

Facilities Planning for School Library and Technology Centers

SECOND EDITION

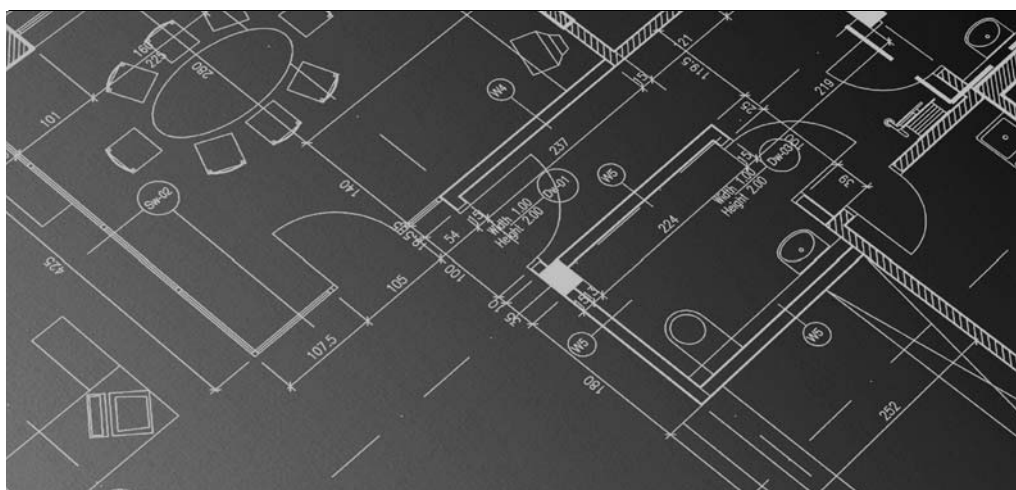


Steven M. Baule

 **Linworth
Books**

Professional Development Resources for
K-12 Library Media and Technology Specialists

Facilities Planning for School Library to Technology Centers, Second Edition



Steven M. Baule



Professional Development Resources for
K-12 Library Media and Technology Specialists

To My Wife and Children *Kathy, Sydney, & Sam Baule*

Library of Congress Cataloging-in-Publication Data

Library of Congress Cataloging-in-Publication Data

Baule, Steven M., 1966-

Facilities planning for school library media & technology centers / Steven M. Baule. -- 2nd ed.
p. cm.

Includes bibliographical references and index.

ISBN 1-58683-294-8 (pbk.)

1. School libraries--United States--Planning. 2. Instructional materials centers--United States--Planning.
3. Library buildings--United States--Design and construction. 4. Instructional materials centers--United
States--Design and construction. 5. School facilities--United States--Planning. 6. Educational technol-
ogy--United States--Planning. I. Title.

Z675.S3B38 2007

027.80973--dc22

2006034179

Published by Linworth Publishing, Inc.
480 East Wilson Bridge Road, Suite L
Worthington, Ohio 43085

Copyright © 2007 by Linworth Publishing, Inc.

All rights reserved. Purchasing this book entitles a librarian to reproduce activity sheets for use in the library within a school or entitles a teacher to reproduce activity sheets for single classroom use within a school. Other portions of the book (up to 15 pages) may be copied for staff development purposes within a single school. Standard citation information should appear on each page. The reproduction of any part of this book for an entire school or school system or for commercial use is strictly prohibited. No part of this book may be electronically reproduced, transmitted, or recorded without written permission from the publisher.

ISBN: 1-58683-294-8

5 4 3 2 1

Permissions

Figure 2.4 Gambell Floor Plan reprinted with permission from Sharon A. Poor, Chief Communications Officer, Fanning/Howey Associates, Inc.

Figure 2.5 Wilson Floor Plan reprinted with permission from Sharon A. Poor, Chief Communications Officer, Fanning/Howey Associates, Inc.

Figure 3.17 New Trier High School Library Bubble Diagram reprinted with permission from Stephen J. Cashman, Cashman Stahler Group, Lombard, Illinois.

Figure 3.18 New Trier High School Library Architectural Drawing reprinted with permission from Stephen J. Cashman, Cashman Stahler Group, Lombard, Illinois.

Figure 3.6 Belinder Elementary Floor Plan reprinted with permission from David Reed, Vice President, Gould Evans Associates, LC.

Figure 3.7 Belinder General reprinted with permission from David Reed, Vice President, Gould Evans Associates, LC.

Figure 7.1 Photo of grand opening of the Shawnee Mission Northwest High School Library reprinted with permission from Lee Anne Neal, Director of Communications, Shawnee Mission School District, Shawnee Mission Kansas.

Table of Contents

Table of Figuresiv

About the Authorvi

Introductionvii

Chapter 1: Getting Started..... 1

 Flexibility..... 2

 Expandability..... 2

 Security 4

 Planning Team..... 4

 Key Team Members..... 5

 Library Advisory Board Members..... 6

 Educational Support Staff..... 7

 Outside Experts..... 7

 Planning for a New School..... 7

 Choosing an Architect..... 7

 Technology Consultants..... 9

 After the Team Is Organized..... 9

 Politics..... 10

 Renovation..... 10

 Work with the Architect..... 10

Chapter 2: First Steps..... 13

 Site Visits..... 15

 Site Visit Questionnaires..... 15

 Needs Assessment..... 16

 Design Discussion..... 17

 Determining Spaces and Areas Needed to Support Services..... 17

 Traffic and Workflow..... 18

 Additional Resources..... 19

 Placing the Library Media Center and Technology Areas
 within the School..... 19

 Proximity to Technology..... 20

 Library Media Computer Labs..... 20

 Expansion Options..... 23

Chapter 3: Specifying Needs..... 25

 Entering the Library Media Center..... 25

 Security..... 26

 Display Space..... 26

 Community Access..... 26

 Open Space Library Media Centers..... 27

 Shelving the Collection..... 27

 Plan for the Desired Collection Size..... 28

 Distributing the Collection..... 29

Table of Contents continued

New Technologies	31
Aisle Width	32
Visibility for Supervision	32
Display Shelving	32
Closed Shelving	33
Student Seating	34
Seating at Tables	35
Table Shapes	35
Table Space	36
A Note on Tables	36
Soft Seating	36
The Circulation or Service Desk	37
Microform Areas (<i>if they are still in the collection</i>)	40
Conference Rooms	40
Story Areas	41
Audio Visual Production Area	41
Traditional Graphics	41
Electronic Graphics	42
Audio Visual or Other Equipment Storage	42
Computer Repair Spaces	43
Open Storage Space	43
Network and Server Spaces	43
Computer Spaces	44
Productivity Software Access	45
Library Media Workroom	46
Library Media Specialist Offices	46
Library Media Staff Break Area	47
Archives	47
Putting the Pieces Together	47
Fine Tuning the Design	50
Furniture	51
Chairs	51
Colors	52
Computer Furniture	52
Furniture Arrangement	54
Enduring Styles	54
Electrical and Data Networking Needs	56
Wireless vs. Wired Networks	58
Cabling	58
Conditioned Power	59
Lighting	60
Natural Lighting	60
Lighting Placement	60
Lighting and the Security System	61

Table of Contents continued

Exit and Emergency Lighting	61
Acoustics and Noise Reduction.	62
Color and Design	62
Signage	63
Directional Signs	63
Location Identification	64
Collection Signage.	64
Chapter 4: Computer Lab Spaces.	65
Presentation Issues in a Computer Lab	76
Computer Supervisory Systems	76
Setting Up a Mobile Laptop Lab.	77
Computer Furniture	79
Ergonomics	79
A Note on Language Labs.	80
Chapter 5: Sample Media Center Layouts	83
Chapter 6: Creating Bids and Timelines	93
RFP's or Bid Documents.	93
Bidding Wiring or Electrical Work	95
Pre-Bid Walkthrough.	95
Contingency Funds	96
Timelines	96
Backward Planning	97
Sample Timeline	98
Chapter 7: Wrapping Up.	99
Moving Out and Moving Back In	99
Packing Up the Media Center	100
Weed the Collection	100
Unpacking	101
The Necessary Communications.	101
Summary	102
Bibliography	103
Library Facilities-Related Web Sites.	105
Glossary	106
Appendices	111
A; Questions to Be Answered During Site Visits	111
B: Library Media Center Programming Document	114
C: Sample Specifications Form for an Area of the Library Media Center	121
D: Computer Lab Programming Document	123
E: Issues to Be Addressed in Bid Specifications.	130
F: Sample Schedule of Values for Computer Equipment	132
G: Common Table and Workstation Sizes and Shapes	133
Index	134

Table of Figures

Chapter 1

Figure 1.1 Sample Team Compositions5

Chapter 2

Figure 2.1 Sample Space Needs17

Figure 2.2 Placement of the Library Media Center Within the School21

Figure 2.3 Middle School Floor Plan21

Figure 2.4 Gambell Floor Plan22

Figure 2.5 Wilson Floor Plan23

Chapter 3

Figure 3.1 Collection Size Guidelines28

Figure 3.2 Shelving Guidelines29

Figure 3.3 Shelf Analysis31

Figure 3.4 Periodical Shelving33

Figure 3.5 Extended Shelving33

Figure 3.6 Belinder Plan34

Figure 3.7 Belinder Actual Photo35

Figure 3.8 Service Desk Functions37

Figure 3.9 Work Surface Heights38

Figure 3.10 Model Circulation Desk39

Figure 3.11 Circulation Desk for a Small Library Media Center39

Figure 3.12 Charge Desk Blueprint40

Figure 3.13 Wall Mounted Rack44

Figure 3.14 Standing Rack44

Figure 3.15 Open Wiring Rack44

Figure 3.16 Open Wiring Rack44

Figure 3.17 Bubble Diagram48

Figure 3.18 Architectural Drawing48

Figure 3.19 Computer Reference Area48

Figure 3.20 Traditional Floorplan49

Figure 3.21 Isometric Drawing49

Figure 3.22 Story Area of the Library Media Center49

Figure 3.23 Types of Standard Chairs52

Figure 3.24 Task Chair52

Figure 3.25 Side Chair52

Figure 3.26 Standard Four Legged Tables53

Figure 3.27 Furniture Edges53

Figure 3.28 Furniture Bid Specs55

Figure 3.29 A Data Drop58

Table of Figures continued

Chapter 4

Figure 4.1 Traditional Lab66

Figure 4.2 Column Lab67

Figure 4.3 Horseshoe Lab68

Figure 4.4 Alternate Horseshoe Lab69

Figure 4.5 Wall Lab70

Figure 4.6 Alterante Wall Lab71

Figure 4.7 Island Lab72

Figure 4.8 “L” Lab73

Figure 4.9 Tiered Layout74

Figure 4.10 Tiered Lab 275

Figure 4.11 Laptop Cart 178

Figure 4.12 Laptop Cart 278

Figure 4.13 Laptop Cart 378

Figure 4.14 PC Mounted Below Table80

Figure 4.15 Numbered Carrels80

Figure 4.16 Language Carrels81

Chapter 5

Figure 5.1 Elementary Library Media Center Layout #184

Figure 5.2 Elementary Library Media Center Layout #285

Figure 5.3 Elementary Library Media Center Layout #386

Figure 5.4 Middle School Library Media Center Layout #187

Figure 5.5 Middle School Library Media Center Layout #288

Figure 5.6 High School Library Media Center Layout #189

Figure 5.7 High School Library Media Center Layout #290

Figure 5.8 High School Library Media Center Layout #391

Figures 5.9 High School Library Media Center Layout #4 Level 192

Figures 5.9 High School Library Media Center Layout #4 Level 292

About the Author

Steven M. Baule, Ed.D., Ph.D., is the superintendent of schools for Community Unit School District 201 in Westmont, Illinois. He was previously assistant superintendent for information technology for the New Trier High School District in Winnetka, Illinois. His professional experience includes classroom teaching and working as a library media specialist, a technology director, and a high school principal. Dr. Baule has also taught graduate courses in education administration, library science and technology management at several midwestern universities. Dr. Baule holds doctorates in educational leadership and instructional technology from Northern Illinois University and Loyola University respectively. He also holds a master's degree in library science from the University of Iowa.

Introduction

If you have picked this book up it is probably because you are about to embark on some sort of facilities project or have been asked to join a planning team.

Congratulations! The experience of designing a new facility can be an incredibly rewarding one! You have taken an important step by beginning to become informed about facilities design and the design process itself. The emotions that you may be experiencing probably run the gamut from *I am totally in over my head!* through *I am not worthy of a new space!* to *I so do not have time for this! How will I get the rest of my job done this year!?* Do not worry; in the end, you will be able to look back upon your facilities planning work with great satisfaction. What you help create will most likely stand the test of time and will still be serving students long after you retire.

This text is divided into several chapters. The first chapter speaks to putting together the planning team and ensuring you have proper stakeholder involvement from the start of the project. Chapter Two outlines the initial steps to take once the team is formed. The next chapters explain the needs assessment process for both library media centers and technology labs. Chapter Five provides sample library media center layouts. Chapter Six presents information about creating bid documents, specifications, and the timelines likely to be followed in any facilities project. Chapter Seven deals with the post planning process of actually moving into the new space.

The appendices include a number of potentially useful documents for the planning team. Sample programming documents to assist in the needs assessment process are provided along with questionnaires to use when making site visits. Criteria for bid specifications are also provided along with a sample computer bid that can be used as a template. A table of common furniture sizes and shapes is included to help with planning. The last section of the book includes a glossary, bibliography of additional resources, and an index.

Good luck in your planning efforts . . .

This page intentionally left blank

Getting Started

Finding out that one is going to be part of a facilities design project is often very exciting. Renovating an old school or building a new school are not projects entered into lightly. After the initial euphoria of being part of such an exciting project, the scope of what must be done can seem overwhelming. Much of today's educational literature is focused on meeting the educational challenges of the new century. However, because school buildings often last more than 50 years, facilities planners need to take even more possibilities into account and plan for a diverse future. If one thinks back to his own school experience, the scenario was most likely rectangular classrooms with the teacher at the front of the class. It was the same for most of our ancestors who were lucky enough to attend formal schooling. Libraries have changed very little in their layout. Books and patron seating have taken up the majority of the space in libraries for centuries. In the recent past, some of the space previously dedicated to books and tables has been replaced by computers and printers.

Three basic reasons exist for embarking on a facilities project in a library media center. The first is growth; the library media center has simply outgrown its present facility. The collection may have outgrown the shelving area available, or an increase in student enrollment may require additional class spaces within the library media center. The second reason is to add additional services or modernize facilities. These are renovation projects that address CD-ROM and OPAC access. Computer workspace for the staff needs to be added. Due to additional community access of the library media center, a new entrance may have to be built. The third reason for a facilities project involves constructing a media center in a new building. These are by far the largest and most complicated facilities projects. They also require the most forethought and planning. New school buildings built today will most likely still be in service in 30 or perhaps even 50 years in the future.

Questions abound when discussing the needs of future facilities. What will the curriculum look like? What will business and industry expect of graduates? Will books still be part of the collection (Some may not like this question, but it is nearly guaranteed to come up in discussions with architects, designers, or board members)? How many computers will an average classroom need? Will there be “average” classrooms? Will students bring in their own computers or will the school provide them? Copper, fiber, or wireless networking? Technology will most certainly continue to infuse itself into the educational process, but in what ways and where?

Flexibility will be a key to success for school facilities in the future. If today’s educational literature is accurate, teachers and students will work in increasingly diverse and complex ways, as the teaching and learning process continues to adapt to better meet each learner’s individual needs. Some of the probable issues affecting education in the near future appear in the box “Issues Concerning the Future of Education.”

Flexibility

The flexibility of the space encompasses more than the simple ability to schedule multiple courses or subjects into a given area. Flexibility needs to be present in the walls, the furniture, the lighting, and the technology infrastructure.

Planning for curricular change and accommodating a wide variety of teaching styles is another key to successful modern facilities. Continual evolution of pedagogical methods, including cooperative learning and problem-based learning strategies, will make it difficult to determine what the average classroom will look like in 10 years. Accommodation for a variety of teacher-led and student-centered learning experiences is important. In addition, library media centers will accommodate larger groups of students as interdisciplinary instruction and team teaching become more widespread. These larger groups will be in addition to an increase in small group study space. All of these requirements will need to be met without a dramatic increase in the library media center’s overall footprint.

Expandability

Expandability is another key to planning modern facilities. This is especially true with technology. The number of computers in schools, whether purchased by the schools or coming in with the students, will increase. When planning for technology, possibilities for future expansion are important within the classroom and the library media center. Placement of the library media center near an outside wall allows for the physical expansion of the library. Allowances should be made for adding future shelving ranges. In addition, the ability to expand is an important planning point for network and cabling infrastructures. Thinking in terms of expanding functions and services is also necessary. What are those services that a library media center may need to provide in five or 10 years that are not required today? Particularly, how can the school service community needs in the future

ISSUES CONCERNING THE FUTURE OF EDUCATION

Bigger Students – the average population continues to get bigger and not only due to obesity. Today's fifth graders do not fit well into desks from 1930.

Block Scheduling at the secondary level – if student free periods either disappear or become limited due to block schedules, student access to library resources must be facilitated outside of the traditional school day or through class visits.

Competition – from third party educational providers, voucher efforts, and home schooling.

Flexible Groupings – students need more access to support materials to enhance curricula that causes more student movement between courses during a term.

Green Schools – there is some desire to work towards more environmentally friendly buildings. These are known as “green schools.”

Inclusion – requires more handicapped compliant furniture, the removal of many tiered spaces, and wider aisles between shelving.

Mobile Furniture – even science demonstration tables are being put on wheels as wireless allows for fewer tethers.

Multiculturalism – library collections should include a larger variety of materials showcasing a more world-wide view of the human experience.

Multiple Intelligences – requires a larger array of support materials with greater diversity of the range of items necessary to support a wider range of teaching methods.

No Child Left Behind (NCLB) – with the increased focus on accountability and standardized testing, any new building or renovation project will need to be able to address the issues raised by the legislation. Some states are also requiring tests to be administered via computer. Such online testing can significantly tax the computer resources in many schools.

1:1 Computing – if a school, district (or even state) is considering providing each student a laptop, space must be made available to repair laptops, allow for wireless access, and provide access to power for the laptops.

Online and Asynchronous Course Delivery – the library media center may become the classroom for some computer-based course delivery or the resource center for students working independently. The resources to create blogs and pod casts may need to be provided.

Security – concerns may finally be the death knell of open campus designs. Students may need to be able to be secured in rooms with locks to mitigate the impact of an intruder.

Team Teaching – the physical space of library media centers has to be flexible so large group instruction can be more easily facilitated.

Universal Pre-School – many elementary schools will need to provide additional spaces and resources for pre-school aged children.

Wireless Networking – requires significant study as to where to locate access points, what kind of security will be required, and how wireless users will access library resources, printers, scanners, or other peripherals.

that today are either not provided or are provided through other government agencies. How can the needs of community groups be met, and those populations generally not served by schools be welcomed into schools? These may include the development of adult education or parent and child education programs for low income or English as a second language programs. The future may bring more extended day tutoring or enrichment programs to schools. Mandatory or free state sponsored childcare programs may change the nature of the student body and require additional types of materials to be collected.

Security

Unfortunately, one other important aspect of modern facilities planning is planning for security. In today's world, an eye towards safeguarding our students cannot be overlooked. Providing increased access for the community requires that security be present outside of the traditional school hours. It should be a given that the design team will at some point review the design with the district's security director or police liaison officer. The library media center is often the focal point of the school building and in today's world, the planning team owes it to both students and staff to review the final design from a security perspective. Security is especially necessary as extended hours are becoming more common in media centers and schools are opening adult tutoring and No Child Left Behind (NCLB) mandated study sessions in library media centers.

Planning Team

Besides all of the concepts enumerated above, it is also possible that the facilities planning team has to deal with administrators, school boards, or possibly others who feel that the library media center could be eliminated in new or renovated schools. They may argue that technology allows all of the world's information to be provided via computer networks. In one recent issue of an educational journal, two articles presented opposite ends of the debate on the future of print libraries. One article clearly stated that Internet access and related online technologies could replace the need for a library media center within a new school. The second article specified that this increase in technology would require school library media centers to be increased in size. Even where the need for a library media center does not have to be argued, the space to provide services in traditional formats may have to be explained and defended. The amount of shelving for the print collection may well be a point of contention among various planners, possibly even splitting the library media staff itself.

At its best, educational facilities planning is an exciting and rewarding experience. It provides a chance to explore the philosophical and educational underpinnings of what a school or school district believes to be important. At its worst, such planning involves late night meetings and scrutinizing electrical blueprints to ensure that each classroom has the correct number of outlets to support the rest of the plan and that the electrical work will still be within budget. As a member of a facilities planning team, one will experience both extremes.