standards for Ohio Educational Agencies Serving Children with Disabilities (Operating Standards) became effective. “These standards provide a framework to ensure that all children receive a quality education tailored to their unique needs.” Additionally, these standards define a full continuum of services for students with disabilities in the “Least Restrictive Environment.”

The OSDM provides square footage guidelines to comply with the educational program requirements illustrated in the operating standards. During the planning process, reference should be made to the latest edition of the standards.

The Ohio Educational Management Information System (EMIS) provides disability category identifiers and primary service codes for students with disabilities to meet the “Least Restrictive Environment” requirement for all students with disabilities. These codes can then be used by the school district and design team to differentiate between the type and number of spaces needed in each school to address the unique facility needs for each type of student with disabilities. Example: if a student can be included in the regular classroom for the entire day, their primary service code would be **IE 13**. For a student that spends most of the day in a self-contained classroom their code might be **IE 15**. There are primary service codes, which are subject to change, for other types of students. Districts should refer to EMIS for forms and procedures for identifying students with disabilities.

In addressing the requirement to provide the least restrictive environment for each student, accommodations must also be made for the mandated age span requirements established in the Operating Standards (48-60 months, depending on the disability).

Another factor that must be taken into consideration when determining space needs is based on research as well as common practice. A large majority of children with disabilities participate in a regular classroom setting with their “teacher of record” being the special education resource teacher. Typically, those students are scheduled in the regular classroom for activities for which they can benefit and then spend time in the Resource Room based on their IEP. Students are often in the Resource Room and the Core Classroom several times each day. Therefore, it is difficult to arbitrarily assume that each student in a building has only one “home base” in determining space needs.

There are numerous factors to be considered when planning school facilities for students with disabilities. It is important to start planning for these students early in the process by identifying the programs and services, spaces, and staff that will be needed to ensure that their needs will be met through the design and construction of the facility.

C. OSDM SQUARE FOOTAGE ALLOCATIONS

In order to accommodate school districts in meeting the unique requirements of its children with disabilities, Ohio School Facilities Commission (OSFC) has provided spaces that include instructional and support services for all types of students with disabilities. The number and type of spaces is determined by the student's IEP and the number of children in each type of disability and as identified by their primary service code. Listed below are the pertinent spaces provided in the OSDM:

- Self-contained Classroom(s)
- Workroom /Conference Room
- Restroom/Shower
- Resource Rooms
- Small Self-contained Classroom
- Guidance Services
- Health Clinic
- Other Support Spaces

As each school district addresses its specific student requirements, the square footage allocated for classrooms may be utilized to address students with disabilities as well as typical education students. In order to determine the number of spaces needed to serve these students, it is important for the district to identify the current students with disabilities population and by reviewing trends in this population, project the future quantity and type of spaces needed to accommodate these students.

The square footage and layout guidelines for students with disabilities spaces are shown in the Elementary, Middle, and High School program areas.

D. SERVICE PROVIDER RATIOS FOR DELIVERY OF SERVICES

Shown below is a table summarizing the service provider ratios for delivery of services found in section 3301-51-09 "Delivery of Services" of the Operating Standards.

Disability	Grades K-8	Grades 9-12	Age Span
Cognitive Disabilities	16 (12 at one time)	24 (16 at one time)	60 mos. (in 1 period)
Learning Disabilities	16 (12 at one time)	24 (12 at one time)	60 mos. (in 1 period)
Hearing, Visual, Orthopedic Impairments	10 (8 at one time)	10(8 at one time)	48 mos. (in 1 period)
Emotional Disturbances (***Plan for Classroom Management & Crisis intervention in operation.*** If no plan, one FT paraprofessional)	12 (10 at one time)	12(10 at one time)	48 mos. (in 1 period)
Multiple Disabilities (plus one FT paraprofessional)	8	8	60 mos. (in 1 period)
Autism, deaf-blind, traumatic brain injury (plus one FT paraprofessional)	***6***	***6***	60 mos. (in 1 period)

Related Services	K-12 # of Students	Preschool Students
Adapted P.E.	100	100
Audiologist	100	75
Occupational Therapy	50	40
Mobility Instructor	50	40
Physical Therapist	50	40
Speech, language, Pathologist (1SLP for 2000 students)	80	50
School Psychologist (1 Psychologist per 2500 students)	125	75

Information regarding Preschool aged children and additional information on delivery of services can be found in the most recent addition of the Operating Standards and the Ohio Revised Code section 3301-51.D.

E. MATRIX FOR USE OF SPACE BY DISABILITY

The table below illustrates the various disabilities and instructional and support spaces provided by the OSDM that would accommodate the activities associated with each disability. The table is not intended to limit the use of each space, only to suggest how spaces may be utilized.

	Regular Classroom (900 SF)	**Self-Contained CR (900 SF)**	**Restroom**	**Workroom/ Conference**	**Resource (900 SF)**	**Small Self-Contained Classroom (600 SF)**
Disability						
Autism	●			●	●	●
Cognitive Disability (Mental Retardation)	●	●	●		●	●
Deaf-Blindness	●				●	●
Emotional Disturbance	●	●			●	●
Hearing Impairment	●				●	●
Multiple Disabilities	●	●	●		●	
Orthopedic Impairment	●			●	●	●
Specific Learning Disability	●				●	●
Speech Language Impairment	●			●		
Visual Impairment	●				●	●
Traumatic Brain Injury	●				●	●
Support Services						
Occupational Therapy				●	●	●
Physical Therapy				●	●	●

- Disabilities are based on the Operating Standards for *Ohio Educational Agencies Serving Children with Disabilities, current edition.*
- Other square footage that could be allocated to meet Special Education program needs includes:
  - Project Laboratory
  - Instructional Material Storage
  - Staff Dining
  - Small Group Rooms
  - Multi-Use Room
  - Teacher Prep Area/Workroom
  - In-School Suspension
  - Itinerant Personnel Offices

F. DEFINITION OF TERMS

Definitions of terms used in this section and in the discussion of children with disabilities can be found in the current edition of the Operating Standards.

G. ADDITIONAL RESOURCES

For additional information about *planning for children with disabilities* there are some excellent resources to obtain. One can be obtained from the OSFC office entitled "Planning Your School Facilities Construction Project with Sensitivity to the Needs of Students with Disabilities." The second document is the "Operating Standards for Ohio *Educational Agencies* Serving Children with Disabilities" from the Ohio Department of Education.

H. FACILITY CONSIDERATIONS:

As stated in the introduction above, there are numerous factors to consider when designing a school facility to accommodate children with disabilities. Size, quantity, flexibility, adaptability, accommodations for various pieces of assistive equipment and space for movement are just a few of the factors to consider. Shown below is an example of one type of space for children with disabilities. The example shows many aspects of Physical Therapy and Occupational Therapy and how they relate to the facility design and the Program of Requirements (POR).

Physical Therapy (PT) or Occupational Therapy (OT) Services
Overview of Program

Physical Therapy is designed to help restore and maintain useful movement or function. Some of the examples of physical therapy are:

- Stretching and range of motion exercises
- Exercises to develop trunk control and upper arm muscles
- Assistance in obtaining appropriate assistive equipment, including ambulatory aids, braces and wheelchairs, etc.
- Training in walking and appropriate use of assistive devices, such as ambulatory aids, braces, and wheelchairs, etc.
- Transfer training-how to get from one spot to another, such as from student chair to wheelchair or from wheelchair to car
- Training in how to fall safely in order to cause the least possible damage
- Patient and family education
  (Source: MS Information Sourcebook, produced by the National MS Society http://www.nationalmssociety.org/Sourcebook-pt.asp)

Connections between Program Requirements and Physical Facilities

The need for a specialized physical therapy space is based on the IEP of each student that is housed in the educational facility. The program information that is provided in the design manual is based on a physical therapy space that can accommodate the three fundamental requirements in a physical therapy area: exercise; treatment; and hydrotherapy.

However, the space needs to support the individual needs of each student and must be flexible to accommodate all students within an educational facility who require physical therapy as an integral part of the services indicated in the IEP. Typically, in the school environment, a limited number of students require physical therapy and the space needs are much less structured as those indicated in this document. In order to determine the appropriate space requirements, it is essential that each school district identify all students receiving PT services based on the historical, current and projected enrollment data. Items to consider are:

The Exercise Area needs to be:

- Well lighted with flexible lighting (dimmer switches)
  Large enough to allow for unencumbered use of all rehabilitative exercise equipment including: treadmills, bicycles, wall mounted weights, mat tables (Including curtain tracks for privacy), and a reinforced wall of installation of stall bars

The Treatment Area should provide:

- Considerable patient privacy by use of curtains, cubicles or enclosed rooms.
- Flexible lighting (dimmer switches) for student comfort
- Equipment needs may include: massage tables; ultrasonics; thermotherapy (using wet or dry heat) and diathermy (dry heat treatment using short wave or microwave).

Hydrotherapy is the use of water to treat injuries and disease where the water conducts heat and makes motion easier and less painful. If hydrotherapy space is provided, the wet areas require additional engineering to structurally accommodate Hubbard tanks (large tanks of heated moving water big enough to float the whole body) and overhead lifts. Special plumbing, especially for whirlpool baths, is required for mixing valves that control water temperature in the tubs. Floor drains are required and floor surfaces in all wet areas are of a nonskid surface. Hydrotherapy areas include: full baths, footbaths, whirlpool baths and hot and cold baths. Even though there are three fundamental requirements for physical therapy, no absolute requirements for the type of space can be recommended since the program must be based on the individual needs of the students being housed in the facility. In the event there are a limited number of students requiring these services, (which is most often the case in most educational facilities), an open unobstructed space which allows for maximum flexibility which can be rearranged based on each student's needs is highly recommended. The use of hydrotherapy as defined in the paragraphs above, requires a more specialized space and would not be indicated in most student IEPs. There are other methods of providing hydrotherapy to students without the space requirement of full baths, whirlpools and other water requirements.

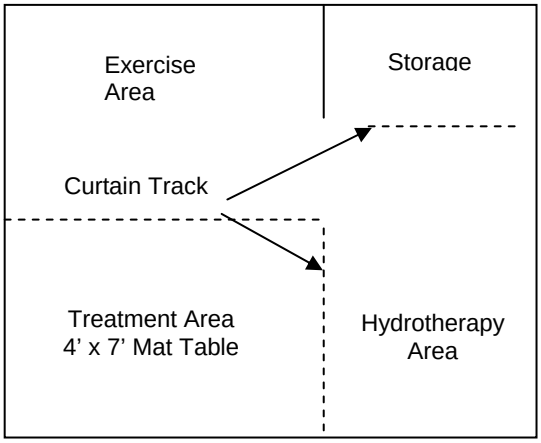
Other facility considerations for a physical therapy area need to be considered. One very important area is the need for storage for the variety of therapy equipment that is needed. Controlled ventilation much be considered since many of the treatment procedures require the use of dry or moist heat or active exercise, which raise body temperature. Air conditioning is also recommended for the therapy area. Often wall-mounted equipment is needed for some students and the recommendation is to line the walls with plywood or particleboard and then cover with the finish material of drywall, plaster or paneling. As has been indicated earlier in this section, the need for a specialized, dedicated physical therapy space is not required or recommended for most educational facilities housing a limited number of students requiring specialized physical therapy. The information included as a brief overview of the physical therapy program to provide an understanding of the requirements of the program to better assist the educators in determining appropriate space needs.
(Source: http://www.schemmer.com/resource/mfrn/therapy.htm)

Physical Therapy (PT) or Occupational Therapy (OT) Services, continued

Facility Considerations

- Ability to hang equipment from ceiling
- Dimmable lights
- Tile floor
- Access to water
- Large storage area for:
  - balance beam
  - balls
  - mats
  - small therapy equipment
  - scooter board
  - ramp
  - portable stairs
  - hanging equipment
  - braces
  - wheelchair

Example of Physical Therapy Space



Occupational therapists who work with children are knowledgeable about stage of development and the appropriate milestones in a child's physical, mental, and behavioral development. For example, a child with delayed development may not show behaviors and abilities that are typical of the child's age. A child may have difficulty achieving independence in feeding, dressing, and using the bathroom; understanding relationships between people, objects, time and space; and development problem-solving and coping strategies.

Occupational Therapists can evaluate a child's level of performance, observe the child's environment, and develop a plan of treatment. They can develop age-appropriate self-care routines and habits and recommend adaptive equipment to facilitate the development of age-appropriate abilities.

Most often the space requirements for the OT program can be shared with the PT and/or the SLP because typically PT and OT are only part-time services in each building. Most often, the caseload is seen individually or in small groups with therapy consisting of hands-on activities. If on occasion larger space is needed, alternative arrangements can be made.

I. ADDITIONAL FACILITY CONSIDERATIONS

The table on the following page illustrates items that should be considered for inclusion in the classroom and school facility when designing spaces for exceptional students.

Additional Facility Considerations for Special Needs Students Housed in Special Needs Classrooms

	Group 1 – Areas Inside the Classroom								Group 2 – Areas Outside the Classroom			
Disability	Art Area	Quiet Area	OT/PT Area	Science Area	Floor Mat Area	Mirrors Floor to Ceiling	Mirror on the Wall	Life Skills Area	Changing Area	Restroom	Shower Area	Wheelchair Storage Area
Autism	X	X	X	X					X	X		
Cognitive Disability (Mental Retardation)	X	X	X	X	X	X		X	X	X	X	X
Deaf-Blindness*	X		X	X			X	X				
Emotional Disturbance	X	X		X						X		
Hearing Impairment				X			X					
Multiple Disabilities*	X		X	X	X	X		X	X	X	X	X
Orthopedic Impairment	X		X	X						X		X
Specific Learning Disability				X			X					
Speech Language Impairment*							X					
Visual Impairment			X									
Traumatic Brain Injury	X	X	X	X			X		X	X		

* Acoustical treatment is critical in these areas

A. GUIDELINES

A school district desiring pursuance of an Ohio School Facilities Commission (OSFC) co-funded Student Centered Learning (SCLE), Blended Learning (BLE), or other non-Traditional Learning Environment (TLE) facility will be **required** to follow and complete each step in this Process Overview section. Non-Traditional Learning Environments are referred to as a High Performance Learning Environment (HPLE) which includes SCLE's, BLE's, and any other additional concepts developed through the planning process.

School districts desiring pursuance of an OSFC co-funded TLE are **strongly encouraged** to follow and complete each step in this Process Overview section.

School districts desiring pursuance of an OSFC co-funded HPLE facility should understand that a shift in teaching methodology is required to align with HPLE concepts. Many learners favor active, participatory, experiential learning, the learning style they exhibit in their personal lives. A learner's behavior may not match their self-expressed learning preferences in a traditional classroom setting. HPLE's should facilitate and promote active, social, and experiential learning. Traditional teaching methods tend to be more teacher-centered and do not often promote this type of student-centered, blended, and non-traditional learning environments.

School districts do have the option to develop a phased approach to implementing concepts at a facility in lieu of all facilities school district-wide. As a part of the deliverables and review process, a description of the phased approach and schedule for implementation of the concepts will be required.

In addition, school districts have the option to design facilities with traditional and HPLE concepts implemented into a single facility. In this approach, traditional concepts should be planned to adapt easily to HPLE concepts in the future. As a part of the deliverables and review process, a description of the means and methods for future adaptability will be required. A schedule for the implementation of the HPLE concepts is also required.

B. DELIVERABLES

Prior to engaging in the PRE-PLANNING activities of an OSFC co-funded facility, the school district shall notify OSFC, during the pre-planning process, of its intent to begin a planning process. In addition to the documents required for a traditional OSFC co-funded facility, the following additional items are required for submittal with HPLE's during the PRE-PLANNING stage. The following deliverables will precede the traditional Program of Requirements (POR) submittal. **OSFC concurrence and approval of co-funding a HPLE will be based upon the specific planning concepts and diagrams and their ability to support the school districts educational mission / vision**. It is the responsibility of the school district to provide, at a minimum, the following documents and any other supporting documents deemed necessary to convey the ability of the planning concepts to support the school districts educational mission / vision.

1. PLANNING PROCESS OUTLINE and a PLANNING PROCESS DIAGRAM along with any additional information developed from the school district.

2. School district-specific EDUCATIONAL MISSION / VISION.

3. EDUCATIONAL SPECIFICATIONS specifically written for the school district. Educational Specifications are a written communication from the school district to the design professional describing current and future programs and services to be accommodated in the new or renovated school facility. This document represents a compilation of the mission, vision, goals, student learning policies, procedures, and philosophies, program delivery methodologies, Program of Requirements (POR), and space organizational concepts that bring innovation and educational consistency to the planning and design of new and renovated schools. It informs the design team on how to design the building to accommodate instructional and support activities, special needs learners, technology, equipment, and furnishings. Finally, the document illustrates and describes how the educational mission and goals of the school district will be met.

The Educational Specifications should provide specific school district strategies and concepts, which respond to and satisfy all of the below learner competencies and physical attributes.

A physical facility will support learning that is:

- interdisciplinary
- engaging, relevant, and interesting
- inquiry based
- learner centric / mentor facilitated

additionally, emphasis should be focused on:

- learning collaboration
- learning independently
- learning critical thinking
- learning oral communication
- learning written communication
- learning technology
- developing citizenship
- practicing healthy lifestyles
- learning about careers
- mastering core subject material

within a facility that will allow learners to:

- work in teams
- develop critical thinking skills
- take on complex problems
- present and instantly share ideas
- write and document
- use technology fluently
- take on civic, local and global issues
- participate in physical wellness
- participate in internships
- research

Provide specific school district strategies and concepts developed, which respond to and satisfy all of the above learner competencies and physical facility attributes.

4. DIVERSIFIED CURRICULUM STRATEGIES AND ASSESSMENT CRITERIA.
How a facility will meet, deliver, and assess learning objectives and content with students needs to synchronize with the way students learn best. School districts must look beyond “what” is taught in the classroom and consider "how" the curriculum is delivered and assessed. Traditional curriculum is delivered in lecture style followed by written tests to determine grades. Diversified curriculum strategies, as well as tools to assess learning objectives should reflect the way students learn.

Some examples of diversified curriculum strategies are;

- project based learning
- distance learning
- work-based / internships
- locally-based learning
- hybrid or blended classroom
- flipped classroom
- online / e-learning
- diagnostic / prescriptive Lesson
- small / large group learning
- hands-on learning
- blend of any / all of the above

5. SAMPLE LESSON PLANS which support instructional delivery and the school district's educational mission / vision.

6. EDUCATIONAL PLANNING COMMITTEE INFORMATION.
   - participants
   - goals
   - agendas
   - minutes
   - directives
   - outcomes
   - workshop summaries

7. HPLE WORKSHEET SUMMARY, BLE CHECKLIST and POR, or TLE POR including specific responses, comments, or direction associated with each of them.

8. SCHEMATIC DIAGRAMS AND DRAWINGS supporting the educational mission / vision and educational specifications.

C. PLANNING PROCESS

An educational planning process is a required part of a HPLE project. It is **strongly encouraged** to engage in a similar planning process in a TLE. While a process is required, OSFC is flexible in its steps, approach, and execution. The sample planning process shown below provides an outline for the **required** planning process. The primary purpose of the educational planning process is to give opportunity for all stakeholders to be involved, define the characteristics of a HPLE, and to assure that the educational goals of the School district will be met in the new or renovated facility(ies).

D. SAMPLE PLANNING PROCESS

Every school district is unique, therefore the planning process implemented by each school district should be unique and tailored to each school district's individual needs, visions, and goals. Although each school district's process and timeline will be unique, it is the responsibility of the school district to provide, at a minimum, the deliverable documents and any other supporting documents deemed necessary to convey the ability of the planning concepts to support the school district's educational mission / vision. The final deliverable document will serve as the HPLE Educational Specifications.

It is recommended that ALL stakeholders be included and involved in the planning process. The planning process requires customization to optimize the efforts and results. It is a flexible and responsive process. The eventual outcome, including the impact of the deliverables, is dependent on all of the phases being executed.

Following is a summary of a planning process. A word document for school district use is included as a separate file within the Design Manual CD. The document contains the SAMPLE PLANNING PROCESS OUTLINE described below as well as a SAMPLE PLANNING PROCESS TIMELINE DIAGRAM. The attached document should serve as a template to be edited and modified by the school district for use in developing their own planning process and timeline.

THE PLANNING PROCESS WILL VARY BASED ON PROJECT DELIVERY METHOD SELECTED

1. PHASE 1: PRE-PLANNING / KICK-OFF MEETING

- **PARTICIPANTS**
  - Control / Direction
    - Board of Education
    - School District Administration *(superintendent, business manager, curriculum director, principals, other school district representatives as appropriate)*
  - Guidance / Oversight
    - OSFC Planner (OSFC-P)
    - OSFC Project Manager (OSFC-PM)
    - Pre-Bond Design Professional (PBDP)
    - Design Professional (Agency CM) / Criteria Architect (Design Build) (optional)
    - Educational Planner (EP)

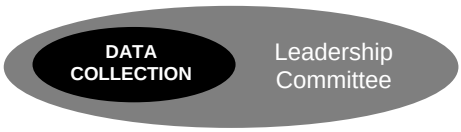
- **TASKS / GOALS**
  - Define in writing SCHOOL DISTRICT'S
    - Educational Mission, Vision, Goals, and Objectives
      - *Educational Mission, Vision, Goals, and Objectives could be part of EDUCATIONAL PLANNING COMMITTEES charge*
    - Curriculum delivery methods *(traditional, HPLE, other)*
      - *Curriculum delivery methods could be part of EDUCATIONAL PLANNING COMMITTEES charge*
  - Develop a SCHOOL DISTRICT SPECIFIC planning process using the separate word template files provided within the design manual and modifying them for the school districts specific use.
  - Identify and form a LEADERSHIP COMMITTEE (refer to section 0053)
    - LEADERSHIP COMMITTEE tasks
      - Guide, manage, endorse and supervise the planning process
      - Custodian of information and compilation of ALL deliverables for presentation and publication
      - Review of information
      - Liaison between EDUCATIONAL PLANNING COMMITTEE and BOE
      - Chaired by administrative member of school district
    - LEADERSHIP COMMITTEE participants should include
      - School district Superintendent
      - Board of Education representative
      - School district Administration (varies)
      - Additional stakeholders (varies)
      - OSFC Planner (OSFC-P)
      - OSFC Project Manager (OSFC-PM)
      - Pre-Bond Design Professional (PBDP)
      - Design Professional (Agency CM) / Criteria Architect (Design Build) (optional)
      - Educational Planner (EP)
      - Construction Professional (CP)

- **DELIVERABLES / OUTCOME**
  - Educational Mission, Vision, Goals, and Objectives
  - Curriculum delivery methods
  - School district specific planning process
  - Leadership Committee roster

2. PHASE 2: PROCESS DEVELOPMENT

- **PARTICIPANTS**
  - o Control / Direction
    - LEADERSHIP COMMITTEE
  - o Guidance / Oversight
    - Board of Education
- **TASKS / GOALS**
  - o Develop **FRAMEWORK** of the PLANNING PROCESS and WORK SESSIONS
    - Define roles and responsibilities of the EDUCATIONAL PLANNING COMMITTEE as
      - Defining school districts Educational Mission, Vision, Goals, and Objectives if not developed by LEADERSHIP COMMITTEE in Phase 1
      - Development of planning concepts to implement mission, vision, goals, and objectives
    - Identify issues to be vetted
    - Define purpose and goals of the PLANNING PROCESS and WORK SESSIONS
    - Develop a schedule for decision making milestones
    - Clearly define outcomes and work product expectations
    - Create WORK SESSION group exercises to encourage thinking, participation, and outcomes
    - Define roles and responsibilities of ALL other participants
    - Define objectives, outcomes and deliverables
    - Develop communication plan
  - o Identify and form an EDUCATIONAL PLANNING COMMITTEE (refer to section 0053)
    - EDUCATIONAL PLANNING COMMITTEE participants may include
      - Learners
      - Parents
      - Representative Group of Community Members
      - Community Leaders
      - Community Seniors
      - Business Leaders
      - Local Government
      - Clubs / Organizations
      - Other Stakeholders
      - OSFC Planner (OSFC-P)
      - OSFC Project Manager (OSFC-PM)
      - Pre-Bond Design Professional (PBDP)
      - Design Professional (Agency CM) / Criteria Architect (Design Build) (optional)
      - Educational Planner (EP)
      - Construction Professional (CP)
      - Instructors
      - Technology Coordinator(s)
      - Board of Education representative
  - o Notify participants - PLANNING COMMITTEE participants
  - o Distribute timeline and planning process framework
- **DELIVERABLES**
  - o Framework tasks and goals of the PLANNING PROCESS and WORK SESSIONS
  - o Timeline of planning process
  - o Custodian of information and compilation of ALL deliverables for presentation and publication

3. PHASE 3: DATA COLLECTION



- **PARTICIPANTS**
  - Control / Direction
    - LEADERSHIP COMMITTEE
    - Regional Program Consultant (RPC)
    - Assessment Consultant (AC)
    - Educational Projection Consultant (EPC)
  - Guidance / Oversight
    - OSFC Planner (OSFC-P)
    - OSFC Project Manager (OSFC-PM)
    - Design Professional (Agency CM) / Criteria Architect (Design Build) (optional)
    - Educational Planner (EP)
    - Construction Professional (CP)
    - Pre-Bond Design Professional (PBDP)
- **TASKS**
  - Compile school district data for use by the PLANNING COMMITTEE in the WORK SESSIONS consisting of;
    - Existing facilities data (refer to section 0101)
      - Building areas / condition
      - Existing grade configurations and student enrollments by grade and facility
      - Breakdown of areas in facilities and uses
    - Current curriculum, building schedules, and educational delivery
    - Current and future programs
    - Historic / current / projected enrollment (refer to section 0102)
    - School district Educational Mission, Vision, Goals, and Objectives statement
    - School district attendance boundaries
- **DELIVERABLES**
  - Complete school district data compiled ready for distribution to EDUCATIONAL PLANNING COMMITTEE

4. PHASE 4: WORKSHOP(S) *(quantity varies with each school district)*

- **PARTICIPANTS**
  - Control / Direction
    - EDUCATIONAL PLANNING COMMITTEE
  - Guidance / Oversight
    - LEADERSHIP COMMITTEE
- **TASKS / GOALS**
  - Group consensus building exercises in WORKSHOPS within an agenda of;
    - Data presentation / instructions
    - Group work sessions
    - Group presentations
    - Observation and conclusions

  defining at a minimum the following

    - School Districts Educational Mission, Vision, Goals, and Objectives if not developed by LEADERSHIP COMMITTEE in Phase 1
    - Development of planning concepts / educational specifications to support the Mission, Vision, Goals, and Objectives
    - Development of planning concepts / educational specifications to support curriculum delivery methods
- **DELIVERABLES**
  - Planning concepts and conceptual diagrams, inclusive of entire site
  - Educational Specifications
  - HPLE summary of spaces (POR), BLE Checklist and (POR), or TLE (POR)
  - Curriculum delivery methods and criteria

5. **PHASE 5: PLANNING SESSION(S)** *(may include several sessions as well as several meetings, presentations, and dialog between LEADERSHIP COMMITTEE AND EDUCATIONAL PLANNING COMMITTEE)*

- **PARTICIPANTS**
  - Control / Direction
    - EDUCATIONAL PLANNER (EP)
    - LEADERSHIP COMMITTEE

- **TASKS / GOALS**
  - Present questions to Board of Education from EDUCATIONAL PLANNING COMMITTEE and report back to EDUCATIONAL PLANNING COMMITTEE
  - Document and compile WORK SESSION deliverables for presentation and publishing
  - Document the following in the Educational Specifications
    - Written educational vision concepts
    - Curriculum delivery methods and criteria
    - HPLE Worksheet (POR), BLE Checklist and (POR), or TLE (POR)
    - Diagrammatic studies identifying compilation of space, program illustrations, and spatial diagrams identifying each program and the relationship to the entire facility, including site
    - Workshop overview
    - LEED strategies and goals
    - Conceptual diagrams supporting the educational mission, vision, and goals of the school district
  - Prepare FINAL deliverables in report format

- **DELIVERABLES**
  - Educational Specifications
  - Diagrammatic studies
  - Conceptual diagrams
  - Workshop overviews and conclusions

6. **PHASE 6: PRESENT / EVALUATE**

- **PARTICIPANTS**
  - Control / Direction
    - LEADERSHIP COMMITTEE
    - EDUCATIONAL PLANNING COMMITTEE

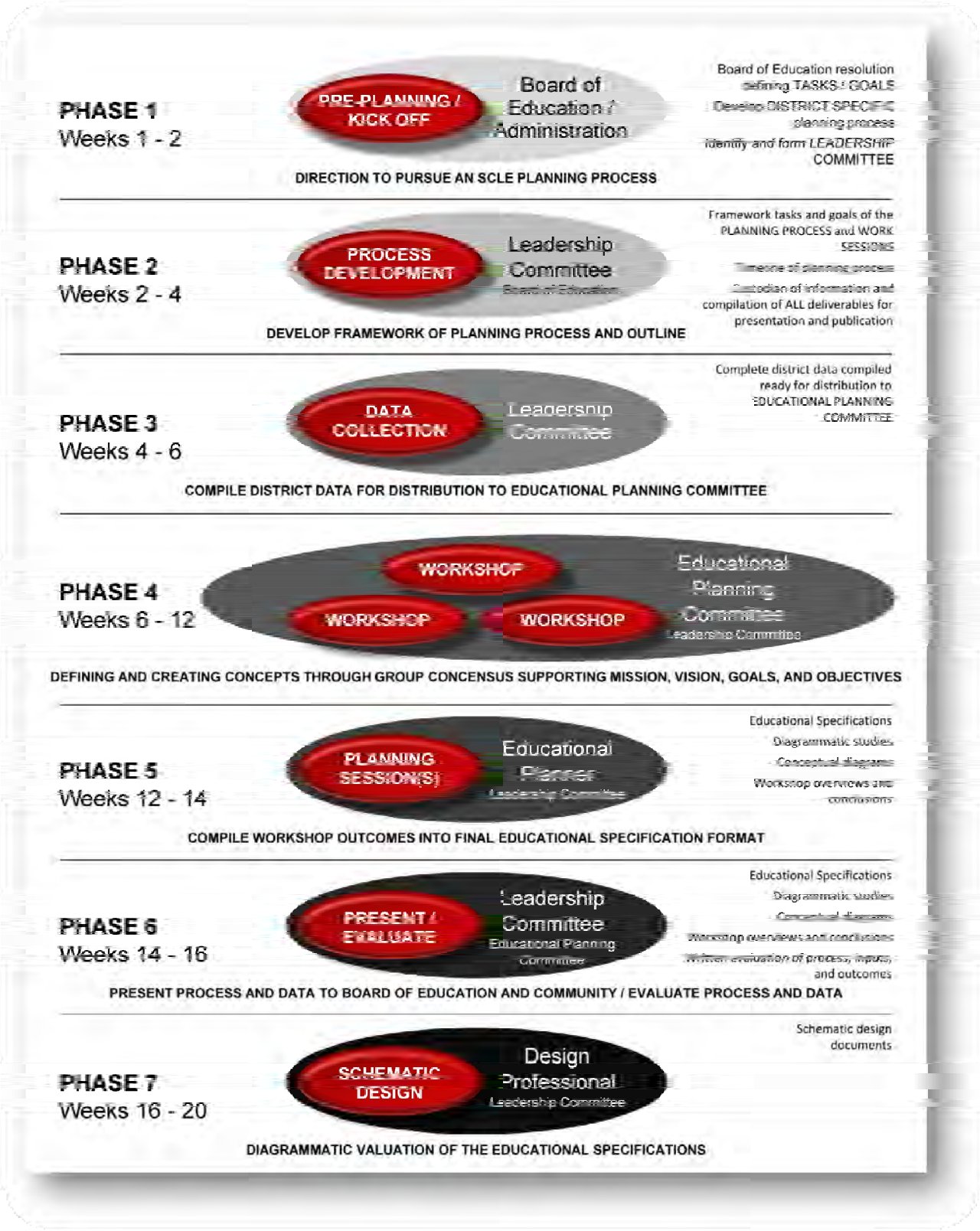
- **TASKS / GOALS**
  - Present entire process to Board of Education and Community
  - Evaluate entire process

- **DELIVERABLES**
  - Educational Specifications
  - Diagrammatic studies
  - Conceptual diagrams
  - Workshop overviews and conclusions
  - Written evaluation of process, inputs, and outcomes

7. PHASE 7: SCHEMATIC DESIGN

- **PARTICIPANTS**
  - Control / Direction
    - DESIGN PROFESSIONAL (DP)
    - LEADERSHIP COMMITTEE
  - Guidance / Oversight
    - EDUCATIONAL PLANNING COMMITTEE
- **TASKS / GOALS**
  - Diagrammatic valuation of the Educational Specifications
- **DELIVERABLES**
  - Schematic design documents

E. SAMPLE PLANNING PROCESS TIMELINE DIAGRAM



THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.

Well in advance of application for a non-funded program (ELPP or VFAP ELPP) or notification of eligibility for a funded program (CFAP, ENP or VFAP), the school district should undertake a process to establish partnerships with community stakeholders, establish and refine its educational vision, and review school facilities in connection with that educational program and vision. There are many processes that have been developed to engage the community in this dialogue. Key elements of any successful process include:

- **Educational Visioning** – The purpose of these activities is to provide an in-depth discussion of "best practices" for education and ways in which that influences facility needs. This is often done through a series of visionary workshops to address national trends and current research in the areas of early childhood, elementary, middle school, and high school education. Based on this framework, the group determines how this information influences facility needs.

- **Site Meetings** – Site meetings provide the opportunity for a large number of stakeholders to share their ideas, issues, and concerns regarding the long-range facility needs of the school district. This also provides an opportunity to ascertain some of the short term needs and concerns of each building. These meetings provide the opportunity for a large number of constituents to participate and are a recruitment tool for participants in subsequent Key Communicator meetings.

- **Business Community Meetings** – Meetings with a number of local business and community groups are held to share information and obtain input.

- **Steering Committee/Stakeholder Group** – The primary purpose of this group is to "arm" the participants with information about the schools. This group considers the needs of the entire school district and processes the information from all the Site Meetings as well as the data assembled for all the schools. This information will be organized to enable the Steering Committee/Stakeholder Group to process and understand it. Each participant becomes a "key communicator" within the community (and at the subsequent Community Forums/Dialogues) to discuss the issues/concerns facing the schools. This level of engagement also forms a large number of persons who are strongly invested in the planning process and the ultimate outcome.

- **Options Development** – The stakeholder group develops and considers options for the district's facilities to narrow these options to a reasonable number for further consideration. Workshops are conducted with stakeholder volunteers and school district staff to develop options with consideration for the financial, facility, educational, social, political, and community implications.

- **Community Forums/Dialogues** – Community Forums/Dialogues are held to inform and obtain feedback from the community regarding the options under consideration. The volunteers involved with authoring the various options will are actively involved with presenting the options at the Community Forums/Dialogues. The comments from the Community Forums/Dialogues serve as essential feedback in obtaining the reaction of the community to the proposed direction of the district's educational program and vision as it relates to facilities.

Refer to section 0052 for approximate durations of the community engagement process.

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.

K-12 SCHOOLS

After the Assessment and Enrollment Study/Projection reports are completed, the Master Facilities Plan is developed to define the scope of work and budget for each of the school district's facilities. The number of students projected for each school is entered into the grade level-appropriate spreadsheet in the Ohio School Design Manual (OSDM) to determine the total gross square footage for that school in the Master Facilities Plan. Square foot allowance charts can be found in Chapter 2, Section 2000 of the OSDM. When Career-Technical programs are provided at the facility, the projected enrollment in the Career-Technical program is used along with the types of programs to develop a space allocation for those high schools housing Career-Technical programs.

CAREER-TECHNICAL SCHOOLS

After the assessment and enrollment reports are completed, the Master Facilities Plan is developed to define the scope of work and budget for each of the school district's classroom facilities. The number of career-technical students for each school is entered into the core space spreadsheet in Chapter 2 of the OSDM (Career-Technical section) to determine the total gross core square footage for that school in the Master Facilities Plan. The program area is determined by developing a program of requirements. Square foot maximum charts can be found for both core and program areas in Chapter 2, Section 2700 of the OSDM (Career-Technical section).

The core square footage for each school is then multiplied by the allowable cost per square foot for that school level and school size (data found in Section 1200 of the OSDM). All buildings in the school district are aggregated to determine the overall budget for the Master Facilities Plan.

It is important to understand that the Master Facilities Plan is developed and presented in a DRAFT format for school district review. The process and timeline provides review, revision (if appropriate) and acceptance before a FINAL Master Facilities Plan is completed.

An example and description of the Master Facilities Plan format is included on the following pages.

Refer to section 0052 for approximate durations of the master facilities plan process.

A. MASTER FACILITIES PLAN SPECIFYING SCOPE AND COST FOR K-12 SCHOOLS

After the Assessment and Enrollment Study/Projection reports are completed, the Master Facilities Plan is developed to define the scope of work and budget for each of the school district's classroom facilities. The number of students projected for each school is entered into the grade level-appropriate spreadsheet in the OSDM to determine the total gross square footage for that school in the Master Facilities Plan. Square foot allowance charts can be found in Chapter 2, Section 2000 of the OSDM. When Career-Technical programs are provided at the facility, the projected enrollment in the Career-Technical program is used along with the types of programs to develop a space allocation for those high schools housing Career-Technical programs.

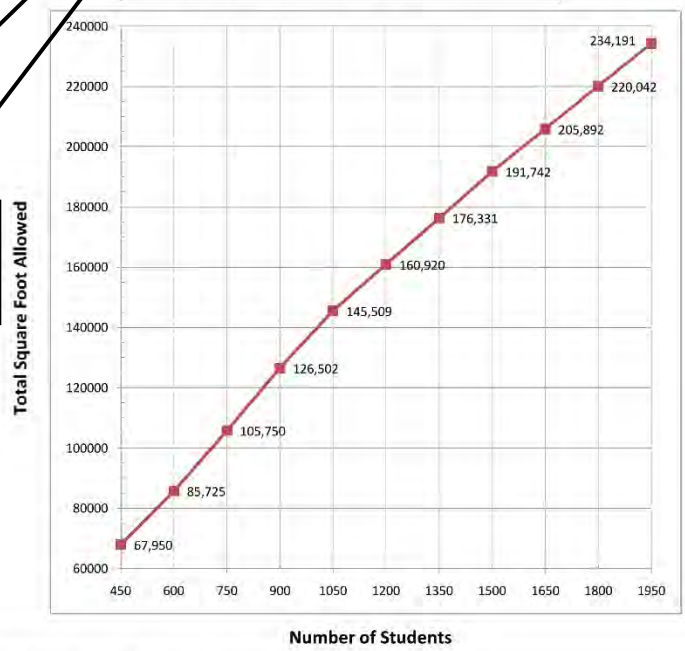
The square footage for each school is then multiplied by the allowable cost per square foot for that school level and school size (data found in Section 1200 of the OSDM). All buildings in the school district are aggregated to determine the overall budget for the Master Facilities Plan.

To determine the gross square footage for a school building, enter the number of students.

MIDDLE SCHOOLS
SQUARE FOOT ALLOWANCE CHAPTER 2: BRACKETING

Enter # of students	1200
SF/student	134.10
Total SF for building	160,920

MIDDLE SCHOOL: Grades 6 - 8
450 students or less, 151 SF/student
451 - 600 students, decreases from 151-142 SF/student
601 - 750 students, 142 - 141 SF/student
751 - 1,000 students, 141 - 140 SF/student
1,001 - 1,500 students, 140 - 127 SF/student
1,501 - 2,000 students, 127 - 119 SF/student
2,001+ students, decreases from 119 SF/student



Ohio School Design Manual *2010s*
Ohio School Facilities Commission **2000 - 4**

B. MASTER FACILITIES PLAN SPECIFYING SCOPE AND COST FOR CAREER-TECHNICAL SCHOOLS

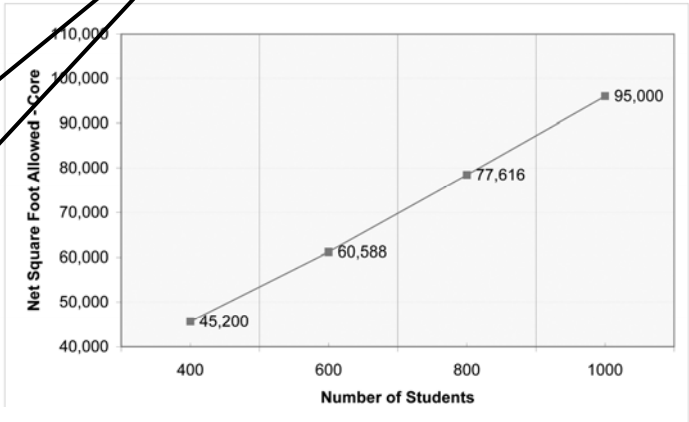
After the assessment and enrollment reports are completed, the Master Facilities Plan is developed to define the scope of work and budget for each of the school district's classroom facilities. The number of career-technical students for each school is entered into the core space spreadsheet in Chapter 2 of the OSDM (Career-Technical section) to determine the total gross core square footage for that school in the Master Facilities Plan. The program area is determined by developing a program of requirements. Square foot maximum charts can be found for both core and program areas in Chapter 2, Section 2700 of the OSDM (Career-Technical section).

The core square footage for each school is then multiplied by the allowable cost per square foot for that school level and school size (data found in Section 1200 of the OSDM). All buildings in the school district are aggregated to determine the overall budget for the Master Facilities Plan.

CAREER-TECHNICAL SCHOOLS
GROSS SQUARE FOOT MAXIMUM - CORE SPACES CHAPTER 2: BRACKETING

Enter # of Students	900
SF/Student	95.90
Gross SF for Core Spaces	86,308

Career-Technical School
400 students or less, ***113*** SF/student
1,000 students or more, ***95*** SF/student

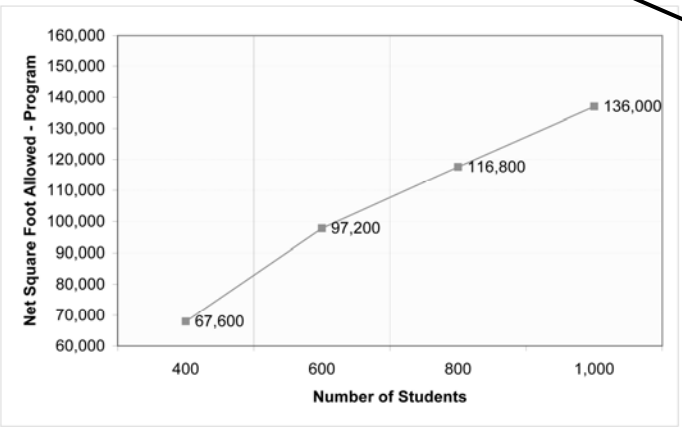


To determine the maximum gross core square footage for the Core Spaces enter the number of students.

CHAPTER 2: BRACKETING **CAREER-TECHNICAL SCHOOLS**
GROSS SQUARE FOOT MAXIMUM - PROGRAM SPACES

Enter # of Students	900
SF/Student	140.44
Gross SF for Program Spaces	126,400

Career-Technical School
400 students or less, ***169 SF***/student
1000 students or more, ***136 SF***/student



To determine the maximum gross square footage for the Program Spaces enter the number of students.

B. MASTER FACILITIES PLAN SPECIFYING SCOPE AND COST FOR CAREER-TECHNICAL SCHOOLS – *continued*

Due to the unique nature of Career-Technical program spaces, the methodology for determining space (square footage) requirements for program areas is different than the methodology used for core academic areas.

The space requirements for program areas is program driven: Each of the Career-Technical Programs recognized by the Ohio Department of Education is assigned to one of seven Program Types which outlines the general lab space, general support spaces, and program specific support spaces identified for a given Career-Technical Program.

The space requirements for the core academic areas of a stand-alone Career-Technical facility is student population driven: Much like the methodology in the K-12 OSDM, the number of students in a facility drives the space requirements for core facilities including areas such as academic classrooms, science & computer labs, administration, media centers, dining & kitchen areas, custodial & general service spaces.

Because of the unique challenges presented by Career-Technical facilities in developing an appropriate and equitable Program of Requirements (POR), there are several guidelines adopted by the OSFC to manage the development of the POR and the subsequent facilitation of a funding level for a given project.

B. MASTER FACILITIES PLAN SPECIFYING SCOPE AND COST FOR <u>CAREER-TECHNICAL SCHOOLS</u> – *continued*

Example of a High School Master Facilities Plan including Career-Technical Areas

When additions are highlighted for an existing school, this is an indication these additions are to be demolished.

Assessment summary

Number of students to be housed in facility by grade group and allowable square feet

Estimated project cost based on square footage by grade group

	New Comprehensive HS
Building Program	New High
Cost Set	
Assessing Consultant	
Type	High
Acres	
Grades Housed	
Current Enrolment	
Additions to Demolish	
Grades Housed - Proposed	9-12, CT Low Bay Comprehensive, CT High Bay Comprehensive
Projected Enrollment	541
CT Projected Enrolment	546
Scope of Work	Build New
OEPI Rating	
Existing ft² Cost/ft² (DM)	
Cost to Replace	$0.00
Cost to Renovate Reprogramming	$0.00
Renovate+Replace	
Right Replacement	
Right Reno	
Addition Required	No
	New ft²
Elementary (PK-5)	
Projected Enrollment	
ft²/Student	
ft² Required	
Middle (6-8)	
Projected Enrollment	
ft²/Student	
ft² Required	
High (9-12)	
Projected Enrollment	541
ft²/Student	166.00
ft² Required	89,806
Career Technical Core Space	
Projected Enrollment	546
ft²/Student	96.04
ft² Required	30,100.0
Total ft² Required	122,939.8
ft² Existing	
Oversized ft² Less Oversized ft²	
CT ft² Existing	
CT ft² Not Programmed	
Less CT ft²	
Addition ft²	122,940
Cost per ft²	*see below*
Total Addition Cost	
	Cost to Rebuild
Elementary (PK-5)	
Total ft² Required	
Cost/ft² (DV)	
Cost to Rebuild	$0.00
Middle (6-8)	
Total ft² Required	
Cost/ft² (DV)	
Cost to Rebuild	$0.00
High (9-12)	
Total ft² Required	122,939.0
Cost/ft² (DV)	$203.60
Cost to Rebuild	$25,030,543.28
Career Technical Program Space	
CT Existing ft²	37,928.32
CT New ft²	37,928
CT Total ft²	37,928
CT Program Total	$7,240,190.38
Total Proposed ft²	160,868
Total to Rebuild	$25,030,543.28
Total to Rebuild All Buildings	
Cost to Renovate	$0.00
Total Addition Cost	
Total to Renovate/Add	$0.00
Total Career Technical	$7,240,190.38
Project Cost	$32,270,734.16
Asbestos Abatement	$0.00
Demolition	$0.00
Specific Allowance	$0.00
Page Subtotal	$32,270,734.16
General Allowance	$0.00
Project Agreement LEI	$0.00
Co-Funded Project	$32,270,734.16
Total Project Cost	**$32,270,734.16**

Master Plan Name	New Comprehensive HS
Rank	3999
School District	XYZ Local School District
School District IRN	49999
County	PXYZ County
Cost Region	0 (New Construction Cos. Factor: 100%)
Cost Set	2008
Bracketing Set	2008
Educational Planner	AEC & Associates

Projected Enrollment (10 Yr)

Grade	2012-13	Grade Configurations	Grades	Total	Placed	Remaining
PK	59					
K	238	PK-12	264		547	2100
1	221	PK-5	1400		0	1400
2	210	6-8	700		0	700
3	223	9-12	541		541	0
4	229	PK-8	2100			
5	244	6-12	1241			
6	215	CT	345		345	0
7	254					
8	241					
9	213					
10	226					
11	46					
12	56					
CT Low Bay Comprehensive	238					
CT High Bay Comprehensive	107					
Total	**2986**					

Project Scope:
Build one new 9-12 comprehensive high school

Master Planner Commentary:
The project budget for new buildings shown on this Master Plan anticipates attaining the USGBC (U.S. Green Building Council, Leadership in Energy and Environment Design) Silver (with a preferred points in the Energy and Atmosphere category)

Enrollment projections summary

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.

A. INTRODUCTION

This section provides information for the development learning environment area. It is to be used in conjunction with the planning process and planning concepts section. The learning environment should be planned, developed, designed, and implemented with the learner as the focus of all decisions, direction, and planning initiatives. It should be understood that no "one size fits all" solution exists. Solutions should be flexible, encourage the ability for lifelong learning, and support group, individual, team, and collaborative activities. While every effort should be made to encourage educational facility planning, design, and direction to support the learning facility, the facilities will need to meet the requirements within the Learning Environment Worksheet. The Educational Specifications along with each phase of the design document diagrams, including specific Learning Environment Worksheet areas will be the basis for all phases of Construction Professional (CP) and Ohio School Facilities Commission (OSFC) review and approval.

B. PROJECT COSTS AND SCOPE (square footage)

Project budgets for each and every learning environment are developed the same way.

The number of students served (based upon enrollment projections) times square foot/student (based upon grade configuration and number of students) times cost per square foot (based upon regional cost tables). Student Centered Learning Environments (SCLE), Blended Learning Environments (BLE), Traditional Learning Environments (TLE), and any concepts developed through the planning process must have project costs no greater than traditional facilities, serving the same number of students.

With the variety of spaces available within a facility it is possible to develop planning concepts that reflects less square footage than what is required by a traditional facility. The OSFC will entertain flexibility between square footage and cost per square foot provided the traditionally calculated budget is not exceeded.

Request for a reduction in square feet will be reviewed on a case by case basis.

C. PROGRAM OF REQUIREMENTS (POR) CATEGORIES

As a result of learning environments having all spaces becoming learning areas, the traditional POR has been modified. All of the traditional POR categories are included and combined into four major categories allowing for the creation of spaces to promote a shift in traditional teaching methods. These four areas are: Learning Spaces, Administration Spaces, Physical Education Spaces, and Support Spaces.

The traditional bracketing worksheets used to develop a traditional educational facility is reduced to a single summary page entitled "Learning Environment Worksheet." The Learning Environment Worksheet populates the four (4) learning environment categories based upon the net area developed within the master plan.

Spaces in each category do not necessarily need to be a collection of contiguous square footage.

An example and description of the Learning Environment Worksheet along with the Career Technical POR's is included on the following pages as well as inclusion of a Learning Environment Worksheet excel file on the OSDM CD.

D. SAMPLE (PK-12) HIGH PERFORMANCE LEARNING ENVIRONMENT WORKSHEET (POR)

Sample School District, SAMPLE COMBINATION SCHOOL HPLE

CHAPTER 2: BRACKETING — HIGH PERFORMANCE LEARNING ENVIRONMENT - SUMMARY OF SPACES WORKSHEET

The following worksheet provides a summary of the four major POR categories defined in a "High Performance Learning Environment" project.

Entering the grade configuration, student enrollment, and both "Net" and "Gross" square footage totals from the educational specifications and schematic diagrams (based upon the traditional POR categories) this worksheet summarizes the ALLOWABLE and ACTUAL areas in a HIGH PERFORMANCE LEARNING ENVIRONMENT (HPLE). This worksheet is part of the required submittal for any HPLE project.

COMBINATION SCHOOL

HPLE Worksheet ALLOWABLE			ACTUAL
Enter Grade Configuration	K-12	See Note 1.	K-12
Student Enrollment			
Enter **ELEMENTARY SCHOOL** Student Enrollment	150	See Note 2.	150
Enter **MIDDLE SCHOOL** Student Enrollment	150	See Note 2.	150
Enter **HIGH SCHOOL** Student Enrollment	200	See Note 2.	200
TOTAL Student Enrollment	500		500

SF per student	SF / Student	AREA
SF per **ELEMENTARY SCHOOL** student	137	20,493
SF per **MIDDLE SCHOOL** student	165	24,755
SF per **HIGH SCHOOL** student	197	39,346
Total Gross Square Feet Funded from MASTER PLAN		84,594
Vert. Cir. Area Allowable ■Single Story ○Multistory Building		0
Total Adjusted POR Gross Square Footage		84,594

HPLE POR SUMMARY	SF			
Academic / Special Education / Media / Visual Arts / Music / Technology / Business Education / Family and Consumer Science / Student Dining	[illegible]	[illegible]	See Note 3.	0
Administrative Spaces	2,451		See Note 4.	0
Physical Education Spaces	15,800	MAXIMUM	See Note 5.	0
Food Service Spaces / Custodial Spaces / Building Services	17,963		See Note 6.	0
Facility Total (NET SF)	76,211			0
Construction Factor (11% multiplied by the facility total)	0.11			
Gross Square Feet (GSF) Developed	84,594			0

Difference of GSF developed from GSF allowable (84,594)

Note 1. Enter grade configuration.
Note 2. Enter Student Enrollments for ES, MS, and HS.
Note 3. **MINIMUM SQUARE FOOTAGE REQUIRED** - Includes C-AC Academic Core Spaces, C-SE Special Education Spaces, C-MC Media Center Spaces, C-VA Visual Arts Spaces, C-MU Music Spaces, C-TE Technology Spaces, C-BE Business Education Spaces, C-FCS Family and Consumer Science Spaces, and C-SD Student Dining Spaces derived from total areas developed with traditional bracketing program areas including the ADDITIONAL C-AC-9a Small Group Room, C-AC-13 Multi-use Studio, C-AC-14 Kinesthetic Learning Studio included in the 2011 Design Manual Update.
Note 4. Includes all spaces included in traditional bracketing program areas identified under C-AD Administrative Spaces.
Note 5. **MAXIMUM SQUARE FOOTAGE ALLOWED** - Includes all spaces included in traditional bracketing program areas identified under C-PE Physical Education Spaces.
Note 6. Includes all spaces included in traditional bracketing program areas identified under C-FS Food Service Spaces, C-CU Custodial Spaces, C-BS Building Service Spaces.

HPLE Educational Specification Schematic S.F. Summary

PROGRAM AREA		New SF	Exist. SF*	TOTAL SF	
C-AC	Academic Core Spaces	0	0	0	See Note 7.
C-SE	Special Education Spaces	0	0	0	See Note 8.
C-AD	Administrative Spaces	0	0	0	See Note 9.
C-MC	Media Center Spaces	0	0	0	See Note 10.
C-VA	Visual Arts Spaces	0	0	0	See Note 11.
C-MU	Music Spaces	0	0	0	See Note 12.
C-TE	Technology Education Spaces	0	0	0	See Note 13.
C-BE	Business Education Spaces	0	0	0	See Note 14.
C-FCS	Family and Consumer Science Spaces	0	0	0	See Note 15.
C-PE	Physical Education Spaces	0	0	0	See Note 16.
C-SD	Student Dining Spaces	0	0	0	See Note 17.
C-FS	Food Service Spaces	0	0	0	See Note 18.
C-CU	Custodial Spaces	0	0	0	See Note 19.
	Facility Subtotal:	0			
C-BS	Building Services	0	0	0	See Note 20.
	Facility Total:	0	0	0	
	Facility Total (GROSS AREA)	0	0	0	See Note 21.
Calculated Construction factor		0.00	0.00	0.00	
Minus exist. co-funded Oversize Area from Master Plan			0	-	See Note 22.
Adjusted Existing Area			0	-	
Total Adjusted GSF Developed (without Oversize Area)				0	
Difference of GSF developed from GSF allowable				(84,594)	

Note 7. Enter "New" and "Existing" net square footage totals from schematic diagrams for areas identified in traditional bracketing as **C-AC Academic Core Spaces**.
Note 8. Enter "New" and "Existing" net square footage totals from schematic diagrams for areas identified in traditional bracketing as **C-SE Special Education Spaces**.
Note 9. Enter "New" and "Existing" net square footage totals from schematic diagrams for areas identified in traditional bracketing as **C-AD Administration Spaces**.
Note 10. Enter "New" and "Existing" net square footage totals from schematic diagrams for areas identified in traditional bracketing as **C-MC Media Center Spaces**.
Note 11. Enter "New" and "Existing" net square footage totals from schematic diagrams for areas identified in traditional bracketing as **C-VA Visual Arts Spaces**.
Note 12. Enter "New" and "Existing" net square footage totals from schematic diagrams for areas identified in traditional bracketing as **C-MU Music Spaces**.
Note 13. Enter "New" and "Existing" net square footage totals from schematic diagrams for areas identified in traditional bracketing as **C-TE Technology Spaces**.
Note 14. Enter "New" and "Existing" net square footage totals from schematic diagrams for areas identified in traditional bracketing as **C-BE Business Education Spaces**.
Note 15. Enter "New" and "Existing" net square footage totals from schematic diagrams for areas identified in traditional bracketing as **C-FCS Family and Consumer Science Spaces**.
Note 16. Enter "New" and "Existing" net square footage totals from schematic diagrams for areas identified in traditional bracketing as **C-PE Physical Education Spaces**.
Note 17. Enter "New" and "Existing" net square footage totals from schematic diagrams for areas identified in traditional bracketing as **C-SD Student Dining Spaces**.
Note 18. Enter "New" and "Existing" net square footage totals from schematic diagrams for areas identified in traditional bracketing as **C-FS Food Service Spaces**.
Note 19. Enter "New" and "Existing" net square footage totals from schematic diagrams for areas identified in traditional bracketing as **C-CU Custodial Spaces**.
Note 20. Enter "New" and "Existing" net square footage totals from schematic diagrams for areas identified in traditional bracketing as **C-BS Building Services**.
Note 21. Enter "New" and "Existing" calculated GROSS AREA totals from schematic diagrams developed.
Note 22. Enter existing co-funded Oversize Area from Master Plan.

Ohio School Design Manual — 2014
Ohio School Facilities Commission — 2200 COMBINATION-HPLE

E. SAMPLE (CAREER TECH.) PROGRAM OF REQUIREMENT (POR) SUMMARY WORKSHEET

Due to the unique nature of Career-Technical program spaces, the methodology for determining space (square footage) requirements for program areas is different than the methodology used for core academic areas.

The space requirements for program areas is program driven: Each of the Career-Technical Programs recognized by the Ohio Department of Education is assigned to one of seven Program Types which outlines the general lab space, general support spaces, and program specific support spaces identified for a given Career-Technical Program.

The space requirements for the core academic areas of a stand-alone Career-Technical facility is student population driven: Much like the methodology for K-12, the number of students in a facility drives the space requirements for core facilities including areas such as academic classrooms, science & computer labs, administration, media centers, dining & kitchen areas, custodial & general service spaces.

Because of the unique challenges presented by Career-Technical facilities in developing an appropriate and equitable POR, there are several guidelines adopted by the OSFC to manage the development of the POR and the subsequent facilitation of a funding level for a given project.

POR Guideline

1. The OSFC will develop an enrollment projection for determining the student enrollment.

2. The assessment of existing facilities will take into account Career-Technical Programs that are approved by (not just applied for) the Ohio Department of Education (ODE) for the specific Career-Technical facility.

3. Program spaces and core spaces are considered separately in determining the square footage deficiencies and credits in a POR. Additional space allowed for program areas cannot be applied to core area deficiencies or vice-versa. The final use of existing space is not restricted, however, as existing core space could be converted to program space and vice-versa if it balances with allowable programming guidelines and the efficient disposition of space within the facility.

4. Spaces in existing facilities which are not indicated in the Career-Technical sections as approved and funded core or program spaces will be disregarded in the assessment of a career-technical facility and the development of a fundable POR. For example, adult education only spaces, district administration, county service offices, auditoriums and convocation spaces, etc. will not be included in assessment or determination of net and gross square footage calculations.

5. Core space assessment which determine square footage deficiencies and allowed expansion must address academic classroom requirements first before addressing any other areas of allowed core spaces.

6. As a cap to the POR, the ratio of total students to program spaces must be a minimum of 30:1 for Lab Types 5-7 and a minimum of 50:1 for Lab Types 1-4.

7. As a cap to the development of program and core space requirements, the gross funded square footage indicated in a fundable POR cannot exceed the sq.ft. per student per the Gross Square Foot Allowance Chart on page 2000-2.

8. Program Type 7 covers extraordinary sized programs. The fundable limit for Program Type 7 areas shall be 10,000 sq.ft.

9. Any existing lab space which is assessed at less than 75% of its recommended square footage will be eligible to receive funding for an addition and/or a renovation of other available existing space within the facility. The total fundable square footage is still subject to all other guidelines as listed.

10. The square footage calculations for the master plan are based on the assumption of all day student participation. Deviation from this assumption will be addressed on a case by case basis.

11. The career-technical facility must complete the POR phase of pre-design prior to final acceptance/approval of the Master Facilities Plan. The district has the option of using the OSFC assessment consultant or their selected design professional to complete this phase.

12. Renovations and expansion of core and program spaces in excess of these guidelines must be funded by local initiative in addition to the local + state share of the master plan.

EXAMPLE OF A COMPREHENSIVE HS (NEW COMPREHENSIVE HS) PROGRAM POR

Program of Requirements for New Comprehensive HS (New Comprehensive HS)

SF per Student		
POR SF/Student	109.94	(not to exceed Maximum Allowable)
Maximum Program SF/Student	109.94	(Maximum Allowable)
OSDM Bracketed SF/Student	141.15	

General Info	
Number Of Students Low Bay	238
Number Of Students High Bay	107
Number of High School Students	541
Funded Programs Low Bay (50:1)	4
Funded Programs High Bay (30:1)	3
Career Tech Excess SF	

Square Footage		
Total POR SF	37,928	(not to exceed Maximum Allowable)
Maximum Program SF	37,929	(Maximum Allowable)
OSDM Bracketed SF	48,697	

	Subject Code	Existing Indoor SF	Existing SF	Indoor SF Specified In DM	SF Specified In DM	Existing Lab Percent Of Required	SF Reprogrammed	Reprogramming Cost ($23.62)	Proposed New Indoor SF	Proposed New SF	Cost New	Total Cost	Final SF
Program Type 1													
Administrative/Office Technology	14.0300	0	0	1,520	1,520	0.00%		$0.00	1,200	1,200	$250,668.00	$250,668.00	1,200
Business Management	14.0800	0	0	1,520	1,520	0.00%		$0.00	1,200	1,200	$282,504.00	$282,504.00	1,200
Information Support and Services	14.0210	0	0	1,520	1,520	0.00%		$0.00	1,320	1,320	$276,962.40	$276,962.40	1,320
Interactive Media	14.0240	0	0	1,520	1,520	0.00%		$0.00	1,460	1,460	$306,337.20	$306,337.20	1,460
Program Type 6													
Auto Collision Repair	17.0301	0	0	7,608	7,608	0.00%		$0.00	7,608	7,608	$1,459,062.24	$1,459,062.24	7,608
Auto Technology	17.0302	0	0	9,068	9,068	0.00%		$0.00	9,068	9,068	$1,578,013.36	$1,578,013.36	9,068
Precision Machining	17.2302	0	0	6,858	6,858	0.00%		$0.00	6,858	6,858	$1,137,262.14	$1,137,262.14	6,858
Net Program Space Total		0	0				0	$0.00	28,714	28,714	$5,290,809.34	$5,290,809.34	28,714
Building Services Spaces													
		Existing Indoor SF							Proposed New Indoor SF			Cost($211.56)	Final Sf
Mechanical Electrical 5%		0							1,435.70			$303,736.69	1,435.7
Corridors 14%		0							4,019.96			$850,462.74	4,019.96
Building Services Spaces Subtotal		0							5,455.66			$1,154,199.43	5,455.66
Building Gross Square Footage													
		Existing Indoor SF							Proposed New Indoor SF			Cost($211.56)	Final Sf
Net Program Space + Building Services Spaces (From Above)		0							34,169.66				
Construction Factor (11% Of Additional And Indoor)		0.00							3,758.66			$795,182.11	3,758.66
POR Totals													
		Existing Indoor SF							Proposed New Indoor SF			Cost($211.56)	Final Sf
Net Program		0							28,714			$5,290,809.34	28,714
Regional Cost Factor 100%												$0.00	
Building Services Spaces		0							5,455.66			$1,154,199.43	5,455.66
Construction Factor		0.00							3,758.66			$795,182.11	3,758.66
Total		0							37,928.32			$7,240,190.88	37,928

POR Worksheet

Program of Requirements for New Comprehensive HS (New Comprehensive HS)

SF per Student					Square Footage		
POR SF/Student	109.94	(not to exceed Maximum Allowable)	Number of Low Bay Students:	238	Total POR SF	37,928	(not to exceed Maximum Allowable)
			Number of High Bay Students:	107			
			Number of High School Students:	541			
			Funded Programs Low Bay: 50:1	4			
Maximum Program SF/Student	109.94	(Maximum Allowable)	Funded Programs High Bay 30:1	3	Maximum Program SF	37,929	(Maximum Allowable)
			Low Bay Programs Requiring Funds :	4			
OSDM Bracketed SF/Student	141.15				OSDM Bracketed SF	48,697	
			High Bay Programs Requiring Funds :	3			

POR Planner data
Cost Set: 2008

Program Type 1

14.0300 Administrative/Office Technology ‹ housed in new space

Related Space	Funded Square Feet	Existing Square Feet	Proposed New Square Feet	Cost Per Square Foot	Total
Laboratory	1200		1200	$208.89	$250,668.00
CT-P1-2 Office	120			$208.89	$0.00
CT-P1-3 Storage	200			$208.89	$0.00
CT-P1-4 Other				$0.00	$0.00
Total:	**1,520**	**0**	**1,200**		**$250,668.00**

Reprogrammed SF:

Comments:

14.0800 Business Management ‹ housed in new space

Related Space	Funded Square Feet	Existing Square Feet	Proposed New Square Feet	Cost Per Square Foot	Total
Laboratory	1200		1200	$235.42	$282,504.00
CT-P1-2 Office	120			$212.60	$0.00
CT-P1-3 Storage	200			$212.60	$0.00
CT-P1-4 Other				$0.00	$0.00
Total:	**1,520**	**0**	**1,200**		**$282,504.00**

Reprogrammed SF:

Comments:

14.0210 Information Support and Services ‹ housed in new space

Related Space	Funded Square Feet	Existing Square Feet	Proposed New Square Feet	Cost Per Square Foot	Total
Laboratory	1200		1200	$209.82	$251,784.00
CT-P1-2 Office	120		120	$209.82	$25,178.40
CT-P1-3 Storage	200			$209.82	$0.00
CT-P1-4 Other				$0.00	$0.00
Total:	**1,520**	**0**	**1,320**		**$276,962.40**

Reprogrammed SF:

Comments:

14.0240 Interactive Media ‹ housed in new space

Related Space	Funded Square Feet	Existing Square Feet	Proposed New Square Feet	Cost Per Square Foot	Total
Laboratory	1200		1200	$209.82	$251,784.00
CT-P1-2 Office	120		120	$209.82	$25,178.40
CT-P1-3 Storage	200		140	$209.82	$29,374.80
Other				$0.00	$0.00
Total:	**1,520**	**0**	**1,460**		**$306,337.20**

Reprogrammed SF:

Comments:

Program Type 6

17.0301 Auto Collision Repair ‹ housed in new space

Related Space	Funded Square Feet	Existing Square Feet	Proposed New Square Feet	Cost Per Square Foot	Total
Laboratory	5000		5000	$191.78	$958,900.00
CT-P6-2 Related Classroom	900		900	$191.78	$172,602.00
CT-P6-3 Office	120		120	$191.78	$23,013.60

(POR, continued)

CT-P6-4 Storage	200		200	$191.78	$38,356.00
Related Restroom	68		68	$191.78	$13,041.04
CT-P6-5 Changing Room (one per type 5, 6 & 7)	270		270	$191.78	$51,780.60
CT-P6-6 Tool Crib	550		550	$191.78	$105,479.00
CT-P6-7 Reference Room	200		200	$191.78	$38,356.00
Auto Parts Storage	300		300	$191.78	$57,534.00
CT-P6-8 Other				$0.00	$0.00
Total:	**7,608**	**0**	**7,608**		**$1,459,062.24**
Reprogrammed SF:					
Comments:					
17.0302 Auto Technology ‹ housed in new space					
Related Space	**Funded Square Feet**	**Existing Square Feet**	**Proposed New Square Feet**	**Cost Per Square Foot**	**Total**
Laboratory	5000		5000	$174.02	$870,100.00
CT-P6-2 Related Classroom	900		900	$174.02	$156,618.00
CT-P6-3 Office	120		120	$174.02	$20,882.40
CT-P6-4 Storage	200		200	$174.02	$34,804.00
CT-P6-5 Changing Room (one per type 5, 6 & 7)	270		270	$174.02	$46,985.40
Related Restroom	68		68	$174.02	$11,833.36
CT-P6-6 Tool Crib	550		550	$174.02	$95,711.00
CT-P6-7 Reference Room	200		200	$174.02	$34,804.00
Engine Storage	800		800	$174.02	$139,216.00
Machine Room	900		900	$174.02	$156,618.00
Flammable Material Storage	60		60	$174.02	$10,441.20
CT-P6-8 Other				$0.00	$0.00
Total:	**9,068**	**0**	**9,068**		**$1,578,013.36**
Reprogrammed SF:					
Comments:					
17.2302 Precision Machining ‹ housed in new space					
Related Space	**Funded Square Feet**	**Existing Square Feet**	**Proposed New Square Feet**	**Cost Per Square Foot**	**Total**
Laboratory	3500		3500	$165.83	$580,405.00
CT-P6-2 Related Classroom	900		900	$165.83	$149,247.00
CT-P6-3 Office	120		120	$165.83	$19,899.60
CT-P6-4 Storage	200		200	$165.83	$33,166.00
CT-P6-5 Changing Room (one per type 5, 6 & 7)	270		270	$165.83	$44,774.10
Related Restroom	68		68	$165.83	$11,276.44
CT-P6-6 Tool Crib	550		550	$165.83	$91,206.50
CT-P6-7 Reference Room	200		200	$165.83	$33,166.00
CNC Room	900		900	$165.83	$149,247.00
Inspection Room	150		150	$165.83	$24,874.50
CT-P6-8 Other				$0.00	$0.00
Total:	**6,858**	**0**	**6,858**		**$1,137,262.14**
Reprogrammed SF:					
Comments:					

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.

PARAMETERS FOR DEVELOPING THE POR FOR K-12 FACILITIES

***CAN* MOVE SQUARE FOOTAGE FROM NON-ACADEMIC TO ACADEMIC**

Academic Space
- Core Academic
- Special Education
- Art
- Music
- Family & Consumer Science
- Technology Education
- Business Education

Non-Academic Space
- All other space

25 students/1 classroom is a planning figure, not a student/teacher ratio.

***CANNOT* MOVE SQUARE FOOTAGE FROM ACADEMIC TO NON-ACADEMIC**

Grades PK-5
Size of core academic classroom ***may be reduced*** 10% from square footage in the OSDM

AND

All Grade Levels
Classrooms may be no greater or less than 3% of sizes listed in the OSDM

AND

TOTAL Square Footage for **ALL** *Academic Areas* must **EQUAL or EXCEED** the **TOTAL** listed in the OSDM for that *school level* and *enrollment*

AND

TOTAL Square Footage developed **may vary no more than PLUS 1/10th of one percent (0.001)** or **MINUS 1/2 of one percent (0.005)** the total Square Footage in the Master Facilities Plan

AND

Academic spaces may be reduced up to 10% to accommodate creative learning spaces.

PARAMETERS FOR DEVELOPING THE POR FOR CAREER-TECHNICAL FACILITIES

***CANNOT* MOVE SQUARE FOOTAGE FROM PROGRAM SPACE TO CORE SPACE**

Core Space
- Core Academic
- Special Education

Program Space
- All other space

***CANNOT* MOVE SQUARE FOOTAGE FROM CORE SPACE TO PROGRAM SPACE**

***CAN* MOVE SQUARE FOOTAGE FROM NON-ACADEMIC TO ACADEMIC**

Academic Space
- For example, English, Math, or Science space

Non-Academic Space
- For example, Administration or Custodial space

***CANNOT* MOVE SQUARE FOOTAGE FROM ACADEMIC TO NON-ACADEMIC**

Grades 11-12
Classrooms may be no greater or less than 3% of sizes listed in the OSDM

AND

TOTAL Square Footage for **ALL** *Academic Areas* must **EQUAL or EXCEED** the **TOTAL** listed in the OSDM for that *school level* and *enrollment*

AND

TOTAL Square Footage developed **may vary no more than PLUS 1/10th of one percent (0.001)** or **MINUS 1/2 of one percent (0.005)** the total Square Footage in the Master Facilities Plan

AND

Academic spaces may be **reduced up to 10%** to accommodate **creative learning spaces.**

PARAMETERS FOR FUNDING K-12 FACILITIES

Sources for **Project Cost Local Share**:
- Bond Issue
- Permanent Improvement Tax
- School District Income Tax
- Local Donated Contribution

Basic* Project Cost Calculation** considers:***
- Square footage (SF) and $/SF for grade levels to be housed
- Variation across 9 regions in the state in construction & related costs
- Cost of site utilities & preparation (based on average anticipated conditions)
- Cost of insuring the project until completion
- Partnering sessions
- Professional planning, administration & design fees
- Allowances for security, loose furnishings & technology

Costs Included in the Project

Construction Costs
- Site Costs
- Building Costs
- Furnishings (including playgrounds for elementary)
- Technology infrastructure, telephone system, video distribution system, computer network system
- Construction Contingency

Non-Construction Costs
- Land Survey
- Soils/Environmental Report
- Agency Approval Fees
- Construction Testing
- Printing – Bid Documents
- Advertising for Bids
- Builder's Risk Insurance
- Design Professional Compensation
- Construction Management Compensation
- Commissioning and Maintenance Plan Advisor
- Non-construction Contingency (may include Partnering/Mediation)

PARAMETERS FOR FUNDING CAREER-TECHNICAL FACILITIES

Sources for **Project Cost Local Share**:
- Bond Issue
- Permanent Improvement Tax
- School District Income Tax
- Local Donated Contribution

Basic* Project Cost Calculation** considers:***
- Square footage (SF) and $/SF for students and programs to be housed
- Variation across 9 regions in the state in construction & related costs
- Cost of site utilities & preparation (based on average anticipated conditions)
- Cost of insuring the project until completion
- Partnering sessions
- Professional planning, administration & design fees
- Allowances for security, loose furnishings & technology

Costs Included in the Project

Construction Costs
- Site Costs
- Building Costs
  - Furnishings
  - Technology infrastructure, telephone system, video distribution system, computer network system
  - Construction Contingency

Non-Construction Costs
- Land Survey
- Soils/Environmental Report
- Agency Approval Fees
- Construction Testing
- Printing – Bid Documents
- Advertising for Bids
- Builder's Risk Insurance
- Design Professional Compensation
- Construction Management Compensation
- Commissioning and Maintenance Plan Advisor
- Non-construction Contingency (may include Partnering/Mediation)

PARAMETERS FOR FUNDING, CONTINUED

If the school district elects to proceed with components not listed as acceptable in the OSDM, the school district may proceed with a locally funded initiative in addition to the required local share. Deviations should be discussed with the OSFC staff during the early planning phases of the project.

ELIGIBLE USE OF PROJECT FUNDS

- Advertising for bids
- Agency approval fees
- Allowance for abatement and demolition of facilities to be abandoned by the school district
- Builder's risk insurance
- Building construction costs
- Construction testing
- Data/computer hardware (Head-End)
- Design and construction management fees
- Land survey
- Loose furnishings
- Maintenance plan advisor fee
- Multipurpose field(s) – grading & seeding only
- Partnering (Facilitation Services & Facilities)
- Phasing and Staging Costs
- Printing of bid documents
- Project insurance (Professional Liability Insurance)
- Renovation scope as defined in the Master Facilities Plan
- Softball field(s) – grading only
- Soil borings/Phase I environmental report
- Technology infrastructure and wiring
- ***Commissioning***

NON-ELIGIBLE USE OF PROJECT FUNDS

- Baseball fields
- ***Board offices***
- Bus compounds or garages
- Community outreach programs
- Computers/software
- Consulting services to support property acquisition
- Consulting services (supplemental to the funded architectural design and construction manager services)
- Costs associated with bond sales and other financing arrangements
- Equipment or tool sheds
- Fixed-seating auditoriums and natatoriums
- Legal representation, unless Joint Defense and Confidentiality Agreement approved by the Commission and school district
- Levy support services
- Modular tech equipment
- Multipurpose field(s) – imported fill
- Nature areas
- Off-site utilities
- Running tracks
- Site acquisition and preparation
- Soccer fields
- Sports stadiums
- Tennis courts

NOTE: This list is not necessarily all-inclusive.

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.

A. STATE AND DISTRICT PROJECT AGREEMENT
CLASSROOM FACILITIES ASSISTANCE PROGRAM (CFAP) CALCULATION WORKSHEET

Once the Master Facilities Plan is developed a program specific calculation worksheet will be used to determine the state and local share. For values that change over time, e.g. net bonded indebtedness and assessed valuation, consult with OSFC and bond counsel for the correct figures to use.

These standardized Agreements serves as the basis of the relationship between the school district and the OSFC until the Project Completion Certificate is signed. It has been coordinated with three other documents; the Architect's Agreement with the district, the CM's agreement, and the General Conditions or the Contracts for Construction.

SCHOOL DISTRICT
COUNTY
DATE

MASTER PLAN

Description of Master Plan:	•

CFAP Participant (Segmenting)

Step 1. Assessed Valuation		$ -
Step 2. Net Bonded Indebtedness		$ -
Step 3. Cost of Entire Master Facilities Plan		$ -
Step 4. Required level of indebtedness .05 + [.0002 x (0 percentile** - 1)] of assessed valuation*		4.98% $ -
Step 5. To increase the district's net bonded indebtedness to within $5,000 of the required level of indebtedness, the district would need additional bond debt of:		
	Worth of Local Share	
Step 4:	$ -	
minus Step 2:	$ -	
Total:	$ -	
Step 6. Required percentage of the project costs equals (.01 x basic project costs) x 23 perc 0 percentile**		5.00% ** $ -
Step 7. Amount of Bond issue or Alternative Funding must be the greater of:		
a. **a required percentage of the project costs**		$ -
b. the amount necessary to raise the net bonded indebtedness of the district to within $5,000 of the required level of indebtedness		$ -
c. Therefore, the district's share of the **entire MFP** would be for		$ -
STATE $	0	0%
LOCAL $	0	0% *not including required LFI*
TOTAL $	0	

Step 8. Minimum Local Share Calculation	Assessed Valuation	**Minimum Local Share**
Assessed Valuation x 2.0%	0	$ -
	proposed segment size	local share of proposed segment
	0	-
Is proposed segment > minimum project size?		**yes**

Therefore, the budget for the proposed segment would be:

STATE $	0	0%
LOCAL $	0	0% *not including required LFI*
TOTAL $	0	

Total Segment Cost Including Project Agreement Locally Funded Initiative (PALFI):

STATE $	0	
LOCAL $	0	Includes LFI of: $ 0
TOTAL $	0	

*District's valuation for the year preceding the year in which the Controlling Board approved the project under 3318.04 of the O.R.C.
**Percentile in which the district ranks. (By law, the minimum State share is 5%; therefore, all districts in the 95-100 percentile are shown as 95%).

06/01/13

B. CLASSROOM FACILITIES ASSISTANCE PROGRAM (CFAP) CALCULATION WORKSHEET

SCHOOL DISTRICT
COUNTY
DATE

Draft

Step 1. Assessed Valuation	$	77,975,820
Step 2. Net Bonded Indebtedness	$	-
Step 3. Project Cost	$	29,856,780
Step 4. Required level of indebtedness		5.40%
.05 + [.0002 x (21percentile** - 1)]		
of assessed valuation*	$	4,210,694

Step 5. To increase the district's net bonded indebtedness to within $5,000 of the required level of indebtedness, the district would need additional bond debt of:

	Worth of Local Share	
Step 4:	$	4,210,694
minus Step 2:	$	-
Total	$	4,210,694

Step 6. Required percentage of the project costs		21.00%	**
equals	$	6,269,924	
(.01 x basic project costs) x 21 percentile**			

Step 7. Amount of Bond issue or Alternative Funding must be the greater of:

a. a required percentage of the project costs	$	6,269,924
b. the amount necessary to raise the net bonded indebtedness of the district to within $5,000 of the required level of indebtedness	$	4,210,694
c. Therefore, the district's share would be for	$	6,270,000

STATE	$	23,586,780	79%
LOCAL	$	6,270,000	21%
TOTAL	$	29,856,780	

*District's valuation for the year preceding the year in which the Controlling Board approved the project under 3318.04 of the O.R.C.
**Percentile in which the district ranks. (By law, the minimum State share is 5%; therefore, all districts in the 95-100 percentile are shown as 95%).

C. VOCATIONAL FACILITIES ASSISTANCE PROGRAM (VFAP) CALCULATION WORKSHEET

	SCHOOL DISTRICT		
	COUNTY		
	DATE		
Draft			
Step 1. Project Cost		$	32,721,546
Step 2. Required percentage of the project costs equals			25.00%
(basic project costs x 25 percentile)**		$	8,180,387
Step 3. Amount of Bond issue or Alternative Funding must be the greater of:			
a. **A required percentage of the project costs**		$	8,180,387
b. Therefore, the district's share would be for		$	8,180,387
STATE $	24,541,160		75%
LOCAL $	8,180,387		25%
TOTAL $	32,721,546		

(**Percentile in which the district ranks. By law, the minimum State share is 5%; minimum local share is 25%)

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.