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ABSTRACT

This manual is a reference guide for those involved in school planning, maintenance, repair, and construction funded through the Capital Improvement Program for Delaware public schools. It is an updated version of the previous edition adopted by the state board in May 1991 and presents regulations adopted by the state board. Following each regulation is technical assistance to support it. The manual's main sections address general information, planning, school construction formulas, referenda, sites, plan preparation, bidding and awarding of contracts, minor capital improvement regulations, accounting procedures, emergency procedures, standards, suggested construction materials, satellite school agreements, custodial allocations, and planning sites for school bus safety. (Appendices offer several related forms and checklists.) (EV)

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ED 474 971

STATE OF DELAWARE

SCHOOL CONSTRUCTION TECHNICAL ASSISTANCE MANUAL

BY
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The Delaware Department of Education

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Document No. 945-01/90/10/17

FOREWARD

This School Construction Manual is a reference and guide for those involved in school plant planning, maintenance, repair and construction programmed and funded through the Capital Improvement Program for Delaware Public Schools. It is an update of the previous edition and follows the same format while expanded in content to include the minor capital improvement program, school building maintenance, and vocational equipment replacement programs. References to provisions and specifications contained in Delaware Code are as of the time of writing. For a more detailed and current reading, it is suggested that one consult the code itself.

It is hoped that this manual is a useful tool in planning, programming, and executing the capital improvements that are so necessary to sheltering the activities that constitute the important task of educating the children of our State.

Suggestions for improvements in the manual are always welcome and may be addressed to the Education Associate, School Plant Planning and Maintenance, Department of Education, P. O. Box 1402, Townsend Building, Dover, DE 19903-1402.

ACKNOWLEDGMENT

The time and effort accorded with selfless dedication by the following person to the updating of this manual is gratefully acknowledged.

Ms. Martha Tribbett, Dept. of Education

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DEPARTMENT OF EDUCATION

OFFICE OF SCHOOL PLANNING

SCHOOL CONSTRUCTION MANUAL

DRAFT

FOREWARD

The School Construction Technical Assistance Manual is a reference guide for those involved in school planning, maintenance, repair and construction funded through the Capital Improvement Program for Delaware public schools.

This is an updated version of the previous edition adopted by the State Board on May 16, 1991.

Included in this manual are the Major Capital and Minor Capital Improvement Programs, Vocational Equipment Replacement Program, Satellite Schools and building construction materials.

This manual includes regulations (colored pages) adopted by the State Board. Following the regulation is technical assistance to support each regulation. Unlike the previous version, all Delaware Codes have been removed. Each section has reference to Delaware Code that will guide the reader to the appropriate section in the Delaware School Law Book.

It is the intention that this manual is a useful tool in planning, programming, and executing the capital improvements to renovate and construct the facilities that support education.

Suggestions for improvements in the manual are always welcome and may be addressed to Education Associate, School Planning and Maintenance, P. O. Box 1402, Townsend Building, Dover, DE 19903-1402.

1.0 GENERAL INFORMATION

1.1 Authority

The authority of the Department of Education for the issuing of this manual, and thus setting criteria, standards and regulations dealing with school plant planning, maintenance and construction, is found in 14 Del. Code §§121,122,2002 and 29 Del. Code §§7509-7511,7518.

1.2 Scope

This school plant planning manual relates to all public school facilities (including Charter Schools) whether occupied by children or not. It also relates to all public school facilities constructed in any part with state funds or constructed on state property.

1.3 Interpretation

In the event of a question of interpretation of any of the standards or regulations presented by this manual, the same shall be determined by the Secretary of Education. All references to laws and statutes are current with the preparation of this manual. Where laws or statutes are changed or revised, the latest published version shall apply.

1.4 Responsibility

1.4.1 Responsibility of Local Boards of Education

The responsibilities of the local Board of Education concerning their District's school construction projects are specified in 29 Del. Code §§7519 and 7520. It is also responsible, along with the school administration, to develop and maintain longrange plans concerning school facilities.

1.4.2 Responsibility of Architects and Engineers -

The responsibility for the design of a school building construction project is that of the architect and/or engineer retained by the local Board of Education.

They are also responsible for ensuring that their plans and specifications conform to applicable state, county, city, and local code, rules and regulations, and that all permits and approvals are obtained.

1.4.3 Who May Prepare Plans -

All plans and specifications for school building construction projects must be prepared by an architect or engineer registered to practice in the State of Delaware and within the limits covered by such registration.

Each page of the plans and the title page of the specifications shall bear the seal and signature of the architect and/or engineer who prepared them.

The local Board of Education should make certain, before hiring an architectural or engineering firm, that a Delaware registered architect or engineer is on the staff of the firm so that the above requirement can be met.

1.4.4 Procedure for Hiring Architects/Engineers -

See 29 Del. C., Chapter 69, Subchapter V, which outlines the professional service procurement process is to be followed in hiring an architect or engineer.

1.5 Designation of Spaces

Typical capacity ratings are based on the designation of spaces as specified on the approved floor plans of the school facility. Permanent changes in the use and/or arrangement of spaces that directly/indirectly affect the health, comfort or safety of

the students, or affects the capacity of the building, shall not be made without the review and approval of the Office of School Plant Planning prior to implementation. Local school districts will be responsible to insure that appropriate BOCA, Life Safety, Fire, ADA, etc. codes are in compliance.

1.6 Assistance in Planning and Construction

The State Department of Education staff is available to local school districts at no charge for assistance in the formulation of both short and long range facility plans and construction implementation. Assistance is also available on specific projects within those plans. Districts without building and grounds supervisors are encouraged to contact the State Department of Education for this assistance.

2.0 PLANNING

2.1 Summary of Steps in Construction

A. Recognition and justification of need.

B. Inclusion in Three-Year Major Capital Improvement Program.

C. Approval by Department of Education as a project.

D. Obtain Certificate of Necessity

E. Hold Referendum (may be held anytime after approval of program by the Department of Education).

F. Site Selection and Acquisition.

G. Develop Educational Specifications and obtain approval of the Department of Education

H. Architect/Engineer Selection

I. Prepare Schematics and obtain approval by Department of Education.

J. Prepare Preliminary Drawings and obtain approval of the Department of Education.

K. Prepare Final Drawings and Specifications and obtain approval of the Department of Education.

L. With all required approvals and funding, you may advertise the work, receive bids, and award the contract.

2.2 SAMPLE TIME LINE FOR TYPICAL PPROJECT

Description	Sept.	Oct.	July Yr.1	July Yr.2	Fall Yr.2	July Yr.3	July Yr.4	Sept. Yr.4
Plng. Stage								
Approval by DOE	•----------	---------- •						
C.N. Issued	•----------	----------•						
Ed. Specs.	•----------	----------•						
Hire Architect	•----------	----------•						
Referendum	•----------	----------•						
Schematics Design	•----------	----------•						
Design Stage								
Funding			•----------	----------•				
Final Schematics			•----------	----------•				
Preliminary Design			•----------	----------•				
Final Plans & Specifica.			•----------	----------•				
Construction Phase								
Issue Bid Pkgs.					•-------			
					•			
Review Bids Award Contract						•-------•		
Construction							•----------•	
Occupancy							•	•

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REGULATIONS

2.3 Major Capital Improvement Programs

1. Major Capital Improvement Programs are projects in excess of $250,000.

2. **Procedures for Approval of a Site for School Construction**

   a. Local school districts shall contact the State Department of Education for a site review when they propose to purchase a site for school purposes. All prospective sites shall be reviewed at one time. It is preferable that at least four (4) sites be considered.

   b. The Department of Education will forward all prospective sites to the following agencies for their review and comments. The Department of Education will consolidate the responses of the other agencies in order to review and rank the prospective sites and list all reasons for approval or rejection. The Department shall then notify the school district concerning their final decision.

      (1) State Planning Coordination Office

      (2) The Budget Office

      (3) The Department of Natural Resources and Environmental Control

      (4) The Department of Agriculture

      (5) The Department of Transportation

      (6) The Local Planning Agency having jurisdiction

3. **Educational Specifications, Schematic Plans, Preliminary Plans and Final Plan Approvals**

   a. Educational Specifications are defined as a document which presents to an architect what is required of an educational facility to house and implement the educational philosophy and institutional program in an effective way.

(1) Educational Specifications shall be approved by the local school board and the State Department of Education. The State Department will require ten working days for completion of the review and approval process.

b. All Schematic Plans shall be approved by the local school board and the Department of Education and these approved plans should be sent to the county or city planning office for information purposes only.

c. All Preliminary Plans shall be approved by the local school board and the State Department of Education.

d. All final plans shall be approved by the local school board and the State Department of Education.

e. The local school district must involve the following groups in reviewing these plans prior to the final approval.

(1) Fire Marshal to review the plans for fire safety.

(2) Division of Public Health, Bureau of Environmental Health, Sanitary Engineering for Swimming Pools, and the County Health Unit for information on kitchens and cafeterias.

(3) Division of Facilities Management, Chief of Engineering & Operations for compliance with building codes.

(4) Division of Highways for review of the Site Plan showing entrances and exits.

(5) Architectural Accessibility Board for persons with disabilities.

4. **Certificates of Necessity**

a. The Certificate of Necessity is a document issued by the Department of Education which certifies that a construction project is necessary and sets the scope and cost limits for that project.

b. Certificates of Necessity shall be obtained sufficiently in advance to meet all prerequisites for the holding of a local referendum as it must be quoted in the advertisement for the referendum and shall be issued only at the written request of the local school district.

5. Notification, Start of Construction, Completion of Construction and Certificate of Occupancy

a. The school district shall submit to the State Department of Education and the State Budget Director a construction schedule, showing start dates, intermediate stages and final completion dates.

b. The school district shall notify the State Department of Education, the State Budget Director and the Insurance Coverage Office at the completion of the construction, which is defined as when the school district, with the concurrence of the architect, accepts the building as complete.

c. The school district shall notify the State Department of Education, the State Auditor, and the State Budget Director upon approval of the Certificate of Occupancy.

d. Local school districts shall submit to the Department of Education a copy of the electronic autocad files. Electronic autocad files shall be submitted no later than 30 calendar days after the completion of any major renovation or addition to an existing facility.

6. Purchase Orders

All purchase orders for any major capital improvement project shall be approved by both the State Department of Education and the Director of Capital Budget and Special Projects prior to submission to the Division of Accounting.

7. Change Orders

a. Change orders are changes in the construction contract negotiated with the contractor. The main purpose is to correct design omissions, faults of unforeseen circumstances which arise during the construction process.

b. All change orders must be agreed upon by the architect, the school district and the contractor and shall be forwarded to the State Department of Education.

(1) Submission of a change order must include the following documents: completed purchase order as applicable; Local Board of Education minutes identifying and approving the changes; completed AIA document G701; correspondence which gives a breakdown in materials, mark-up and other expenses; and, if not contained in any of the preceding, an explanation of need plus any drawings needed to explain the requested change.

8. Transfer of Funds Between Projects

(a) The transfer of funds between projects during the bidding and construction process shall have the written approval of the State Department of Education. Acceptability of the transfer of funds will meet the following criteria:

(1) No project may have more than 10% of its funding moved to another project. For example - no more than $10,000 could be transferred from a $100,000 project to any other project.

(2) No project may have more than 10% added to its initial funding. For example - no more than $10,000 would be transferred from all other projects to a project originally budgeted at $100,000.

9. Educational Technology

All school buildings being constructed or renovated under the Major Capital Improvement Program shall include, in the project, wiring for technology that meets

the Delaware Center for Educational Technology standards appropriate to the building type, such as high school, administration, etc. The cost of such wiring shall be borne by project funds.

10. Administration of the New School

The principle administrator of a new school may be hired for up to one (1) year prior to student occupancy to organize and hire staff. The State portion of salary/benefits may be paid from Major Capital Improvement Programs.

2.4 Three-Year Major Capital Improvement Program

Fiscal planning by the State of Delaware is on a three-year cycle. Capital outlay is generated by the three-year Major Capital Improvement Program. Request forms for Major Capital Improvement Projects are sent to each school district in the spring. The program submission is due in the School Plant Planning Office by mid-June. Base line assets should be calculated using the School Capacity Formula in Section 3.16.

The submission will consist of three forms.

A. **REQUEST FOR APPROVAL OF MAJOR CAPITAL FUNDING**: Each project will be submitted in disc format. A complete/concise description of the work to be performed to enhance project justification is strongly recommended. For new construction request use square footages from construction formulas in Section 7, 3.4-3.6 of this manual. For renovations/modernization, request detailed information justifying the need plus proposed solutions should be provided. Projects exceeding 50% of replacement must include rationale for retention.

B. **SUMMARY OF PROJECTS FORM**: Summarize all projects in order of fiscal year for FY _XX_ through FYXX+2. You will note that the forms reflect a three-year planning cycle. This change is based upon the current administration's concept of reviewing Major Capital Improvement requests over a three-year planning cycle. Only those requests listed for the first year will be considered for funding. Do not include projects already fully authorized by legislation. Do include follow-up on portions of split-funded projects.

C. **AGREEMENT FORM**: Complete three of these forms indicating local board of education approval and referendum plans. This form specifies that the local board of education has reviewed the district's requests and further agrees to hold a referendum, if required.

(Note: Sample of these forms may be found in Appendix B of this manual).

2.4.1 **Review of Three-Year Major Capital Improvement Program** - Starting in June of each year, the Office of School Plant Planning will meet with each district making a request in the Major Capital Improvement Program. The Office of School Planning in conjunction with local school districts will review the request and evaluate the rationale for justification.

2.4.2 **Approval of Three-Year Major Capital Improvement Program** - The Secretary, in consultation with the State Board of Education will review the major capital improvement program, in September of each year. Final approval will occur in October. Each district making a request will be notified by the Office of School Plant Planning of the decision of the Department of Education. The district will have ten days to file a written request for reconsideration if it disagrees with the program as approved by the Department of Education. Requests for reconsideration will be reviewed at the November meeting of the Department of Education.

2.4.3 **Presentation of the Three-Year Major Capital Improvement Program to the State Budget Office** - During the month of November, representatives of the Department of Education will present the Three-Year Major Capital Improvement Program requests to the State Budget Office. State Budget Office formulates the Three-Year Major Capital Improvement Program for all state agencies and presents it to the Governor. (Suggestion: This is the appropriate time to contact City and/or County Planning and Zoning of your plans and to determine their requirements for approvals.)

2.4.4 Certificate of Necessity - The Certificate of Necessity is a document issued by the Department of Education which certifies that a construction project is necessary and sets the scope and cost limits for that project. The Certificate of Necessity must be obtained sufficiently in advance to meet all prerequisites for the holding of a local referendum as it must be quoted in the advertising for the referendum.

2.4.5 Projects eligible for Certificate of Necessity - To be granted a Certificate of Necessity a project must meet the following requirements.

A. The project must have the approval of the Department of Education. Approval by the Department of Education is granted only for projects in the pending fiscal year. Certain renovation projects may be granted planning approval by the Department of Education prior to being included for funding.

B. Projects estimated to exceed the Minor Capital Improvement Cost Limitation (See paragraph 8.4) or increasing the size of the school plant should be in the Major Capital Improvement Program.

C. Projects may be consolidated together to form a single Major Capital Improvement project. However, the consolidated major capital project should be a consolidation of projects at one location.

2.4.6 Certificates of Necessity will be written within the following limitation -

A. Projects proposing the construction of a new building or for an addition to an existing building that is not done in conjunction with renovations in the remainder of the building will be issued a separate Certificate of Necessity. Funds issued under this Certificate of Necessity cannot be transferred between projects.

B. Renovation projects and additions to existing buildings, when done in conjunction with renovation projects in the remainder of the building, may be combined into

one program and issued a single Certificate of Necessity. However, when the Certificate is issued, it must identify each building in the program, a description of the work to be done in that building, and a dollar amount for work. Transferring of funds between projects during the bidding and construction process will need the written approval of the State Office of Plant Planning and Maintenance. Acceptability of the transfer of funds will meet the following criteria.

(1) No project may have more than 10% of its funding moved to another project. (Example-no more than $10,000 could be transferred from a $100,000 project to any other project.)

(2) No project may have more than 10% added to its initial funding. (Example - no more than $10,000 would be transferred from all other projects to a project originally budgeted at $100,000.)

2.4.7 Procedure for Requesting Certificate of Necessity -

Certificates will be issued only at the written request of the School District.

A. Project needs to have been approved by the Department of Education.

B. Write letter to the Office of School Plant Planning requesting that Certificate of Necessity be issued.

C. The Office of School Plant Planning will fill out certificate in accordance with Department of Education approval of the project and forward it to the district for concurrence.

D. A copy of the Certificate of Necessity will be sent to the district (approximately one week) after Department of Education's approval..

2.4.8 Revision of Certificate of Necessity

A Certificate of Necessity may be revised upon action by the Department of Education until:

....a successful referendum is held if the project is state/local funded.

....final plans are approved by the Department of Education if 100% State funded

2.5 Referendum -

The referendum for the local share of school construction projects should be held after the project has the approval of the Department of Elections and before the passage of the Bond Bill. The local district must secure approval of a referendum date from the Department of Education. If a local referendum for any project is not passed prior to the writing of the Bond Bill, the project will not be considered for funding in that fiscal year's program cycle.

2.6 Educational Specifications

2.6.1 Definition of Educational Specifications -

A document which presents to an architect what is required of an educational facility to house and implement the educational philosophy and instructional program in an effective way.

2.6.2 Suggestions to Include in Educational Specifications -

A. Introduction

(1) Community

The schools exist to educate and build the children of a community; therefore, the curriculum must be in harmony with the goals and aspirations of the community. The emphasis of education should be on creativity, appreciation of the arts, development of research skills, athletic competition, environmental awareness, and self discipline. Through this curriculum the children learn to service the community. The overall educational programs may be similar but due to differences in student needs and design theories, educational facilities could vary greatly with respect to shape and size. Consistently, educational facilities will be designed to promote pride of ownership and enhance the educational process encompassing the communities rich history, surrounding landscape and community aspirations.

(2) Population Data

Historical data and projections on the community, school age, number of pupils and grade levels to be housed.

B. Educational Plans

(1) Instructional philosophy and goals statement

(2) Instructional methods

(3) Staffing requirements

C. Description of Activity Areas

(1) Instructional areas

Each instructional area should be presented as a separate unit containing the following information:

(a) Philosophy of Area
1- Goals
2 - Objectives

(b) Philosophy of Area
1- Total number of students to be served by area
2- Number of students in area at a given time
3- Number of teachers and skills required of teachers in this area

(c) Activities in the area and facilities required
1- A list of the activities which will be carried on in each portion of the area.
2 - A list of spaces required showing function and approximately size in Sq.Ft.
3 - Ancillary spaces for area (for example: offices, storage, etc.).

(d) Space relationships
1 - Within area
2 - Area within total facility

(e) Furniture and equipment
1 - Type of furniture required
2 - Any equipment required

(f) Special requirements
1 - A list of any special requirements in the area such as specialized plumbing, lighting, wiring or equipment.

(2) Support Areas

Each support area, such as Administrative Center, Health Services, Guidance, Library, Cafeteria, etc. should be presented in approximately the same format as the instructional areas.

D. General Building Considerations -

(1) Size and space summary - describe the physical size of the building including a summary of the size of all areas mentioned in the previous sections. This should not exceed the standard state school construction formula unless it is the district's intention to fund the excess locally.

(2) Design - describe the general architectural design and style of the building, expansion capabilities and the designs effect on the educational process and atmosphere.

(3) Space Relationships - this section should contain a statement concerning the relationship of one area with another. Adjacency diagrams representing each area is a convenient way to accomplish this objective..

(4) Environmental requirements - this section should describe each of the main environmental factors in the facility: thermal, visual, color and acoustical.

(5) Life safety/fire protection considerations - describing the life safety and fire protection system to be utilized in the building design.

(6) Other building considerations - a description of any considerations not mentioned in any other section such as community use of facilities, energy efficiency, educational technology and its effect on the teaching process, including expanded use of the same, architectural accessibility, special education students and their supporting needs.

(7) Outdoor considerations - a statement of the nature and extent of outdoor facilities such as athletic fields, parking, access roads, outdoor lighting, outdoor storage, walkways and landscaping.

(8) Material restrictions - asbestos/asbestos-containing materials; PCBs, mercury containing Latex paint, and lead containing solder, potable water system components, protective coatings are prohibited or severely restricted. Note: Ed Specs are not required for additions or renovations.

(9) Infrastructure: Describe all pertinent items that effect the security, safety and health of the children and their effect on the educational process (eg. HVAC, electric, roof, structure, water, sewer).

2.7 Schematic Plans

Schematic drawings present a proposed facility in its simplest form. The first schematic may be nothing more than a bubble diagram denoting the approximate size and relationship of areas to each other. After several refinements the schematics will be simple linedrawings showing the outline of the building, the size

and shape of each area within the building and perhaps some simple sketches of the exterior. No utilities or mechanical functions are shown at this stage so that this is the easiest time to make changes in size or shape, and location of spaces.

2.8 Preliminary Plans (Design Development Plans)

Preliminary plans are started after the schematics have finalized the size, dimensions and location of spaces within the building. Preliminary drawings are concerned with mechanical functions, placement of windows and doors, traffic circulation both interior and exterior, utilities, service areas and structure. These are the things which are easiest to change in the preliminary plan stage. There should also be a well developed site plan at this point.

2.9 Final Plans (Working Drawings)

Final plans show the complete facility design including mechanical, electrical, water, sewer and structural system, complete bid documents and specifications. Changes in the final plans are usually only a refinement of what is showing in the preliminary plans.

3.0 SCHOOL CONSTRUCTION FORMULAS (A Guide for Space Allowances)

General Information

Pursuant to 14 Del. Code §2002, the following guide for space allowance has been developed. The space allowances shown on the formulas for Senior High School (Section 3.3), Middle Schools (Section 3.5), Junior High Schools (Section 3.4), Elementary Schools (Section 3.6), and Special Schools (Section 3.7) are suggested as guides for planning purposes when a school is built, and shall be limiting only in the total square feet for a building. Flexibility within the total square footage will be permitted providing the district can demonstrate that the kinds and amounts of space planned will house the educational program, the required number of pupils for that building and facilitate the learning process..

3.1 Building which exceeds the School Construction Formula -

Nothing in the Delaware Statutes or this manual prohibits a school district from constructing a facility which exceeds the standard school construction formula. However, the cost of the additional square footage is the sole responsibility of the local district. (See Section 4.3 for referendum ballot which must be used in this situation.)

3.2 Funding Based on State School Construction Formula -

The dollar amount provided for a school construction project is determined by the square footage allocated by the School Construction Formula times a cost per square foot. Calculation of total funding is (cost per square foot) X (square feet allocated by formula). Except for site acquisition, the cost per square foot is an all inclusive or "Turn Key Figure". It is expected to cover fees, construction cost, site development, furniture and equipment.

3.3 Auditorium Size

Each school district with a secondary school may construct one auditorium to accommodate the full enrollment of a school building. Any other secondary school in the district may have an auditorium facility with seating capacity to seat 1/3 of the enrollment but not less than 300 seats, and 4,800 sq. ft. A school district entitled to a large auditorium may choose for program purposes to construct a small auditorium using the remaining auditorium space allowance to meet other program needs. The district thus waives entitlement to a full enrollment auditorium.

3.4 INTERMEDIATE STAGE

ELEMENTARY SCHOOL SPACE FORMULA

CAPACITY	360		480		600		720		840	
	#		#		#		#		#	
Classrooms @ 900 sf	14	12,600	19	17,100	23	20,700	28	25,200	32	28,800
Kindergarten @ 1,150 sf	1	1,150	1	1,150	2	2,300	2	2,300	3	3,450
Multi-Purpose Rm. (Cafe,Kit,PE,Guid,Etc.)		4,400		4,600		8,350		9,000		9,700
Library/Media Ctr.		840		1,000		1,200		1,400		1,600
Admin.		875		920		1,115		1,250		1,600
Health/Nurse		300		485		500		600		750
Conference Rm.		200		300		300		300		300
Facilty Work Rm.		150		150		180		180		180
Facility Lounge		250		300		300		300		360
Art		860		900		900		900		900
Music				900		900		900		900
Pupil Work Area @ 25 sf		375		500		625		750		875
Storage @ 70 sf		1,050		1,400		1,750		2,100		2,450
Restrooms @ 45 sf		675		900		1,125		1,350		1,575
Svc. Sys. & Util. @ 66 sf		990		1,320		1,650		1,980		2,310
Corridors @ 240 st		3,600		4,800		6,000		7,200		8,400
8% Walls/Partition		2,262		2,938		3,832		4,463		5,130
Outside Storage		250		250		250		250		250
Total		30,827		39,913		51,977		60,423		69,530
SF/Pupil		85.6		83.2		86.6		83.9		82.8

3.5

INTERMEDIATE STAGE

MIDDLE SCHOOL SPACE FORMULA

CAPACITY	500		700		1,000		1200		1,600	
	#		#		#		#		#	
Classrooms @870 sf	13	11,310	18	15,660	25	21,750	30	26,100	40	34,800
Library/Media Ctr.		2,020		2,990		4,110		4,760		5,960
Health/Nurse/Wellness		1,000		1,000		1,100		1,200		1,200
Phys. Ed. (Gym)		8,000		9,000		11,000		13,000		15,000
School Lunch		3,300		4,900		5,800		6,300		7,000
Guidance		500		600		700		800		1,000
Science		3,800		5,400		7,600		8,700		10,760
Tech Ed/Exploratory		6,720		8,923		12,147		14,867		16,000
School Based Alternative		870		900		1,350		1,800		2,250
Pupil Activities		435		870		870		870		870
Teacher Rooms		400		700		700		700		700
Auditorium		7,040		6,500		8,400		9,450		12,075
Computer Lab		870		870		870		870		870
Perm. Obstruc. @70 sf.	44	3,080	54	3,780	71	4,970	81	5,670	103	7,210
Spec. Ed. (5% of Cap. @33sf)	25	825	35	1,155	50	1,650	60	1,980	80	2,640
Admin.		700		1,500		1,500		2,100		2,800
Sub-Total		50,870		64,748		84,517		99,167		121,135
Toilets, Corridors, Walls Util. Rms. & Srvs. @33%		16,787		21,367		27,890		32,725		39,976
Total		67,657		86,115		112,407		131,892		161,111
Outside Storage		500		500		500		500		500
Grand Total		68,157		86,615		112,907		132,392		161,611
SF/Pupill		136.3		123.7		112.9		110.3		101.0

3.6

INTERMEDIATE STAGE

HIGH SCHOOL SPACE FORMULA

CAPACITY	500		700		1,000		1,200		1,600	
	#		#		#		#		#	
Classrooms @840 sf	13	10,920	18	15,120	25	21,000	30	25,200	40	33,600
Library/Media Ctr.		2,500		2,990		4,100		4,700		5,960
Computer Lab		840		840		840		840		840
Health/Nurse		1,000		1,000		1,100		1,200		1,200
Phys. Ed.		10,866		10,973		21,409		21,514		25,532
Cafe & Kitchen		3,300		4,900		5,800		6,300		7,000
Art		1,800		1,800		3,200		3,500		4,000
Home-Making		2,500		2,750		3,000		3,500		4,000
Music		1,996		2,344		2,892		3,492		3,492
Acoust. Treated Rm.		108		108		108		108		108
Guidance		600		750		900		1,050		1,300
Science		5,380		7,000		8,840		10,680		13,700
Business Ed.		4,000		4,000		5,000		5,000		6,200
Language Lab		700		700		700		1,400		1,400
Tech Ed.		3,500		4,900		6,200		6,200		8,600
School Based Alternative		840		840		1,260		1,680		2,100
Pupil Activities		500		840		840		840		840
Teacher Rooms		400		700		700		700		700
Auditorium		6,700		8,800		10,000		10,000		13,000
Room Obstruct. @68sf	42	2,856	52	3,536	68	4,624	78	5,304	99	6,732
Admin.		800		1,500		1,500		2,100		2,800

Srvs.	15,208	19,387	29,580	32,255	40,640
Vo. Ag.	5,213	5,254	5,504	5,504	5,504
Spec. Class (Self-Contain)	1,500	2,520	3,168	3,168	4,620
Distrib. Ed.		1,512	1,980	1,980	1,980
Outside Storage	750	750	750	750	750
Total	84,777	105,814	144,995	158,965	196,648
SF/Pupil	169.6	151.2	145.0	132.5	123.0

3.7 Original Special School Space Formula

NUMBER OF PUPILS	100	120	150	200
Teaching Areas	7,200	9,000	10,800	14,400
Classroom Equivalents	(9)	(10)	(12)	(16)
Cafeteria	1,000	1,000	1,200	1,400
Stage	600	600	800	800
Kitchen	600	600	700	800
Gym	2,250	2,500	3,000	4,000
Administration	420	420	420	420
Health Suite	1,200	1,400	1,600	2,000
Conference	250	250	300	300
Teachers' Workroom	150	150	175	250
Teachers' Lounge	300	300	350	500
Storage @70 sf per Teaching Space	560	700	840	1,120
Lavatories @45 sf per Teaching Space	360	450	540	720
Corridors @240 sf per Teaching Space	1,920	2,400	2,880	3,880
Service/Utilities @66 sf per Teaching Space	528	660	792	1,060
Pre-Occupational Shop	1,250	1,250	1,600	2,000
Subtotal	18,588	21,680	25,997	33,650
Walls @8%	1,487	1,734	2,079	2,692
TOTAL	20,075	23,414	28,076	36,342
Sq.Ft. Per Pupil	201	195	187	181

3.8 Administration Building Space Formula

Number of full state teacher/pupil units_____

Staff Areas	Square Feet Allowed	Number of Staff	Total Square Feet Allowed
Superintendent	250	_____	_____
Assistant Superintendent to each full 300 state units	200	_____	_____
Directors - one for first full 200 state units and one for each additional full 100 state units	180	_____	_____
Administrative Assistant - one for each reorganized school district	180	_____	_____
Supervisors - one for each full 150 state units	140	_____	_____
Speech & Hearing Therapist - one for each full 140 state units	140	_____	_____
Visiting Teacher - one for each full 250 state units	70	_____	_____
Supervisor of Transportation - one for 7,000 pupils transported	140	_____	_____
Supervisor of Grounds & Bldgs. - one for 95 or more bldg. units	70	_____	_____
Supervisor of Food Services - one for 4 or more schools	70	_____	_____
Clerical - one for each staff member listed above	120	_____	_____

Service Areas	
School board and Conference Room	600
Reception - lobby	300
Work Rooms - mail, duplicating, etc.	1000
Storage & Vault	600
Staff Lounge & Kitchenette	200
Toilets	100
Professional Library & Materials Center	800
Business Offices & Data Processing	1000

Corridors, Walls, Mechanical Room,
etc. - 10% of above

Total Square Feet _____ @ $_____/Sq. Ft. $_____

Site: _____Acre(s) @ $_____/Acre $_____

(3/78 Revised Title 14 §1321(e)

3.9 **Determination of Square Footage for School Size Not Listed in Formula**

3.9.1 Not every size school is listed in the school construction formula. The method for arriving at square footage authorization for schools not listed is as follows:

1. Find nearest size school in formula. (Example: to find size of 900 pupil Jr. High School, nearest size in formula is 1000 pupil Jr. High School.) If desired school is equidistant between two given sizes, use larger size.

2. Find square feet per pupil allowed for that size school. (1000 pupil Jr. High School allows 113 sf per pupil).

3. Find difference between desired size school and listed size school. (1000-900 = 100 pupil difference.)

4. Multiply difference x square footage allocation. (100 pupil difference x 113 sf per pupil = 11,300 sf difference.)

5. Add or subtract square footage difference from formula square footage total to calculate size or school needed. (113,342 square feet allowed for 1000 pupil Jr. High - 11,300 square feet calculated in 4 above = 102,043 sf for 900 pupil Jr. High School.)

3.10 Renovation, Modernization and Additions

Definitions: "School Construction" as defined in 29 Del. Code 7501.

3.11 Major Capital Improvement Building Guidelines

A. Whatever is allowed in new construction is allowed in school construction provided that all other conditions outlined in these guidelines are met.

B. The cost of school construction (including additions) should not exceed 50% of the cost of new facilities. Any such project will be considered on a case by case basis taking into account such factors as location, cost of site acquisition, structure, condition of the affected facility, exceptional features of the affected facility e.g. outstanding auditorium, gym, etc., historic significance, and student capacities, present and future.

C. Projects undertaken to meet legislative action, codes, Dept. of Education regulations and legal requirements will be considered as exceptions to these guidelines.

D. Energy conservation measures, such as, upgrade of heating plants or relighting to increase efficiency will be considered on a "life cycle" cost basis even though they may not meet other requirements of these guidelines.

E. In all School Construction, high priority should be given to infrastructure systems, their energy efficiency, and the effect on the educational process. Initial combustion efficiency of oil or gas fired heating systems should be 85% or better and the power factor for the electrical system should be .90 or above. Seasonal Energy Efficiency Ratings (SEER) on air conditioners should be at least 10.

F. Educational spaces defined in the school construction formula may be used as a guide for considering additions or alterations/modifications THAT DO NOT MEET THE STANDARD SET BY THE STATE DEPARTMENT OF EDUCATION.

G. Architectural accessibility standards must be met as part of a major capital improvement project. This requirement does not apply if the project does not affect access to the facility and its functional areas e.g. roof repairs, window replacement, painting, etc.

H. Insure that new construction and upgrading meet standards of fire protection/prevention, safety, health, and environmental protection. Athletic/recreational facilities have definite standards, industrial shops require specific safety features, the State has promulgated statutes regarding energy efficiency including a lighting "budget", and there are prohibitions on asbestos, lead, formaldehyde, and PCBs to mention a few.

3.12 Site Development/Improvement Guidelines

A. In situations where changing residential patterns necessitate the addition of site improvements, such as, additional sidewalks or steps, the building must have been occupied at least five years to be considered and the condition must not have existed during the first year of occupancy. These improvements must be on the school site. No consideration will be given to requests for improvement not on the school site.

B. When additions are made to the site of an existing school, the work necessary to create a level, usable area will be considered. This includes but is not limited to filling, grading, drainage, retaining walls and seeding. It does not include such things as fencing, roadways, parking or the development of athletic facilities, such as, stadiums, backstops or dugouts.

C. The development or redevelopment of athletic fields will not be considered unless as part of a major modernization.

3.13 Areas Included in Gross Usable Square Footage -

D. Classrooms

B. Laboratories

C. Health & Music Suite

D. Cafeteria

E. Kitchen including food storage

F. Art rooms

G. Music room including practice rooms

H. Guidance suites

I. Counseling rooms

J. General offices

K. Pupil activity rooms

L. Storage which is a part of a classroom

M. Physical Education Facilities including dressing, dryer, shower, and locker rooms.

N. Shops including office, storage, finishing, tool rooms and changing rooms.

O. Teacher work areas

P Commons area

Q. Seminar rooms

R. Audion

S. Auditorium including stage & work rooms, lobby and storage

T. Teacher lounges

U. Activity

V. Portable classrooms

3.14 Area Excluded from Gross Usable Square Footage -

A. Corridors

B. Restrooms

C. Receiving rooms

D. School storage rooms

E. Boiler rooms

F. Custodial closets

G. General storage rooms

H. Garages (unless part of shop)

I. Walkways which are completely enclosed

3.15 Areas Not Counted in Gross Square Footage -

A. Covered walkways

B. Crawl space

C. Unexcavated space

D. Pipe chases

E. Portable classrooms

3.16 SCHOOL STAFFING FORMULAS - DELAWARE CODE - FY98

STAFF	FORMULA
Superintendent	1 per district
Assistant Superintendents	1 - 300 units (maximum of 2 except in NCC districts)
Directors	1 - first 200 units 1 - each additional units (maximum of 6 except in NCC)
Administrative Assistant	1 per district
Supervisors*	1 - 150 units
of Transportation*	1 - 7,000 or more pupils transported except NCC
of School Lunch	1 - 4 or more cafeterias in district except NCC
Principals	1 per school of 15 or more units
Assistant Principals	1 - 1 asst. principal when unit count reaches 30 units; 2nd asst. principal at 55 units; one asst. principal per 20 additional units thereafter
Psychologists*	1 - 150 units
Speech & Hearing*	1 - 140 units
Visiting Teachers*	1 - 250 units
Driver Education Teachers	1 - 125 tenth grade students (1/5 teacher for 25 students)
Academic Excellence Unit	1 - 250 pupils
Nurses	1 - 40 units
Clerical	1 - 10 first 100 units

	1 - 12 over 100 units
Custodial	1 - 12 building units
Cafeteria Manager	1 per cafeteria (37% State funds)
Cafeteria Workers	1 for 7 hours for each 100 meals served (33% State funding)
Special Education Specialists Related Services Specialists**	1- 30 Special Education Units (except SMH, hearing impaired, autistic, deaf-blind, or orthopedically handicapped)
Physical Therapists**	1 - 50 severely mentally handicapped students
Occupational Therapists**	1 - 50 severely mentally handicapped students
Speech Therapists**	1 - 50 severely mentally handicapped students
Physical Therapists**	1 - 30 orthopedically handicapped
Occupational therapists**	1 - 40 orthopedically handicapped
Speech/Language Clinicians**	1 - 50 orthopedically handicapped (a minimum of one each for these specialist per school)
Therapists and Special Service Personnel	1 - 3 units deaf/blind students
Coordinator	1 Statewide for Autistic
Speech and Language Therapists**	1 - 3 units Autistic students
Psychologists**	1 - 6 units autistic students
Director	1 Statewide for hearing impaired
Speech Therapists**	1 - 6 units hearing impaired
Psychologists	1 - 10 units hearing impaired
Resource Teacher**	1 - 10 units hearing impaired
Interpreter - Tutors**	1 - 4 Deaf students who are mainstreamed
Teacher - Coordinator	1 Statewide for preschool
Aides and Attendants	1 - Formulas vary for classes for TMR, SMR, orthopedically handicapped, hearing impaired, deaf-blind, autistic, partial sighted, and blind

*or fractional part of first unit
**districts qualify for fractional part of unit

Note: A unit consists of 12 classrooms.

4.0 REFERENDUM FOR SCHOOL CONSTRUCTION/BONDS-BOND ANTICIPATION NOTES

4.1 When to Hold a Referendum and Obtain Approval of Referendum Date

Referenda to authorize the sale of local school bonds or notes to pay for the local share of school construction costs may be held after obtaining a Certificate of Necessity from the Department of Education. Referenda should be held prior to the completion of the Joint Finance Committee's final version of the Bond Bill, no later than July.

Del. Code, §2123 covers tabulation and canvass and recording of votes.

4.2 Rules Governing Referendum (Election) to Authorize Bond Issues is covered in

14 Del. Code, Chapter 21.

4.3 Local School Bonds

14 Del. Code, Chapter 21, deals with Local School Bonds.

4.4 Bond Anticipation Notes 29 Del. Code 7508

4.4.1 Reason for need of a Bond Anticipation Note -

The State normally holds a bond sale in the months of January and July. If the timing of a project requires that the local share of a project be deposited and cash be made available before State bond sales are held, it is the responsibility of the school district to secure bond anticipation notes to provide this cash. It is recommended that the district contact the Bonds and Investments Division of the State Treasurer's Office for assistance in this matter.

5.0 SITE

Site Selection

When seeking a school site, districts should consider several factors—size, shape, topography, safety and access. The following are suggested guidelines when evaluating potential sites..

5.1 Size

There is probably no real substitute for sufficient size. The suggested minimums are:

a. Elementary School - 10-acre base plus one acre per 100 students of school capacity. Example: an elementary school for 720 pupils should have a 17-acre site.

b. Middle School or Junior High School - 20-acre base plus one acre per 100 students of school capacity. . Example: a 1000-pupil middle school should have a 30-acre site.

c. High School - 30-acre base plus one acre per 100 students of final school capacity. Example: a high school planned with a maximum pupil enrollment of 2000 students with initial construction housing 1200 students should have a 50-acre site.

d. Combined Site - "Campus" siting involving more than one grade level of school buildings shall be on a site selected to fit the needs of the highest grade level.

Example: a combination elementary and middle school for 400 elementary and 400 middle school pupils should be on a 28-acre site.

5.2 Inadequate Site Size -

Obtaining sites of adequate size cannot always be resolved favorably. When a school must be located on an inadequate site because of land values, location or lack of available sites, the following should be investigated:

a. Multi-story or basement construction.

b. Raise building to provide play space underneath.

c. Design to use roof area.

d. If public park land is nearby, seek joint use agreement.

e. Develop athletic facilities on a remote site.

f. Limit vehicle parking to 3% of total site area.

g. Avoid bus parking and storage on site.

h. Minimize service roads.

i. Exclude non-school facilities.

5.3 Shape and Topography

The general rule of thumb for ideal shape is rectangle with the dimensional ratio of approximately 3:5 or 5:8. While it is possible to develop an acceptable site on an irregularly shaped plot, remember that costs associated with developing the plot could push the final cost to equal or exceed the cost of a more desirable though initially more expensive site.

Radical elevation changes and marsh lands should be avoided precluding the cost of special architectural and engineering features. After narrowing the choice of sites to two or three, it is advisable to have test borings and surveys conducted to determine subsurface and surface conditions, relative to rock formations, local water table, drainage, ability to support a structure, hazardous material dumps, etc.

5.4 Safety -

A prime factor in site selection should be the safety of the children. If possible, children should not have to cross or walk along railroad tracks, heavy traffic lanes, or high speed sections of highways. Water, fire or other natural hazards should be corrected. No major utility lines should cross the site. Development of the site's

intra-roadway system should receive serious thought. Students should not have to cross any roadway to get to playing fields or other campus facilities. In elementary schools, fences near roadway should be considered a necessity. Additional information on safety can be found in the School Transportation Manual.

5.5 Site Acquisition and Sale 14 Del. Code 2124

5.6 Gifts of Buildings or Grounds: Title - 14 Del. Code 2302

5.7 Condemnation of School Sites -

14 Del. Code §2303, 10 Del. Code, Ch. 61 and 29 Del. Code §9314, 9503, 9505, set conditions and procedure for condemnation of land for school sites.

5.8 Restrictions on Sale of Land -

14 Del. Code §1057 sets certain restrictions and conditions upon the sale of real property.

5.9 Deeds

Deposit of Deeds to State-Owned Property with Department of State - 14 Del. Code 2124

6.0 PLAN PREPARATION AND GOVERNMENTAL AGENCY APPROVAL

6.1 Who May Prepare Plans

All plans submitted for approval must bear the seal and signature of the preparing Delaware registered professional architect or engineer. Engineers must be certified by the Delaware Association of Professional Engineers to practice in the State of Delaware.

6.2 Procedures for Selection of Professional Services

29 Del. Code, Ch. 69, State Procurement, was revised in 1996. The section dealing with professional services is Subchapter V §§6980 through 6986. (Sec 2.3 (2) G)

6.3 Schematic Plans

6.3.1 Approvals required -

(1) Local Board of Education

(2) Department of Education

(3) County or City Planning (For Information Only)

6.3.2 Schedule for Submission of Schematic Plans -

After approval by the Local Board of Education, two (2) copies of the schematic plans are submitted to the Office of School Plant Planning who will make Schematic Plans available to the appropriate staff members for review. Schematic plans may be submitted at any time during the month and ten working days are required for review by the staff. During the ten-day working period, Department of Education staff members are requested to notify the district and the State Office of School Plant Planning if there are questions, problems or concerns. The State Office of School Plant Planning will notify the district of approval after the ten-day period.

6.4 Preliminary Plans

6.4.1 Approvals and reviews required -

A. **State Agencies**

(1) Fire Marshal (coordination/information)

(2) Division of Public Health, Bureau of Environmental Health, Sanitary Engineering (Swimming Pools); County Health Unit (Kitchens and Cafeterias) (information only)

(3) Div. Of Facilities Management, Chief of Engineering & Operations (over $500,000 or complex scope).

(4) Division of Highways (Site plan only showing entrances and exits)

(5) Architectural Accessibility Board

(6) Local District Board of Education (Review and Approval)

(7) Department of Education (Review and Approval)

B. **Local Agencies**

New Castle County Unincorporated Areas -

County, Planning and Zoning Department approval is needed. It is recommended that this department be contacted as early as possible in the planning and design stages of a project to secure the necessary approvals and initiate the proper procedures.

New Castle County Cities and Towns -

All towns or cities have code enforcement offices. These towns generally require building and plumbing permits. Approval is required for zoning ordinance, water and sewer code compliance. Site plans must be approved for entrance, exit and street use compliance. It is recommended that if one of these offices has jurisdiction over a project they should be informed of the district's

plans as early as possible in the design stages so that the project will conform to all regulations.

Kent County Unincorporated Areas -

Kent County does have a county building code; the BOCA Code with local modifications went into effect January 1, 1975. Enforcement of this code is through the Dept. of Inspections and Enforcement. County planning and zoning approval is needed and is given when a building permit is obtained. It is recommended that these offices be contacted early in the design process to insure compliance with all applicable regulations.

Kent County Cities and Towns -

Most Kent County cities and gowns have code enforcement offices. These cities and towns require building and plumbing permits. Approval is required for zoning ordinance, water and sewer code compliance. Site plans must be approved for entrance, exit, and street use compliance. It is recommended that if one of these offices has jurisdiction over a project, they should be informed of the district's plans as early as possible in the design stage so that the project will conform to all regulations.

Sussex County Unincorporated Areas -

County Planning and Zoning Commission approval is needed for school projects in Sussex County. This office will issue a compliance permit. A county building code applies only to multi-family occupancy buildings. When an applicable building code is implemented, the building inspection department will need to be contacted for approval and permitting. It is recommended that these offices be contacted early in the design process to insure compliance with all applicable regulations.

Sussex County Cities and Towns -

Most cities and towns in Sussex County now have or are planning building code enforcement offices. These cities and towns usually require building and plumbing permits. Town approval must be given for zoning ordinance plus water and sewer code compliance. If one of these offices has jurisdiction over a project, it is recommended they should be informed of the district's plans as early as possible in the design stage so that the project will conform to all regulations.

6.4.2 Schedule for submission of Preliminary Plans -

Preliminary plans require Department of Education approval.. Submit two copies of the plans to the Office of School Plant. The Office of School Plant Planning will make the plans available to the appropriate staff members for their review. During this ten-day working period, staff members are requested to contact the district and the State Office of School Plant Planning if they have any questions, problems or concerns. Concurrently, the architect will brief the Office of School Plant Planning on the plans and provide a set of mounted drawings of the site, floor plans and elevations, if requested. The Department of Education will officially notify the district of approval.

6.4.3 Exceptions

For non-structural changes or alterations to school buildings (such as, service systems upgrading; i.e. heating, lighting, electrical and plumbing systems), approval authority is delegated to the Office of School Plant Planning and State Secretary of Education. Submission of preliminary plans in the above category will follow the schedule of submission as outlined for schematic plans in section 6.5.2.

6.5 Final Plans

6.5.1 Approvals and reviews required -

A. **State Agencies**

(1) Fire Marshal

(2) Div. of Public Health, Bureau of Environmental Health, Sanitary Engineering (Swimming Pools); County Health Unit (Kitchens and Cafeterias).

(3) Division of Facilities Management, Chief of Engineering and Operations - who will issue approval to bid at this time

(4) Division of Highways (site plan only - showing entrances and exits)

(5) Local Board of Education

(6) Department of Education

(7) Architectural Accessibility Board (29 Del. Code §7308 - Submission of Plans).

B. Local Agencies - Approval process for Final Plans is same as Preliminary Plans.

6.5.2 Schedule for Submission of Final Plans -

Final plans must be approved by the Dept. of Education.. Submit two (2) copies of the final plans and specifications to the Office of School Plant. The Office of School Plant Planning will make the plans available to the appropriate staff members for their review. During this ten-day working period, staff members are requested to contact the district and the Office of School Plant Planning if there are questions, problems or concerns. If the final plans have been substantially changed from the preliminary plans, the architect will brief the Office of School Plant Planning on the changes and if requested provide mounted drawings reflecting the changes, if requested. The Dept. of Education will officially notify the district of approval (also see 29 Del. Code §7518).

6.5.3 Exceptions

For non-structural changes or alterations to school buildings (such as, service systems upgrading; i.e., heating, lighting, electrical and plumbing systems), approval authority is delegated to the Office of School Plant Planning.

Submission of final plans in the above category will follow the schedule of submission as outlined for schematic plans in Section 6.5.2.

6.6 "As-Built" or Record Drawings

It is the responsibility of each school district to forward to the Department of State, Division of Historical and Cultural Affairs, Archives Section, a set of "archival quality" as built/record drawings for all facilities within the district. (29 Del. Code §523 and letter from State Architect, dated 8/23/76). (See Section 2.3 (5) (d))

6.7 The Construction Management (CM) Technique

The Department of Administrative Services has determined that the use of a General Contractor (GC) is the method of choice and a CM can be used only in limited circumstances. Because of the approval process involved in school construction projects, advantages otherwise offered by the CM technique is negated or severely limited. Many required jurisdictional approvals cannot be obtained without well developed designs, minimizing the early construction start advantage. Each segment of the work is required to go through a review and approval process. And, the financial administration workload is compounded by the number of contracts issued for the project.

Besides the administrative advantage of a single contract, the GC method provides a clearer picture of the overall project cost at the very outset, right after bid opening. A financial "go - no go" decision can be made before contracts are awarded. The use of a GC puts accountability on a single point contact.

The CM technique's potential cost advantage is in the profit markup a GC usually adds to his subcontractor costs. Overhead items normally covered by a GC must be assumed by the owner. These include construction trailer(s), furnishings, communications, utilities, bonding, security, etc. The CM's fee is covered by what would be the GC's profit margin, leaving little room from which to achieve savings. Therefore, a choice of a CM over a GC should be an exceptional occurrence. Here are guidelines for those instances in which a school district believes that the circumstances surrounding their project calls for the use of a CM to best serve the interest of the State. Authorization for its use must FIRST be obtained from the Department of Administrative Services BEFORE initiating any advertising. Each request must stand on its own merits and authority for use of the technique MAY be granted if:

(1) Construction or renovation funds are expected to be phased over a period of more than two years;

(2) Project or policy considerations create tight deadlines requiring the start of construction/renovation before completion of project design; and/or

(3) Very special or unique requirements exist.

The Secretary of Administrative Services must find that one or more of the above criteria are satisfied and that the use of a CM will serve the best interest of the State. Once authorization is received, the District may then proceed with the procurement of Construction Management services. Parameters regarding the applicable procurement method are:

(1) If the CM services include "nonprofessional" items, the contract must be competitively bid in accordance with 29 Del. Code, Ch 69, Subchapter III or IV or appropriate.

(2) If competitive bidding is not required, the CM shall be selected pursuant to 29 Del. Code, Ch. 69, Subchapter V, Professional Services. The Secretary of Administrative Services will assign a staff member to participate in and advise the District through the selection process. Districts shall use evaluation forms prepared by the Department of Administrative Services or adopted by the District for that purpose. The selection of the CM is the decision of the District. The contract must be reviewed and approved by the Department of Administrative Services as are all contracts for professional services.

(SB292, 29 Del. Code, §8803 (15), DAS Policy Memo: Requirements for Selection of Construction Managers dated January 10, 1990).

The position of the construction manager in the organization of the typical construction project and in the construction manager project is shown in the accompanying diagrams:

GENERAL CONTRACTOR PROJECT

School District

Architect

General Contractor

Support Construction	*	*	*	*	*	*	*

* = Subcontractor

CONSTRUCTION MANAGER PROJECT

School District

	Construction Manager				Architect		
Support Construction	*	*	*	*	*	*	*

* = Prime contractors

A summary of the procedures necessary to complete a project using the construction manager technique follows. Many of these procedures are similar to conventional practices. Where this similarity exists, reference is made to other selections of the construction manual.

6.8 Procedures Prior to Construction Bidding

A. Selection of Architect/Engineer Services

Selection shall be made in accordance with 29 Del. Code, Ch. 69, Subchapter V, Professional Services.

B. Selection of Construction Manager - (CM)

After gaining authorization from the Department of Administrative Services, procurement of CM services shall be either competitively bid or professionally negotiated depending on the circumstances.

C. Schematic Plan Stage, (See Section 2.7)

(1) The architect will develop plans and program data.

(2) The construction manager will develop the initial budget.

(3) The local Board of Education will review and approve the schematics.

(4) The Schematic plans will be submitted to the Office of School Plant Planning for Department of Education staff review.

D. Preliminary Plans/Final Educational Concept

Because of the CM technique of bidding in separate stages as opposed to awarding one general construction contract, it is at this stage that there is a significant departure from the normal procedures. In the historical sense, a set of final plans and construction documents are never developed; however, at this stage the educational concepts are finalized and the preliminary plans for heating, electrical, etc., are developed.

(1) Architect develops the plans and data.

(2) The CM and the architect develop the budget.

(3) The architect will obtain the necessary preliminary governmental agency approvals. (Div. of Facilities Management, Fire Marshal, Architectural Accessibility Board, Div. of Public Health, Division of Highways and Local Agencies).

(4) Submit to the Office of School Plant Planning for Department of Education Staff review and approval. (See Section 2.8)

E. Each Bid Package

(1) The architect develops the final plans and specifications.

(2) The CM develops budget for bid package and update budget for full project.

(3) The CM will obtain the necessary Governmental Agency approvals (as applicable - Div. of Facilities Management, Fire Marshal, Architectural Accessibility Board, Div. of Public Health, Division of Highways, Environmental Control and local authorities).

(4) The local board will approve each bid package.

(5) The State Office of School Plant Planning and the Div. of Facilities Management, Chief of Engineering & Operations, will review the bid package concurrently. The Division of Facilities Management, Chief of Engineering & Operations will give the local district permission to advertise and bid.

6.9 Bidding Procedures

A. Advertise

B. Receive bids

C. Local staff, architect and CM review and develop recommendation (if needed, review with Division of Facilities Management, Chief of Engineering & Operations and State Office of School Plant Planning).

D. Local Board of Education approves.

E. CM issues letter of intent to successful bidders.

F. CM prepares contracts.

G. CM has contractors sign contracts and secures bonds and insurance certificates.

H. Contracts, bonds and insurance certificates forwarded to school district. Architect should be notified of this step or CM forward to architect for transmittal to district.

I. Local Board of Education executes contract.

J. Local district prepares purchase order and forwards to State Office of School Plant Planning. Bid tabulations, budget and other back-up data is included (see Section 6.9 of the School Construction Manual).

K. The State Office of School Plant Planning forwards purchase orders after approval to Director, Capital Budget/Special Projects who forwards it to the State Treasurer.

L. Contractor will advise the CM of the receipt of the purchase orders. The CM will notify the school district and the architect.

6.10 Change Orders

Change order procedures contained in Section 6.10 of this manual are applicable.

6.11 Substantial Completion -

Present regulation requires that the school district will notify the State Office of School Plant Planning, the State Auditor, the Budget Director, and the State Insurance Coverage Office upon substantial completion). When using the CM technique a notification of substantial completion will be made for each prime contract.

6.12 Warranty/Guaranty Pre-Expiration Inspection

Most warranties/guarantees on construction are limited to one year after acceptance, occupancy or substantial completion. Districts should set up an inspection approximately one month before warranty/guarantee expiration to have any covered deficiencies brought to the attention of the contractor. The DOE staff can be made available to assist in this inspection.

7.0 STATE PROCUREMENT 29 Del. Code Ch. 69

7.1 Local District Bid Files

Each local district is required to maintain standardized bidding files regarding each item or service purchased by bid. Each bid file should be identified using the certificate of necessity number, the number of the bid within the project, the date of the bid opening and contain the following information: Copy of newspaper advertisements (if required).

Copy of specifications and instructions submitted to the vendors. Original proposals submitted by the vendors.

Tabulation of bids.

Indication of successful bidder and a copy of the letter awarding the contract.

Copy of the signed contract.

If contract was not awarded to lowest bidder, statement of reasons and a copy of the school board minutes indicating reasons for same.

Other pertinent information deemed necessary by the administration.

7.2 Use of Appropriated Funds for Inspection and Auditing (re: 29 Del. Code §7526)

7.3 State Fire Marshal Review Funds

A portion of the total cost of a Capital Improvement project shall be allocated for the cost of the Fire Marshal's review and are as follows:

Project Cost

Up to $1,000,000.....0.3%

Over $1,000,000.....0.1%

7.4 Insurance During Construction

The Insurance Commissioner's Office has issued a Bulletin that suggests general guidelines for insurance required during construction projects.

A. The State of Delaware, through a self-insurance fund, has a program designed to protect its

interest. However, while buildings are under construction, special risks exist that should be covered by insurance carried by the contractor.

B. Insurance Required of the Contractor. The bid specifications for a project shall state that the prime contractor shall carry, at his own expense, the following forms of insurance.

1. Public Liability and Automobile Liability Insurance coverage provided for both the owner and the contractor.

a. Minimum coverage for bodily injury shall be $500,000 for any one individual and $1,000,000 for any one accident.

b. Minimum coverage for property damage shall be $500,000 for any one accident.

c. Policies shall include completed operations, owners and contractors Protective Liability and Contractual Liability coverage in the same minimum amounts as in (a) above if the project involves excavations, deep trenching, or blasting, endorsements to the policy should be obtained to cover these hazards.

d. Certificates of insurance must be filed with the owner guarantying fifteen (15) days notice prior to cancellation.

2. Builders Risk Policy

The builders risk policy will be an all risk coverage policy.

a. The policy shall be in the name of the owner and prime contractor, jointly, "as their interests may appear."

b. On new construction or complete additions, policy will be carried on a completed value basis.

c. On renovation projects, the policy will be covered by either an installation loater or a separate policy of sufficient dollar amount to fully cover the cost of the materials stored.

d. If it is your policy to pay for material not stored on the site, either a separate

certificate of insurance must be issued or a rider must be added to the existing builders risk policy. The amount of coverage must be sufficient to cover all materials stored off the site.

e. Certificates of insurance must be filed with the owner guarantying fifteen (15) days notice prior to cancellation.

3. **Workers' Compensation Including Employee's Liability**

a. Minimum limit on Employee's Liability to be $100,000 minimum limit for all employees working at one site.

b. Certificates of insurance must be filed with the owner guarantying fifteen (15) days notice prior to cancellation.

4. **Boiler Insurance**

a. If a new boiler is started prior to acceptance of the installation by the owner, the contractor must carry boiler insurance until acceptance by the owner.

b. Minimum coverage for boiler insurance of bodily injury will be $1,000,000. For property damage the minimum coverage will also be $1,000,000.

c. Certificates of insurance must be filed with the owner guarantying fifteen (15) days notice prior to cancellation.

C. Insurance Required of the Architect/Engineer

School districts for each project should have certificates of insurance with a guarantee of fifteen (15) days notice of cancellation showing that all architects and engineers are covered by Professional Insurance (errors and omissions). Limits are to be the value of the construction contract or $1,000,000 which ever is less.

State Insurance Department, Coverage Office Bulletin No.11, November 9, 1976.

7.5 Black Listing of Fraudulent Contractors

At the present time, the State of Delaware does not have specific laws for black listing of contractors. We know there have been situations when a contractor has completed work, collected payment, and is no longer to be found to honor warranties or installations, yet continues to do business under another company name. The State Office of School Plant Planning suggests that stipulations are added to bid packages during solicitations. The stipulation should state that individual owners of companies who were fraudulent on previous contracts with the State or school district or with the GC hired by the same are not able to apply for contracts with the State or school districts for a period of five (5) years.

Issuing stipulations such as this, is a way to hold accountable those who do work for the State or school districts.

8.0 THE MINOR CAPITAL IMPROVEMENT (MCI) PROGRAM REGULATIONS

8.1 Minor Capital Improvement Program Guidelines

This minor capital improvement program is a program to provide for planned and programmed maintenance and repair of the school plant. The program's primary purpose is to keep real property assets in their original condition of completeness and efficiency on a scheduled basis. It is not for increasing the plant inventory, changing its composition or more frequent maintenance activities. MCI projects are limited to $250,000 unless the project is for roof repair. The three-year program is submitted annually and should be comprised of work necessary for good maintenance practice.

a. Minor Capital Improvement projects shall be submitted to the State Division of Accounting prior to any work being done. A separate purchase order must be submitted for each project. (One copy of the approved purchase order will be returned to the district for their information and record).

b. The local school district shall send a copy of the purchase order to the State Department of Education.

c. The following areas are authorized for Minor Capital Improvement Project funds: roofs, heating system, ventilation and air conditioning systems, plumbing and water systems, electrical systems, windows, (sashes, frames), doors, floors, ceilings, masonry, structural built-in equipment, painting (fire suppression and life safety), maintenance of site, typewriters and office machines used for instructional purposes only, renovations/alterations/modernization that does not require major structural changes.

d. Use of Funds

   Funds allocated for a specific project shall be used only for that project. Program funds may not be used for routine janitorial supplies, upkeep of grounds nor any movable equipment. Recurring items such as broken glass and torn window screens may not be repaired or

replaced with these funds.

e. Invoices

Invoices may be sent directly to the Division of Accounting for processing after work has been completed and accepted, except for invoices with an adjustment which must be approved by the State Department of Education before transmittal to the Division of Accounting.

f. **Vocational Equipment Replacement Requests**

(1) Requests for the replacement of vocational equipment may be made under the Minor Capital Improvement Program. Requests shall be made when the equipment is within three years of its estimated life so districts can accumulate the necessary dollars to purchase the item.

(2) Equipment shall be defined as a movable or fixed unit, not built-in, that:

(a) retain its original shape and appearance with use

(b) is non-expendable, i.e., is not consumed in use

(c) represents an investment in money which makes it feasible and advisable to capitalize

(d) does not lose its identity through incorporation into a different or more complex unit

(3) The equipment shall meet the following criteria to be replaced:

(a) Item is non-expendable.

(b) Item has a minimum 10-year life expectancy.

(c) Item has a unit cost of $500 or more.

(d) Item is worn out or not repairable.

(e) Item is obsolete and five or more years old.

(f) Item was originally purchased with State, State and local, or local funds only.

(4) Funds

Funds shall be allocated based on the percentage of a district's Vocational Division II

Units to the total of such units of all participating districts. This percentage is applied to the total funds available in a given year for capital equipment. Vocational schools are 100% State funded and all others are funded 60% State and 40% local.

(5) Purchase Orders

Funds may be expended anytime during the life of the Act which appropriated the funds, usually, a three-year period. Appropriations may be accumulated over those three years and expended for a major replacement when a sufficient balance is attained. However, should funds prove insufficient after three years of appropriations, the district must supplement the program from their own or other resources. Funds unexpended when the appropriating Act expires will revert tot he State.

(6) Cost Limitations

The maximum cost of a Minor Capital Improvement project is $250,000 except roof repairs/replacements which are not cost limited. Non-roof projects exceeding the ceiling shall be requested in the Major Capital Improvement Program.

(7) Temporary Employees

Workers may be hired under the Minor Capital Improvement Program provided they are temporary hires and directly involved in the planning, constructing, or record maintenance of the construction project.

8.2 Definitions

a. **Alterations** - Minor changes to building interiors that do not involve major structural changes.

b. **Built-in Equipment** - Equipment that is an integral part of the building or site and permanently attached. It functions as part of the building or site and causes appreciable damage or change to the location from where it is removed. Equipment that is part of normal service systems of a building e.g. domestic hot water heaters, and water coolers/fountains. In the case of kitchen equipment, besides being "permanently attached", it must have at least three utility connections e.g. water, electric, and sewage".

c. **Floor plan** - A drawing that clearly and accurately shows the shape, location and size of a building and its rooms/spaces.

d. **Maintenance** - Those activities concerned with keeping the grounds, buildings, and built-in equipment at their original completeness or efficiency, through repairs other than a total replacement.

e. **Operation, plant** - Activities concerned with keeping the physical plant open, operational and ready for use including cleaning, disinfecting, heating, moving furniture, mowing, and preventive maintenance that are repetitive and frequent. It does not include repairs or replacement.

f. **Renovation** - Any major permanent improvement to a building including changes to partitions, roof structure, or walls. Also includes cosmetic renovations without changing the structure, function, design., changing the design, fixtures, fittings, furnishings, appearance and/or service systems of a building to upgrade it to a contemporary state consistent with the needs of changing educational programs. Does not include repairs

g. **Repair** - The restoration of a given piece of equipment, a building, or grounds to original condition of completeness or efficiency.

h. **Replacement** - Repair by a total changeout of a piece of property with another of new or like material.

8.3 Criteria

Work on components of the school plant within $250,000 determine qualification for the MCI Program. Periodic work with a frequency exceeding a year e.g. protective coating (painting), boiler cleaning and inspection, etc. Generally, MCI projects are beyond the scope and/or capability of in-house resources. They are relatively larger, more complex, or require specialized equipment or skills. To identify requirements for inclusion in the program consider:

a. Major maintenance, repair and replacement needs to keep the school plant at its original condition of completeness or efficiency.

   Component items are:

   1. roofs
   2. heating systems
   3. ventilation and air conditioning systems
   4. plumbing and water systems
   5. electrical systems
   6. windows and doors
   7. floors
   8. ceilings
   9. Masonry (building, not sidewalks, curbs or paving)
   10. Structural
   11. Built-in Equipment (integral part of building, permanently attached) e.g. chalkboards, stage curtains, shelving, bleachers, auditorium seats, communications systems, water coolers, steam tables, lockers, etc.
   12. Painting (only as part of a planned program)
   13. Instructional equipment (typewriters, office machines)
   14. Site maintenance (repair of all developed land except buildings. Includes repair, replacement, resurfacing of pavements, curbs and sidewalks; repair, replacement of

fences; regrading; repair, replacement of site service systems, retaining walls, etc.)

15. Fire protection + emergency protection systems, cosmetic renovations to a building without changing its structure, function, or design e.g. restoring a classroom to its original use by repairing and/or replacing components, adding chalkboards; changing the type of fixtures in a restroom; relocating facilities in science, home economics, art, etc; replacing non-bearing walls with folding partitions to provide capability to make a large, group instruction room.

b. Modernization to change the design, fixtures, fittings, furnishings, and service systems to bring a building up to a contemporary state consistent with the needs of changing educational programs and the need to conserve energy. For example, it may be the updating of a resource center by providing individual carrel seating, kitchen equipment, conference rooms, and improved lighting.

c. Structural renovations involving a major permanent improvement to a building.including changes of partitions, roof structure, or walls) e.g. changing a regular classroom into a science or home economics room.

d. Renovations to the infrastructure to update the building systems to better service and enhance the educational process, eg. complete renovation of the electrical system: improved lighting, public address system, automatic intrusion alarm; improvement of restrooms; heating/cooling, fire alarm, fire suppression and planning.

e. Work required by legislation or regulatory State agencies to include the installation of emergency lighting, fire alarms, or sprinklers; asbestos removal/abatement; and removal/replacement of underground storage tanks.

f. Non-scheduled projects approved by the State Board of Education.

g. Vocational Equipment Replacement (see Section 9.0)

h. Stand Alone Storage Buildings. A detached building may be provided at existing schools without such facilities utilizing the Minor Capital Improvement Program). They are limited to 250, 500, and 750 square feet at elementary, middle, and high schools

respectively, and construction must be appropriate for their use. Plans for such structures must be reviewed and approved by the School Plant Planning Office.

8.4 **Exclusions** - The Minor Capital Improvement Program is limited to types of work related to the maintenance and repair of existing real property assets. Its purpose is not to increase those assets nor change their composition as required by the school construction formula. Excluded from the MCI Program are:

a. New construction that increase the area of a building or extends any of its component systems.

b. Movable equipment (other than office equipment and typewriters used for instructional purposes) that are transportable from one location to another without appreciable damage or change to the location from which they were removed or are installed.

c. Site improvement (except buildings) that adds to or extends the existing facility, e.g. extending a roadway or sidewalk or surfacing a non-surfaced area for parking.

d. Completing major construction projects.

e. Items omitted/deleted from major construction projects as a cost reduction measure or where floor space was according to formula and used otherwise.

f. Changes to floor space contrary to the school construction formula.

8.5 Temporary Employees - Workers may be hired under the MCI Program provided they are temporary hires and directly involved in the planning, constructing, or record maintenance of the construction project. The principle administrator of a new school may be hired for up to one (1) year prior to student occupancy to organize educational staffings. The State portion of salary/benefits may be paid from MCI programs. Temporary employees cannot become regular employees unless a regular job vacancy occurs and they are competitively hired to that vacancy. Temporary employees are not eligible for State benefits e.g. pension, etc.

8.6 General Instructions

a. **Three-year Planning** - The MCI Program is a three-year plan of scheduled maintenance and repair work. It involves:

(1) identification of required work.

(2) prioritizing that work.

(3) programming the requirements over a period to stabilize the load on resources and preclude emergency diversions.

b. **Justification** - Need for the project must be established. Supporting data must be provided, e.g.

(1) Expert advice in the form of written communication from an architect, engineer, contractor or vendor.

(2) Cost estimates provided by architects, engineers, contractors, or vendors.

(3) Diagram, floor plan or blueprint, where applicable.

(4) Square footage for roofs, floors, etc.

(5) Lineal footage for curbs, fences, gutters, etc.

(6) Location i.e. what section, area, room(s), wing, building, etc.

(7) Description of project i.e. what work is involved. (Note: It must have a 10-year or better life rating.)

(8) Other information as requested by DOE and/or the Legislature. Projects must be reviewed by this department before they will be included in the program. Failure to provide necessary supporting data will be sufficient grounds to deny consideration of a project or projects. **Projects scheduled for a given year should be accomplished in that year**. This department will only consider transfers on a case-by-case basis.

c. **Revisions** - Review your previous three-year program for required revisions, particularly with regard to priorities. Update cost estimates as appropriate. Previously submitted supporting data need only be copied. However, provide originals of new data.

d. **Program Submission Format**

(1) Request for Minor Capital Improvement Projects are submitted on disk format.

(a) Each component item should be listed under the appropriate category i.e. roofs,

floors, windows and doors, heating systems, etc.

(b) Priority numbers must reflect the project's overall priority relative to all other MCI projects submitted by the district for that fiscal year not the priority within the category, school, or building. For example, replacement of a boiler in school X may be your most important project in the district. It will show "1" as its priority. Priority "2" may be a roof repair at school Y and, "3", a repointing project of the exterior brick at school Z.

(c) Project description should identify the school and a brief phrase as to the nature of the work e.g. X Elementary, replace incandescent fixtures with fluorescents.

(d) Location column should identify where within the building or facility the work is to be done e.g. Wing A, hallways and classrooms; Admin. Offices; Rooms 101-108, 201-210, etc.

(e) Energy Conservation Project. Check as Overcharge/Federal sources. For details, contact the Division of Facilities Management, Energy Office, at 739-5644.

(f) Square footage or quantity should reflect the work scope in amount and unit i.e. the number of square feet, lineal feet, cubic yards, squares, each, etc.

(g) Unit cost should show the price per unit shown on the square footage or quantity column.

(h) Local cost is the district's share of the total cost in dollars.

(i) State cost is the States' share of the total cost in dollars.

(j) Total cost is the sum of (h) and (i) above.

(2) The original disk should be completed. Submit the original to the School Plant Section, Department of Education, P.O. Box 1402, John G. Townsend Building, Dover, DE 19903 and retain the copy for your records.

8.7 VOCATIONAL EQUIPMENT REPLACEMENT UNDER THE MINOR CAPITAL

IMPROVEMENT (MCI) PROGRAM

Replacement of qualifying vocational equipment may be accomplished under special provisions in the Minor Capital Improvement Program. School districts may apply for funds to replace such equipment that meet certain criteria. Requests may be made when the equipment is within three years of its estimated life so districts can accumulate the necessary dollars to purchase the item(s) over three successive MCI programs.

Definition of Equipment. A movable or fixed unit (not built-in) that:

a. retains its original shape and appearance with use.

b. is non-expendable, i.e., is not consumed in use.

c. represents an investment in money which makes it feasible and advisable to capitalize.

d. does not lose its identity through incorporation into a different or more complex unit.

Criteria. Instructional equipment in vocational programs approved by the State Board of Education may be replaced under these provisions if:

a Item is non-expendable.

b. Item has a minimum 10-year life expectancy.

c. Item has a unit cost of $500 or more.

d. Item is worn-out or not repairable.

e Item is obsolete and five or more years old.

f. Item was originally purchased with State, State and local, or local funds only.

Participation. Districts desiring to participate in the Vocational Equipment Replacement Program must complete and submit form "B" to the School Plant Section at the time of the MCI Program submission. Do not include vocational equipment replacements with the regular MCI projects.

Fund Allocation. Funds are allocated based on the percentage of a district's Vocational Division II Units to the total of such units of all participating districts. This percentage is

applied to the total funds available in a given year for capital equipment. Vocational schools are 100% State funded and all others are funded 60% State and 40% local.

Expenditure. Purchase orders for vocational equipment replacements are submitted to the School Plant Section and reviewed and approved in coordination with the Vocational Division before forwarding to the Division of Accounting. Funds may be expended anytime during the life of the Act which appropriated the monies, usually, a three-year period. Appropriations may be accumulated over those three years and expended for a major replacement when a sufficient balance is attained. However, should funds prove insufficient after three years of appropriations, the district must supplement the program from their own or other resources. Funds unexpended when the appropriating Act expires will revert to the State.

9.0 ACCOUNTING PROCEDURES

General Information

Establishing and maintaining accurate, auditable records of school construction accounts are the responsibility of the local school district. The accounting system must be such that a competent clerk can readily keep the accounts. The records must be kept in conformity with sound principles of accounting and the classifications used should facilitate the preparation of uniform financial statements and annual reports as well as local and periodic reports required by the local school boards and the Secretary of Education. The accounts must provide an accurate check on and control of all school construction funds. It should be compatible with the Delaware Financial Management System (DFMS) because the appropriation, allocation, encumbrance and expenditure of funds are inextricably part of the statewide system. Accounts must be arranged in a manner that would be readily understood by an accountant, one familiar with public school affairs as well as by an auditor. The system must be sufficiently expansive to accommodate changing conditions as they arise. It should also make unit cost i.e. per square foot, cubic yard, classroom, student, etc. easy to obtain.

State funds are appropriated and managed by fiscal year which is from July 1 to June 30. The accounting system should be aligned with the State's financial year.

9.1 Checklist of Income and Expenditure Items

The following items of income and expenditure are not all-inclusive. Each project may present unusual or special conditions that should be added. Rather, the list is offered as a planning tool in establishing the accounting mechanism for the overall building project from early program development to completion, final acceptance and payment.

9.2 Income - sources of funds for School Construction

9.2.1 Bonds

A. Local School District

B. State

9.2.2 Grants

A. Federal

B. State

C. Emergency Aid - State

D. Emergency Aid - Federal

9.2.3 Non-Public Funds

A. Individual Gifts

B. Corporate Gifts

C. Endowment Funds

9.2.4 Sales and Leases (see 14 Del. Code §1057)

A. Real Property

B. Personal Property

9.2.5 Interest

A. Bond Deposits

B. Endowments

Bonds sold at a Premium - Interest accrued at the time of Sale and the Premium are both credited to the Debt Service Account. If the amount of Bonds sold is less than the authorized amount, the accrued Interest or Premiums at the time of Sale is credited to the Construction Funds Account, up to the authorized amount.

9.3 Expenditures-

A. Preliminary study and research

B. Comprehensive School Building Survey

C. Educational Consultant's Services

NOTE: The cost of the above items prior to the passage of the Capital Improvements Act may not be paid from construction funds unless provided by a loan from the Advance Planning Fund.

D. Architectural - Engineering Services

E. **Site Acquisition**

9.4 **Site Preparation**

A Improvements of site before building started

B. Improvements of site after building completed

(1) Landscaping

(2) Parking

(3) Driveways/roads

(4) Sidewalks

C. Playground and Recreational Facilities

(1) Playground Equipment

(2) Game Provisions

a Football Fields

b. Baseball Fields

c. Basketball Courts

d. Tennis Courts

e. Hockey Fields

f. Volleyball Courts

g. Soccer Fields

h. Softball Fields

i. Other

D. Transportation and Site Service Provisions

(l) Parking

(2) Supply Service Paving

E. Other Site Provisions

(1) Fencing

(2) Retaining Walls; Embankments

(3) Drainage

(4) Miscellaneous

9.5 Building Construction Costs

A. Original Construction Contract

(1) Building

(2) Auditorium

(3) Field Buildings

(4) Stadium

B. Adjustment of Costs beyond Original Contracts as approved.

9.6 Alterations and Additions

9.7 Furniture and Equipment

A. Cost

(1) Office Furniture and Equipment

(2) Institution Furniture and Equipment

(3) Other Vehicles

(4) Shop Machinery Equipment and Tools

(5) Fire protection and life safety

(6) Mechanical, Electrical, Plumbing Equipment and Fixtures

(7) Communication Equipment

(8) Instruments and Laboratory Equipment

(9) Educational, Recreational and Cultural Equipment

(10) Books (Other than school textbooks)

9.8 Administration and Control of School Bond Issues

A. Sale of Bonds - Advertising

B. Printing of Bonds

C. Miscellaneous

9.9 Administration of the School Construction Program

A. Administrative Costs

(1) Personnel - Payroll

(2) Transportation and Travel

(3) Other

9.10 Legal Services for:

A. Safeguarding Site Transactions

B. Bond Issue Legality

C. Legality of Performance Bonds

D. Legality of Maintenance Bonds

E. Other

9.11 Insurance Costs

A. Workmen's Compensation Insurance

B. Public Liability (Only if obtained by Local Board of Education)

9.12 Supervision and Audit

9.13 Invoice Procedures

The Division of Accounting will send the original of the approved Purchase Order (PO) to the vendor (contractor). Upon receipt, the firm is authorized to proceed with the approved work and services.

The vendor (contractor) bills the owner by presenting a company invoice. If the invoice is with the delivery, it is both the receiving report and detailed bill. If not, a receiving report must be retained until the detailed bill/invoice is received. In the case of a construction contract, an Application and Certificate for Payment (AIA Document G702) supported by Continuation Sheets (G703) or equivalent is submitted by the Contractor. This is the construction contract "receiving report and detailed billing." It must be reviewed and approved by the architect and inspector prior to processing for payment. When preparing the Payment Voucher (PV), ensure that an adequate balance is on the PO. If not, a direct claim or PO modification will be necessary. Additionally, indicate in the space provided whether it is a partial, (P), or final, (F), payment. The PV must be signed by two authorized persons, only one of which may be a

facsimile.

If the PV is approved, expenditures will be recorded and the encumbrance debited. If not, it will be returned to the district with an explanation.

All PVs must be recorded on the local district's books when they are forwarded to the Division of Accounting. This permits reconciliation with Central Data Control records of the State.

9.14 Filing Procedures

School Construction Account files can be set up as a file or as part of your construction binder and should be set up as follows:

A. All construction fund PVs shall be maintained in a separate file or section in your project construction binder.

B. Project PVs should be filed by certificate number. Each new project shuld have a separate file or binder.

C. These records are audited concurrently. After the audit has been completed, the records must be maintained in the same manner for the length of time as stipulated by State Law.

9.15 Construction File Contents

The following documentation should be in each construction account file or binder:

A. Minutes of Board, Commission, Advisory Council and/or any entity having to do with the construction.

   (1) Identify project, fund number, dollar amount, and any special considerations.

B. Enabling legislation, original and/or supplemental.

C. Certificate(s) of Necessity.

D. Federal or other grants affecting the project.

E. Preliminary planning budgets.

F. Bid files on basic and subsidiary construction, equipment and supplies.

   (1) Evidence of advertising and/or letter solicitation of bids.

   (2) Specifications and instructions to bidders for each contract.

   (3) Tabulation of bids.

(4) Excerpt from board minutes approving contract award.

(5) Evidence of the State Division of Facilities Management's approval of the plans and specifications and to bid.

(6) Evidence of return of appropriate bid bonds to bidders.

(7) Bonds for performance, payment, labor and material, as specified and/or required by law.

(8) Certificates of Insurance, Contractor's.

(9) Copy of each bidder's proposal.

(10) Letters of award and nonaward.

(11) Reasons for award of bid to other than low-bidder, as applicable.

(12) Copy of purchase order.

(13) Evidence of Architect's review of bid proposal before award.

(14) Evidence of departmental planning office review and approval.

(15) Copy of working budget after contract is awarded and construction is underway.

G. Contracts:

(1) Construction

(2) Architect-Engineer Service

(3) Inspection

(4) Others pertinent to the construction project

H. Land Acquisition Files

(1) Deeds to land or certificates of registry, if pertinent

(2) Reimbursement to advanced land acquisition fund, if pertinent

I. Advanced Planning Fund Transaction, if any

J. Legal determinations, if any rendered

K. Change Orders

(1) Justification

(2) Division of Facilities Management Approval

(3) School Plant Planning Office Approval

(4) Standard A.I.A. form G-701 (or equivalent) setting forth change order specifications and PO Modification updating pertinent PO when change is approved

L. Construction Ledgers:

(1) Manual

(2) Machine

(3) DFMS reports

M. Other supporting account books, if any

N. Source Documents

(1) Purchase orders (PO)

(2) Payment Voucher (PV)

(3) Cash receipts (CR)

(4) Inter-governmental Voucher (IV)

(5) Transfer documents

(6) Others pertinent to project

O. Correspondence pertinent to project:

P. Special Reports: engineering, cost analysis, soil sample tests, others pertinent to project

Q. Letters of notification to Budget Director and School Plant Planning

(1) Construction start

(2) Construction completion

(3) Occupancy

R. Determination of enrollment or occupancy quantity of new construction or addition.

S. Documentation of any referendum conducted to provide funding.

T. Upon construction completion and certification of final acceptance, ascertain receipt of.

(1) Certificate of substantial and/or final completion

(2) Contractor's release of liens from all subcontractors and vendors

(3) All guarantees required by law and specifications

(4) Any special certificates required by specifications, e.g., concrete stress; special metal alloys or stress; lead-free potable water system and/or protective coatings, asbestos-free material, etc.

(5) Any liquidated damages assessed. If not collected, document reasons.

(6) Documentation of any contract completion time extensions.

(7) Architect's and inspector's certification and approval of final payment to contractor.

(8) Certificates of acceptance and occupancy by fire marshal, building code official, electrical and plumbing code inspectors, etc.

U. One year after date of occupancy, any unexpended funds shall be reverted as stipulated by State Law.

9.16 Construction Record Retention

Construction files remain active until two conditions are met:

A. A final audit has been performed on the account

B. Three years have passed since the last activity in the account When both conditions have been met, the file becomes inactive and may be deposited in the State Archives.

9.17 State Fiscal Year

The fiscal year for the State of Delaware begins on July 1 of the calendar year preceding and ends on June 30 of the corresponding calendar year. That is, fiscal year 1999 begins on July 1, 1998 and ends on June 30, 1999.

9.18 More Commonly Cited Deficiencies in Construction Audits

A. Certain securities used as bid bonds are not returned on time as required by 29 Del. Code §6906(c).

B. Documents e.g. performance bonds, are being held by the architect/engineer rather than being placed in the district's construction files.

C. Districts do not adhere to their own bid specifications, particularly in the area of type and delivery of insurance certificates.

D. When Change Orders are issued, insurance certificates and performance bonds are not adjusted accordingly.

E. Contracts and/or purchase orders are initiated prior to receipt of the performance bond. They are to be done simultaneously per 29 Del. Code §6909(a).

F. Districts fail to review specifications prepared by Architects/Engineers to ensure compliance with State Laws. The most common error has been to specify more time for the award of contracts than is permitted by the code.

G. Construction management services have been lax in providing the service contracted for e.g., insuring that contracts and bonding requirements are met on time; insurance certificates are up-dated before expiration when insuree is still on the job site; submitting written requests to owner for time extension when contractor or subcontractor cannot reasonably meet completion date.

H. Inadequate descriptions of items or services on purchase orders. (Re: Dept. of Finance Memo #76-13, March 15, 1976)

I. Inadequate information on change orders in Board Minutes. It should include the change order number, project and fund affected, description of the change and why, dollar amount involved, increase or decrease. Any time extensions or contractions.

J. Change orders are executed without necessary PO Modification to update affected PO. as insureds.

10.0 EMERGENCY PROCEDURES

10.1 Emergencies Covered by the State Self Insurance Plan Title 18 Del. Code Chapter 65

10.2 Fire, Lightning and Extended Coverage Emergencies

The following section is written to cover a fire emergency situation but should be utilized in other emergencies covered under the self insurance plan with the minimal changes necessary to adopt to the nature of the emergency. For example: in the event of a hail storm, the building would not be evacuated but the children should vacate to areas which contain minimal glass.

When a fire occurs in a school facility, the following steps should be followed:

A. Evacuate the building by sounding the local fire alarm.

B. Notify the local fire company.

C. Notify the State Fire Marshal's office.

D. As soon as clearance is given by the fire company, district and fire officials should conduct a preliminary investigation to determine extent of damage and safety of structure.

E. As soon as the fire company gives permission, the area should be secured by posting security guards where necessary, roping off unsafe areas, locking any unneeded access doors and whatever other measures are necessary to prevent further damage to the property.

F. If the fire is of a major nature, for example: where structural damage is done to the building, the district should immediately notify the State Risk Officer. If the fire is of a less serious nature, the Director can be contacted during the next working day. You should also contact the Office of School Plant Planning & Maintenance at the Department of Education. Since the district is responsible for the first $500 in damages, it is not necessary to contact the State Risk Officer or the Office of School Plant Planning if the fire damage is obviously less than $500.

Mr. Keith Barron

State Risk Officer
Blue Hen Corporate Center
655 Bay Road, Suite 201A
Dover, DE 19901
Office Phone: 739-3651

Office of School Plant Planning & Maintenance
Department of Education
P. O. Box 1402, Townsend Building
Dover, DE 19903-1402
Office Phone: 739-4658

G. Contact the Office of the Governor to get a waiver of the bid laws and a waiver on the competitive hiring of professional services for the emergency portion of the repairs.

H. If the extent of the damage warrants and with the approval of the State Risk Officer, hire an architect to investigate the extent of the damage and to supervise emergency repairs.

I. With the approval of the State Risk Officer, contact and hire the necessary craftsmen to make investigations, emergency repairs and demolition.

J. As soon as practical after the emergency repairs are made, the rebuilding of the facility should commence with a meeting attended by the school district, the State Risk Officer, DOE Education Associate of School Plant Planning & Maintenance, and if involved, the Architect who supervised the emergency repairs and his consultants. The purpose of this meeting would be to acquaint all concerned with the extent of the damage, estimated time to complete repairs, amounts and methods of payment under the State self insurance plan and a review of the operating procedures for completing the repairs.

10.3 **Selection of Architect** - If needed, the local board of education shall select its architect as provided in 29 Del. Code, C.69, Subc.II and as explained in Section 6 of this manual. The Director of Insurance Coverage requires review and approval of this contract.

10.4 **Preparation of Plans and Plan Review** - All plans, reviews and approvals for projects

which exceed the Minor Capital Improvement Program limit shall follow the procedures outlined in Section 6.3 through 6.8 of this manual except that in each step add the State Risk Officer to the required approvals. If the anticipated cost is less than the Minor Capital Improvement limit only the approval of the final plan by the Office of School Plant Planning & Maintenance, State Risk Officer and the Division of Facilities Management are required.

10.5 **Purchase Order** - The purchase order for the general contract must be approved by the State Risk Officer who may seek the advice of the Office of School Plant Planning & Maintenance and the Division of Facilities Management.

10.6 **Change Orders** - Change orders require only the approval of the Director of Insurance Coverage, but will be reviewed by the Office of School Plant Planning & Maintenance if requested by the Director.

10.7 **General Information Regarding Coverage and Procedures Under the Self Insurance Fund**

A. In general the Self-Insurance Fund will return real property to the condition which existed before the fire.

B. Equipment items not built into the structure will be adjusted on an actual cash value basis. (Replacement cost less depreciation.) As soon as practical after the fire, an inventory of damaged and destroyed equipment should be made.

C. Only State owned property is covered under this program. Personal property of students or staff are excluded.

D. Compensation for district employees involved in clean-up, security or repairs will only be made for over-time work.

E. Proof of expenditure must be presented before reimbursement will be made.

10.8 **Boilers and Furnace Explosion**

Boiler and furnace explosion insurance is carried by a commercial company. The

amount of coverage provided is $2,000,000 per accident. Insured objects include all boilers, fired pressure vessels, steam cookers and tables, and hot water heaters.

As a list of insured locations must be maintained, please advise the State Risk Officer of all new acquisitions or deletions of State owned real property.

In the event of a claim, please contact Mr. Keith Barron, State Risk Officer, Blue Hen Corporate Center, 655 S. Bay Road, Suite 201A; phone 302-739-3651.

Boiler inspections will be provided by the insurer, Travelers Insurance. Requests for inspections or questions concerning inspection recommendations should be directed to Keith Barron, State Risk Officer, at 302-739-3651.

The insurer should be notified any time that repairs are made which affect the pressure vessel.

Schools and agencies that contract for the construction of buildings are reminded that the contractor should provide boiler coverage until such time as the building is accepted by the State. (State Insurance Department Coverage Office Bulletin No. 9, January 20, 1976)

11.0 STANDARDS, POLICIES AND GUIDELINES OF THE STATE BOARD OF EDUCATION AND OTHER STATE AGENCIES

11.1 Radiological Protection Policy

The State Board of Education (adopted March 21, 1968) recommends that school districts continue to include radiological fall-out protection in new construction, if such protection can be funded in the overall cost of the building as determined by the space and cost formula, or from local sources.

11.2 Educational Technology

Provision should be made for the accommodation of future educational technology in construction and major renovation projects involving classrooms.

Index For Retention of Elementary School Buildings (A Suggested Guideline) Overview

The purpose of this index is to provide an objective method of rating elementary school buildings when it becomes necessary to close one or more district buildings because of declining enrollments. The index employs nine objective weighted criteria factors which play a part in the decision of which building to close. These criteria and their relative importance was synthesized from a survey of over 50 school districts nation-wide which have closed elementary schools. The weighting factor and data gathered on each school are substituted into a series of equations which produce an objective index of retention for each school. Schools receiving the lowest scores are those which should be considered for closing.

Instruction

A. The first step is to gather data on each elementary school as called for on the Elementary School Data Sheet. This information must be collected for each elementary school in the district from the same school year. Each item is identified as a school variable (SV1 through SV15).

B. From the information in the Elementary School Data Sheets, complete the District Summary of Elementary School Data Sheets form. Some items of information may be more obtainable from district records. Each of these items is identified as a district variable (DV1 through

DV7).

C. After the school and district data is collected, it is substituted into the equations contained on the pages labeled Numerical Values of Criteria. The purpose of these equations is to compute a numerical value for each of the criteria for each school. These values are identified as X through X .

D. After the numerical value of each of the criteria is calculated for each school, the value along with the criteria weight (CW1 - CW9) is used to calculate the school retention value on the page labeled Calculation of School Retention Value. This calculation is made for each elementary school in the district. After all calculations are completed, the values are used to complete the sheet labeled Rank Order School Retention Values. The highest numerical value is placed on line 1, the second highest on line 2, etc., until all schools have been listed. The schools with the highest number are the most desirable to retain while the lowest numerical value schools are the most likely to be closed.

E. It is at this point that the non-objective criteria must be considered. It is assumed that no combination of these factors would cause a top rated school to be closed but these non-quantitative factors may influence the decision of which of the lower ranked schools to close.

11.3 Explanation of Retention Criteria

A. Cost Per Pupil (Weight 3 = CW1)

A comparison of the total cost per pupil in the school to the total cost per pupil in the district. Total cost is defined as the cost of salaries, operational supplies, instructional supplies and materials, and utilities. A cost per pupil lower than the district average for elementary pupils would increase the feasibility of retention of the school in question.

B. Space Per Pupil (Weight 2 = CW2)

Space per pupil is defined as being the total square feet of the school plant divided by the total current enrollment including special education students and adjusted to full time equivalent for kindergarten students. Space per elementary pupil is then compared to

the district average square feet per elementary pupil. Space per elementary pupil less than the district average indicates relative over-crowding while space per pupil greater than the district average indicates relative inefficient utilization of the school plant. Thus variations above and below the district average are considered unfavorable to retention.

C. Pupil/Teacher Ratio (Weight l = CW3)

A pupil/teacher ratio lower than the district average would indicate inefficient utilization of teachers and a ratio above the district average would constitute a relative overload. Deviations from the district average reduce the feasibility of retention of the school in question.

D. Racial Composition (Weight 2 = CW4)

A school in which the racial composition is equal to that of the district as a whole is considered the most desirable situation. Schools with the largest deviations from the district average will receive the lowest scores on this criterion.

E. Auxiliary Facilities (Weight 1 = CW5)

Each elementary school should be rated as to whether or not they have the following auxiliary facilities (1) library (2) cafeteria or cafeteria/multi-purpose room (3) auditorium or auditorium/multipurpose room (4) gymnasium or gymnasium/multi-purpose room. The more of these auxiliary facilities an elementary school has available the more favorable retention of that school.

F. Transportation (Weight 2 = CW6)

If the closing of a particular elementary school resulted in additional pupils being transported then this should be considered a negative factor in retention of that school. Conversely a reduction in the number of pupils transported should be considered a favorable factor in retention.

G. Present School Enrollment (Weight 3 = CW7)

All school closings are undesirable from the vantage point of the transferred student.

Therefore, the greater the number of students involved the more feasible is retention.

H. Projected Enrollment (Weight 2 = CW8)

Although a district is declining, district wide, in elementary enrollment, it is possible that certain areas may be projected for growth. This criteria evaluated projected development so that a school located in an area of projected rapid growth would not be closed because of low present enrollment. Five years seems to be the maximum reliable forecast period.

I. Building Age (Weight 2 = CW9)

Operation and maintenance costs and the ability to function educationally are closely related to building age. The newer a building the more desirable retention. (NOTE: A building which has had a major addition or renovation should be considered in the following manner. [Age of original building + age of major addition or renovation - 2 = average age of building].)

Nonqualitative Factors

There are at least three non-qualitative factors which should be considered in school facility decisions; the local board may wish to consider others.

A. **Community Impact** - use of the school by the community groups.

B. **Psychological and Cultural Impact on Affected Students** - very often the transfer of a cultural or ethnic group of students to a culturally different environment can have a very adverse effect on their learning abilities.

C. **Safety and Security** - although a transfer may involve only a few blocks additional walk to school, a new safety hazard may be introduced such as an intersection with heavy traffic, a railroad track, etc.

The potential presence of any one of these factors, can be negated by operational and academic actions and provisions. They are considerations, however, that must be weighed against the qualitative indicators and against the dictates of limited financial resources.

11.4 ELEMENTARY SCHOOL DATA SHEET

FOR EACH ELEMENTARY SCHOOL COLLECT THE FOLLOWING VARIABLES. USE DATA FOR THE SAME SCHOOL YEAR THROUGHOUT.

SV1.	Total salaries in school. (Include principal, teachers - including full time equivalents for special or part-time teachers, secretaries, custodial, and cafeteria personnel).	SV1 = $_____
SV2.	Total operational supplies. (Include all janitorial and operational supplies).	SV2 = $_____
SV3.	Total instructional supplies. (Include all instructional materials and supplies).	SV3 = $_____
SV4.	Total utility costs. (Include all utility costs such as oil, heating and cooking gas, electricity, phone and security).	SV4 = $_____
SV5.	Total building enrollment. (Number of children on roll including kindergarten).	SV5 =_____
SV6.	Total kindergarten enrollment. (Number of children enrolled).	SV6 =_____
SV7.	Adjusted enrollment. (Item SV6 Minus 1/2 item SV7).	SV7 = _____

SV8. Projected enrollment. (Number of children projected in attendance area at the end of 5 years). SV8 =_____

SV9. Percent of white enrollment in building. SV9 =_____

SV10. Number of classroom teachers in building. (Full time equivalents). SV10 = _____

SV11. Gross square feet in building. SV11 =_____

SV12. Age of school in years. (If building has been renovated or received a major addition, then take age of original building and age of renovation or addition and divide by 2). SV12 =_____

SV13. Number of special facilities.

(A) Cafeteria/cafeteria multipurpose _____

(B) Auditorium/auditorium multipurpose _____

(C) Library _____

(D) Gymnasium/gymnasium multipurpose _____

SV13 = _____

SV14. Additional number of pupils to be transported if building closes. SV14 =_____

SV15. Number of pupils in building who are not now

transported. SV15 = _____

11.5 DISTRICT SUMMARY OF ELEMENTARY SCHOOL DATA SHEETS

FROM ELEMENTARY DATA SHEET COMPLETED FOR EACH SCHOOL, COMPILE INDIVIDUAL SCHOOL DATA INTO DISTRICT SUMMARIES ON THIS SHEET.

DV 1. District costs - the sum of salaries, operational supplies, instructional supplies and materials and utilities for all the elementary schools in the district. $_____

DV 2. District adjusted enrollment - total district elementary enrollment excluding kindergarten plus the FTE of kindergarten students. _____

DV 3. Percent of white elementary students in district. _____%

DV 4. Number of elementary classroom teachers in district (FTE). _____

DV 5. Square feet per pupil in district - sum of elementary building square footages - No. of adjusted elementary pupils (DV 3). _____

DV 6. Average age of elementary schools in district - sum of elementary building ages - No. of elementary buildings. _____

DV 7. Average building enrollment - obtained by taking district adjusted enrollment (DV3) and dividing by 8 the number of elementary schools in the district. _____

11.6 NUMERICAL VALUES OF CRITERIA

CALCULATE THE NUMERICAL VALUE OF EACH OF THE CRITERIA FOR EACH SCHOOL USING EQUATIONS GIVEN BELOW:

$$\text{Cost per pupil} = 100 \times \left[2.00 - \frac{SV1 + SV2 + SV3 + SV4}{\dfrac{SV7}{\dfrac{DV1}{DV2}}} \right] = X_1$$

$$\text{Space per pupil} = 100 \times \left[1.00 - \frac{SV11}{SV7} \right.$$

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11.7 RANK ORDER SCHOOL RETENTION VALUES

PLACE EACH SCHOOL RETENTION VALUE IN RANK ORDER (HIGHEST FIRST) ON THE APPROPRIATE BLANKS.

1._____ Elementary School = _____

3._____ Elementary School = _____

4._____ Elementary School = _____

5._____ Elementary School = _____

6._____ Elementary School = _____

7._____ Elementary School = _____

8._____ Elementary School = _____

11.8 Insurance Provision in School Leases

14 Del. Code §1057(b), requires prior approval by the State Board of Education of leases for buildings no longer used for school purposes, i.e. closed buildings. The Insurance Commissioner's Office has developed a model insurance section to be included in leases. Leases submitted for State Board of Education approval must include an insurance provision based upon this model or a provision approved by the Director of Insurance Coverage in the Insurance Commissioner's Office.

During the term of this lease, lessee, at its sole cost and expense, shall carry and maintain the following types of insurance in the amounts specified for the mutual benefits of the parties:

A. Fire and extended coverage insurance covering the leased premises and the improvements thereon, against loss or damage by fire, vandalism, malicious mischief, and against loss or damage by other risks now or hereafter embraced by "extended coverage", so called, in an amount of not less than full replacement value thereof without regard to depreciation.

B. Comprehensive general liability insurance, including property damage, insuring

both parties against liability for injury to persons or property occurring in or about the leased premises or arising out of the ownership, maintenance or use of occupancy thereof. The liability under such insurance shall not be less than $1,000,000.00 per occurrence single limit liability coverage for bodily injury and property damage.

Lessee shall have the privilege of procuring and obtaining all of such insurance through its own sources, and agrees to provide proof to the Board that such insurance coverages are in force and all premiums are fully paid. Such policies shall name the District and the Board as insureds.

12.0 STANDARDS

12.1 Lighting Standards

The general or ambient light levels in classrooms should be 30 foot-candles if supplementary lighting is available for difficult visual tasks such as work at the art easel, sewing machine, drafting, vocational equipment. If no supplementary lighting is available, the minimum ambient lighting level shall be 50 foot-candles.

12.2 Ventilation Standards

Outside air requirements for classrooms should be in accordance with the current ASHRAE 90 standards but no less than 4 cubic feet per minute, per occupant.

12.3 Renovation, Modernization and Additions Guidelines

The same as in Section 3.10 to include.

Roofs: Standing metal seam roof is the preferred choice for school roofs. The initial cost will be greater but when doing a life cost analysis, the standing metal seam roof will out perform and out cost the replacement of any other style roof.

Exterior Facade: It is recommended that the exterior facade of school facilities are finished with surfaces such as brick, stone, block. The use of dryvit, stucco would not be the most feasible finish for long term due to its ease for vandalism.

Interior Partitions: It is recommended that the interior partitions for classrooms, corridors, etc. are composed of block, glazed brick, brick or other hard surface material other than drywall partitions.

GeoThermal: If a geo-thermal system is utilized, it is recommended that the piping above all ceilings are insulated for condensation purposes.

Flooring: It is recommended that terrazzo or terrazzo substitute, vinyl tile, linoleum or other hard surfaced is used in corridors and common areas. Carpet should be used in libraries, auditoriums, and offices.

13.0 Suggested Building Construction Materials

A. Roofing Materials

1. Standing Seam Metal Roof
2. Asphalt Shingles
3. Modified Bituminous
4. Single Ply Membrane - PVC, EFDM, CSPE
5. ERMA
6. Coal Tar Pitch
7. Coated Polyurethane Foam

B. Exterior Finishes

1. Brick
2. Block
   a. Standard Painted
   b. Ground, Split or Broken Face
3. Metal
   a. Panels
   b. Sheets
   c. Pans
4. Stucco
   a. Portland Cement Plaster
   b. EFIS
5. Tile
   a. Porcelain
   b. Ceramic
   c. Plastic
   d. Clay

6. Pre-Cast Concrete

C. Windows

1. Aluminum Clad Wood
2. Vinyl Clad Wood
3. Aluminum
4. Steel
5. Wood

D. Emergency Lighting and Exit Lighting

1. LED exit signs
2. Stand alone unit battery pack
3. Halogen emergency lights

E. Flooring

1. Terrazzo
2. Hard tile
3. VCT
4. Sheet vinyl
5. Stained concrete
6. Wood
7. Carpet faced tile

F. Wall Construction

1. Masonry
2. Gypsum Board on Metal Studs
3. FPR
4. Modular Panels
5. Tile

G. HVAC Systems That Work Well Together

1. Preferred System Types

    a. Closed loop heat pumps for larger schools (typically high schools) with large areas of internal heat gain. Project budget must address additional capital costs.

    b. Four pipe (or two pipe projects, tight budget projects, or heating only projects) with centralized screw chillers (2,200 tons) or centrifugal chillers and high efficiency modular boilers (condensing type for natural gas fired).

2. Special Features

    a. Dedicated make-up air/exhaust systems with enthalpy-type heat recovery technology; combines energy efficiency with the implicit humidity control of enthalpy-type heat recovery.

    b. Open system architecture for control systems. Proprietary systems should be avoided. Nationally recognized open system architectures keep system maintenance and expansion options open.

3. Systems to Generally Avoid

    a. VAV Systems - Work fine in some offices but often reduce air flow rates in classrooms causing problems.

    b. Packaged Roof Top Equipment - Cheap, but cost more in the long run with lower efficiencies and equipment life.

14. SATELLITE SCHOOL AGREEMENTS

14.1 Satellite Schools

Satellite school facilities shall be subject to the same health and safety codes required of other public school facilities. Plans and specifications of proposed satellite school facilities shall be submitted for review and approval, as appropriate, to the following agencies by the local district or charter school board.

a. Fire Marshal of Appropriate Jurisdiction

b. Architectural Accessibility Board

c. Division of Public Health for food preparation and serving area and swimming pools

d. Department of Natural Resources & Environmental Control, wastewater and erosion control

e. Local Building Officials to provide Certificate of Occupancy or Approval

f. State Risk Manager

g. State Department of Education

2. Documentary evidence of review and approval by the authorities listed as a. through g. shall be provided to the State Department of Education.

3. Upon receipt of the aforementioned documentary evidence, the State Department of Education shall cause a review of the plans or inspection of the proposed facilities to be conducted by appropriate Department staff to determine the adequacy of the facilities for the intended educational purpose considering such items as size, adequacy of sanitary facilities, adequacy of lighting and ventilation, etc.

4. Certificates of Occupancy or Occupancy Permits shall be obtained from the appropriate jurisdictional authorities prior to occupancy of the facilities by the satellite school. A copy of such certificate or permit shall be provided to the State Department of Education. The satellite school facilities shall be subject to the same periodic inspections for health and safety as other public schools.

5. The reorganized school district or charter school shall confer with the State Risk Manager

regarding any liabilities that they and their employees may be subject to and shall provide appropriate protection and coverage for same.

15.0 CUSTODIAL ALLOCATIONS

15.1 EXPERIENCE

Custodians may be allowed one (1) year's experience for each full year of experience in similar employment.

15.2 ALLOCATION

A. The custodial units allocated to a district may be assigned to various locations at the discretion of the local school board and the chief school officer.

B. Districts are allocated one (1) full-time custodial employee for each twelve (12) custodial units for a major fraction thereof. The number of units in each school is determined in the following way:

1. One (1) unit for each classroom or its equivalent. What is counted as "equivalent" shall be determined by the Department of Education.
2. One (1) unit for a small auditorium (less than 150 students).
3. Two (2) units for a large auditorium (more than 150 students).
4. One (1) unit for a cafeteria having a seating capacity up to 150. One (1) unit for each 150 capacity or major fraction thereof.
5. One (1) unit for a gymnasium.
6. One (1) unit for a combined auditorium and gymnasium (less than 150 students)
7. Two (2) units for a combined auditorium and gymnasium (more than 150 students).
8. One (1) unit for two locker rooms.
9. Seven (7) units for a swimming pool.

10. Units for a central heating plant are determined from the following table:

No. of Classrooms or equivalent	No. of Units
1-6	½
7-9	¾
10-15	1
16-20	1 ½
21-25	2
26-30	2 ½
31-35	3
36-40	3 ½
41-45	4
46-50	4 ½
51-55	5
56-60	5 ½
61 or more	

11. One-half (1/2) unit for each developed acre of the school plant site, not to exceed 48 acres on a given site.

C. Part-time custodians equivalent to one or more full time custodians may be employed with the provision that proper records will be maintained for review.

D. A full custodial staff for a new school building may be employed one (1) month prior to the pupil occupancy of the building.

E. The termination date for custodial units in buildings closed shall be six weeks from the last day classes are held in the building.

F. Buildings which are closed and retained under the control of the school district shall lose all custodial units except units provided for site maintenance and heating.

G. When the school district signs a lease or in any way loses direct control of the building, such as transfer or sale legislation, the custodial units for site maintenance and heating shall terminate on the effective date of the lease or legislation.

H. When the function of a building is changed it shall be reevaluated for custodial units.

I. All custodial unit allocations shall be determined and approved by the Department of Education.

15.3 CLASSIFICATION

A. Custodian-Fireman

(1.) When there is only one (1) custodian in a district, the custodian may be classified as a custodian-fireman.

(2.) There shall be only one custodian-fireman employed in each building.

B. Chief Custodian

(1.) A chief custodian may be classified chief custodian when at least two other full-time custodians or the equivalent are employed in the school building or district.

(2.) There can be only one (1) chief custodian in a building, but there can be as many chief custodians in a district as there are buildings in the district with three or more custodians.

C. Maintenance Mechanic

(1.) Each school district may classify up to ten (10) percent of the total number of custodial personnel as maintenance mechanics. Qualifications shall be as defined by the employing board.

D. Skilled Craftsperson

(1.) Each district may classify an incumbent in one or more of its Maintenance Mechanic positions as a Skilled Craftsperson for purposes of this section if the incumbent:

(a.) has received a certificate as a union journeyman or equivalent in any of the following fields: Boiler Maker,, Carpenter, Electrician, HVAC Mechanic, Mill Wright, Heavy Machinery Operator, Pipe Fitter, Plumber, Roofer, or Sheet Metal Worker; or

(b.) possesses a current state license in any of the fields listed in paragraph (a) above: or

(c.) is an Automobile Mechanic who possesses two or more National Institute for Automotive Service Excellence (ASE) Certifications in the Automotive, Truck or School Bus categories: or

(d.) is a Boiler Maker who possesses either an AWS or ASME Welding Certification; or

(e.) is a Computer Technician who possesses an A Plus Certification from Comp TIA (Computing Technology Industry Association): or

(f.) is an HVAC Mechanic who possesses two or more certifications from manufacturers of digital control systems in use by the District, or possesses a certification from a manufacturer of centrifugal chillers used within the district; or

(g.) possesses two or more Hazardous Material Certifications from the State of Delaware, OSHA, or the United States Environmental Protection Agency; or

(h.) is a Pipe Fitter who possesses an AWS or ASME Welding Certification; or

(i.) is a Roofer who possesses Training Certification from two or more manufacturers of Roofing Systems in use by the District; or

(j.) is a Burner Mechanic who possesses a certification from a manufacturer of oil or gas burners used within the District.

E. Building and Grounds Supervisor

1. Each district with ninety-five (95) or more custodial units may employ a school buildings and grounds supervisor according to the salary schedule. This position is included in the total number of custodial personnel allowed. Section 1311 (c).

15.4 CERTIFICATES

A. The following hourly requirements shall be met in order to receive the Custodial Certificates listed below. The certificate guarantees additional pay as specified in the Del. C, but only the local school district can change a custodian's classification.

120 class hours minimum (issued only to those who hold this position)	Building and Grounds Supervisor
120 class hours	Chief Custodian Certificate
90 class hours	Fireman Custodian Certificate
60 class hours	General Custodian Certificate

16.0 PROCEDURES - SCHOOL BUS SAFETY

A. Planning School Sites for School Bus Safety

1. In the selection of school sites, major consideration should be given to the safety of pupils riding school buses. These vehicles will be forced to utilize the roads in and around the school area. High density traffic flow near school exits and entrances due to the proximity of freeways, periodic commercial traffic, or massive commuter traffic from industrial plants should be avoided. It must be recognized in many cases that the area designated for the school site has been selected prior to the hiring of an architect.
2. The location of the school plant on a site should be determined so as to provide safe means of ingress and egress for all pupils. When Boards of Education are considering school sites, the state, county, and local roads servicing the area should have a minimum 30-foot paved width where loading and unloading is contemplated off the main thoroughfare in front of the school, at least a 40-foot wide paved road should be provided.
3. It is possible that Boards of Education may have land donated to them that could be classified as unsafe for busing due to its traffic density, type of terrain, or lack of safe loading and unloading facilities. The cost of eliminating these unsafe conditions may exceed the purchase price of a more desirable parcel of property. In such instance it might be wiser not to accept the donated land but attempt to secure a site that would provide for the safety of students that would have to be transported to the school for years to come.
4. All school bus traffic should be considered as one-way traffic flow, preferably with the service door side of the bus always next to the loading and unloading zone.

5. Wherever possible, separation should be maintained between bus traffic and regular flow as constituted by parent, pupil, service, teacher, and administrative traffic.
6. Whenever possible, roads should not be constructed that completely encircle a school. Areas that students must cross to engage in outside activities should be free of all vehicular traffic.
7. All school bus roads entering into or exiting from main arteries should have a 50- to 100-foot radius turn on inner edge of pavement. Within the school site, roads should have at least a 60-foot radius on inner edge of pavement on all curves. The reason is self-evident when we understand that school buses are approximately eight feet wide and thirty-five feet long. In order to minimize driveway entrances and exit widths, island construction may be required. Driveway openings must conform to local requirements, and in particular, driveway openings on state highways should be approved by the State Highway Department.
8. It is recommended that curbing, with suitable drainage, be constructed on all roads utilized by the school bus within the school site. A minimum of 30 feet should be maintained for one-way traffic and 36 feet for two-way traffic. Roads should be wider on all curves.
9. It is desirable to separate student, teacher, administrative, and visitor and parent parking from the loading zone utilized by the school bus.
10. In the construction of parking areas, it might be advantageous if only the visitor parking area were located in close proximity to the school. Care should be exercised in the placement of these areas to preclude the visitor from crossing the school bus traffic pattern.

11. Architects, prior to the designing and laying-out of roads and parking lots, should consult with the school administration on the following items:

    a. Total number of pupils and school personnel.

    b. Number of present and projected pupils to be transported.

    c. Number of buses.

    d. Method of transportation.

        - Publicly owned
        - Contract

        Type of schedule -

        - Staggered
        - Single (one opening and closing time)

    e. Extra-curricular activities that would necessitate use of school buses.

12. Where buses are parked on the school grounds, consideration should be given to the reflective surfaces of windows, doors, and windshields in order to prevent undue glare from these parked vehicles being transmitted to the students in the classrooms.

13. Attention should be given in planning school bus parking and loading areas so as to encourage diagonal parking. Positioning of buses in slant formation provides the safest method of loading and leaving school grounds. Where this is not possible, bumper-to-bumper positioning of buses would be the next best solution. Either type of parking should exclude the necessity for backing the school bus.

14. In the construction of sidewalks for students walking to school, considerations should be given to the elimination of crosswalks in front of buses.

15. In the analyses of many architects' plans for school buildings, bus canopies were included for consideration. In the majority of cases such units were not

considered feasible for schools with large enrollments. Canopies are advantageous in schools where handicapped children are in attendance. Height of the canopy, obviously, should accommodate the highest school buses.

16. In the construction of curbs, where school buses will be utilized, consideration should be given to the performance specifications set forth by the State Highway Department.
17. In areas that will be constantly utilized by heavy-weight school buses, the type of pavement and base should be that specified by the State Highway Department.
18. All roads within the school site should be graded to avoid dips and hollows that would impair the vision of motorists using the roadways. It is suggested that a maximum standard of not more than a 5 percent grade be allowed for roads on school sites. At entrance and exit points a maximum grade of 2 percent should be adhered to. Bumps built into the road to slow traffic should not be used where buses are required to travel.
19. Vehicular traffic should never be required to turn a blind corner on any school site.
20. In the planning of a school and the location of access and service roads, conditions should never be set up that would require school buses to be backed on the school premises.
21. All pupil loading and unloading areas should be provided for within the school site.
22. Whenever possible, parents should be assigned a separate student pickup point some distance from the school bus loading areas. Accident-inducing conditions are created by parents picking up and discharging students haphazardly in front of

and adjacent to the building. The condition is greatly increased during inclement weather.

23. In the provision of loading facilities, consideration should be given to separate areas especially designed for the handicapped and trainable students, including entrance ramps and handrails.
24. In the planning of all roads and loading areas, architects should take into consideration the fact that emergency vehicles must have access to the school at all times.
25. Care should be taken in the planting of trees and shrubbery on the school site so as not to obstruct the vision of the motorist.
26. Where necessary, traffic control devices should be provided to assist school traffic in entering the regular traffic flow.

EVALUATION CHECKLIST FOR SCHOOL BUS DRIVEWAYS

IN THE VICINTY OF THE SCHOOL

NAME OF THE SCHOOL_____ DATE_____

LOCATION OF THE SCHOOL_____

	YES	NO	DOES NOT APPLY
1. School loading and unloading areas are provided within the school site.	____	____	_____
2. When loading and unloading of school children takes place on main thoroughfare in front of the school, the roadway has a minimum width of 40 feet of hard surface.	____	____	_____
3. The driveway leading to and from the loading and unloading area for school buses has a minimum width of 30 feet of paved surface.	____	____	_____
4. If diagonal parking is provided for buses in the loading and unloading area, a minimum width of 60 feet of paved surface is available.	____	____	_____
5. Parking for loading and unloading of children at school is bumper-to-bumper ( ) or diagonal ( ); in either case, the necessity for backing does not exist.	____	____	_____
6. The school bus is not required to back anywhere on school property.	____	____	_____
7. All school bus movement on the school grounds is one-way in a counter-clockwise direction.	____	____	_____
8. School bus traffic does not completely encircle the school building.	____	____	_____
9. The driver has proper sight distance at all points along the driveway.	____	____	_____

10. Crosswalks for students do not exist within the entrance to the school bus driveway. ____ ____ _____

11. Separation is maintained between school bus traffic and all other traffic such as parent, student, staff, and service personnel. ____ ____ _____

12. Vehicular pickup points for non-bus passengers are on separate driveway from that used by school buses. ____ ____ _____

13. Curbing and suitable drainage are provided along driveways used by school buses. ____ ____ _____

14. Curbing and driveway construction comply with State highway specifications ____ ____ _____

15. At ingress and egress areas to the school there is a minimum radius on inner edge of driveway pavement of from 50 to 100 feet. ____ ____ _____

16. Within the school site there is a minimum radius on inner edge of driveway pavement of 60 feet. ____ ____ _____

17. Between reverse curves, at least a 50-foot tangent section is provided. ____ ____ _____

18. At ingress and egress points a maximum grade of 2-percent is adhered to. ____ ____ _____

19. A maximum grade of 5-percent is adhered to on the school bus driveway within the school site. ____ ____ _____

NOTE: A "yes" answer for each of the items indicates a well-planned traffic pattern for school buses.

APPENDIX A

APPENDIX B

APPENDIXES

APPENDIX A

A. GLOSSARY OF TERMS

1. Glossary of Building Terms

a. Alterations

Minor changes made internally that do not involve structural changes.

b. Built-In Equipment

Equipment that is an integral part of the building and permanently attached thereto.

c. Floor Plan

A drawing that shows clearly and accurately the shape of the building, location and square footage

d. Maintenance of Plant

Those activities which are concerned with keeping the grounds, buildings, and built-in equipment at their original condition of completeness or efficiency, either through repairs or by replacements with property of equal value and efficiency.

e. Maintenance of Site

Repairs and replacements of all developed land, except structures (buildings).

f. Modernization

The changing of the design, fixtures, fittings, furnishings, appearance, and service systems of a building to bring it up to a contemporary state consistent with the needs of changing educational programs.

g. Operation of Plant

Those activities which are concerned with keeping the physical plant open and ready for use. It includes cleaning, disinfecting, heating, moving furniture, caring for grounds, and other such housekeeping activities as are repeated somewhat regularly. It does not include repairs or replacements.

h. Structural Renovation

The general overhauling of a complete building or major section thereto to better adapt it for continued use for the school program or to include any major permanent structural improvement to a building or a different type of occupancy.

i. Cosmetic Renovation

The renewing of a building or part thereof without changing structure, function, or design.

j. **Repairs**

The restoration of a given piece of property to original condition or completeness or efficiency from a worn, damaged, or deteriorated condition.

k. **Replacement**

The replacing of a piece of property with another new material or like material.

2. **Glossary of Accounting Terms**

a. **Abstract of Title**

A document showing the condensed history of the title to property, containing portions of all conveyances or other pertinent instruments relating to the estate or interest in the property, and all liens, charges, encumbrances and releases.

b. **Accounting System**

Records and procedures for the assembling, recording and reporting of information related to the financial operations of a fund or governmental unit.

c. **Acquisition or Taking**

The process of obtaining land, or that which is acquired or taken.

d. **Adjustment of Improvements**

Where the taking for educational purposes would include buildings or other improvements the State and the grantor may agree that the grantor may retain title to such improvements and such improvements may be moved or readjusted by the district for the property owner or payment may be made to the property owner to reimburse him for the established cost of such removal or readjustment providing that such removal or adjustment is not more costly than outright purchases.

e. **Allot**

To divide an appropriation into amounts for certain time periods or for specific purposes.

f. **Allotment**

The amount allotted for a certain time or purpose.

g. **Appropriation**

An authorization granted by the legislative body to make expenditures and to incur obligations for specific purposes. An appropriation is usually limited in amount and in the time during which it is expended.

h. Appropriation Expenditure

An expenditure chargeable to an appropriation.

i. Audit

The examination of some or all of the following items: documents, records, reports, systems in internal control; accounting procedures and other evidence, for one or more of the following purposes: (a) determining the propriety, legality and mathematical accuracy of proposed or consummated transactions; (b) ascertaining whether all transactions have been recorded; and (c) determining whether transactions are accurately reflected in the accounts and in the statements drawn therefrom, in accordance with accepted accounting principles.

j. Award

The written notice by the district's contracting officer to the successful bidder.

k. Bid

The offer of the bidder submitted in the prescribed manner to furnish all labor, equipment and materials and to perform the specified work within the time prescribed therein for the consideration of payment at the prices stated in the bid schedule.

l. Bond Fund

A fund provided by the legislative act, expenditures from which are designated for specific purposes as outlined in Department resolutions. The financing for the fund is derived from State of Delaware Bonds.

m. Budget

A financial plan showing estimates of the future costs of proposed operating or project activities for a given period and the proposed means of financing them for the purpose of establishing performance standards and current operating controls. The internal budget may allocate the appropriation into sums setting forth in detail estimated amounts of the appropriations for each major function and to subdivisional units of major functions when considered necessary.

n. Certificate of Necessity

A document issued by the State Board of Education covering one or several separate projects in a school district to be performed in that district.

o. Certificate of Title

A document based on a title search stating that title or interest in property is vested in a designated person and showing outstanding liens, charges or other encumbrances.

p. Change Order

A written order issued by the engineer to the contractor requiring the contract work to be performed in accordance with a change or changes that involve an adjustment in the basis of payment determined to be necessary under the provisions of the specifications, or requiring performance of any unforeseen work essential to complete the contract but for which the basis of payment may or may not be provided in the contract.

q. Clearing

Removal prior to building construction of improvements title to which is vested in the Stae, or the local school district.

r. Concurrent Audit

An audit or project costs on a current basis following the recording of the expenditure by the Department. Actually, the word concurrent in most cases would mean the month following the recording of costs and reconciliation of the business practices employed including the accounting system and the effectiveness of the system, recommendations for changes in/or acceptance of the procedures, and the audit of results (costs) for a particular period to assure reasonableness and accuracy.

s. Condemnation

The process by which property is acquired for educational purposes through legal proceedings under power of eminent domain.

t. Construction Items

Items shown on the approved plans for rehabilitation of the adjoining property required for the proper completion of the project such as reconstruction or adjustment of driveways, fences, etc.

u. Continuing Appropriation

An appropriation which, once established, is automatically renewed without further legislative action for a specified period or periods until altered or revoked.

v. Contract

The written instrument executed by the contractor and the contracting officer, by which the contractor is bound to furnish all labor, equipment and materials and to perform the specified work, and by which the school district is obligated to compensate the contractor at the prices set forth therein.

w. Contractor

The individual, firm or corporation, undertaking the execution of the work under the terms of the contract and acting directly or through his, their, or its agents, employees or subcontractors.

x. Damages

Compensation awarded by law to one injured in his person or property.

y. Deed

A duly attested written instrument, under seal, conveying real property or interest therein.

aa. Disbursement of Education Funds

Payment from public funds for contracts, right-of-way, etc. by a check, voucher, warrranty, or similar documents as distinguished by a mere transfer from one department to another.

bb. Easement

A right acquired by public authority to use or control property for a designated education purpose.

cc. Encroachment

Those improvements or other facilities title to which is generally vested in private owners which lie upon or touch upon the education right-of-way and which are not a necessary part of the completed educational facility.

dd. Encumbrance

An accounting procedure that sets aside available funds before ordering goods and services, to ensure the availability of funds when payment is requested. Obligations in the form of orders issued, contracts awarded, commitments for services, or any other transactions which reserve such amount of an appropriation to cover payment therefor. Such items cease to be encumbrances when paid or when liability therefor is established.

ee. Expenditures

Where accounts are kept on the accrual basis, this term designates total charges incurred, whether paid or unpaid, including expenses, provision for retirement of debt, and capital outlays. If accounts are kept on the cash basis, the term covers only actual disbursements for these purposes.

ff. Fiscal Period

Any period at the end of which a governmental unit determines its financial condition and the results of its operations and closes its books. For the State of Delaware, the fiscal period runs July 1 to June 30.

gg. Fund

A sum of money or other resources segregated for the purpose of carrying on specific activities or obtaining certain objectives in accordance with special regulations, restrictions or limitations and constituting an independent fiscal and accounting entity.

hh. General Fund

The fund appropriated by the Legislature which is available for any legally authorized purpose and which is therefore used to account for all revenues and all disbursements not provided for in other funds. The General Fund is used to finance the ordinary operations of any agency. This fund is used to account for all receipts from specified sources which are available for the purpose of financing the ordinary activities of the State Board of Education as authorized by law, including all legally authorized activities not chargeable to special funds, including operation, maintenance and construction.

ii. Guarantee Title

A title, the validity of which is insured by an abstract, title or indemnity company (sometimes called Insured title).

jj. Indirect Charges

Costs incurred which from its nature cannot be readily allocated to an activity or function but must be prorated to the functions benefited.

kk. Interdepartmental

Refers to transactions for services performed by one agency or subdivision of the Department for another agency or subdivision.

ll. Internal Check

An accounting method or procedure so designed that the work performed by certain employees as far as practicability is complementary to that performed by others, thus insuring the general correctness of the records and the accountability for funds.

mm. Internal Control

Internal control comprises the plan of organization and all of the coordinate methods and measures adopted within a business to safeguard its assets, checks the accuracy and reliability of its accounting data, promotes operational efficiency, and encourages adherence to prescribed managerial policies.

nn. Just Compensation

A full and fair equivalent for the loss sustained by the owner as a result of taking or damaging of private property for educational purposes.

oo. Marginal (Or Excess) Land

Land bordering the right-of-way obtained or controlled to protect the school and its future improvements.

pp. Market Value

The highest price for which property can be sold in the open market by a willing seller to a willing purchaser, neither acting under compulsion and both exercising reasonable judgment.

qq. Negotiation

The process by which property is sought to be acquired for educational purposes through discussion, conference and final agreement upon the terms of a voluntary transfer of such property.

rr. Non-Revenue Receipts

Collections, other than revenue, such as receipts from loans, where the liability is recorded in the fund in which the proceeds are placed and receipts of recoverable expenditures.

ss. Objective Classification

A system of classifying actual or contemplated expenditures in prescribed terms of its physical or service characteristics as distinguished from the function or activities furthered thereby. The purpose of this classification is to permit analysis of obligations and expenditures according to types of articles or other items involved, e.g., personal service, materials and supplies, and so forth.

tt. Obligation

An authorized order, requisition or engagement that represents an expenditure of State funds incurred in compliance with statutory provisions.

uu. Open-End Encumbrance

An accounting procedure that sets aside available funds for goods and services automatically charged as part of a normal operating procedure without being ordered with a specific purchase order, to ensure the availability of funds when payment is requested.

vv. Option

A written agreement granting a privilege to acquire property or interest therein at a fixed price within a specified period.

ww. Outside Employees

Persons not regularly on the State's payroll; usually private attorneys employed as negotiators or acquisition agents.

xx. Performance Bond

The security required to be furnished by the contractor to guarantee completion of the work covered by the contract in conformity with the terms thereof.

yy. Personal Property

Contents of a store or a home or related items which are not attached to the land or to the improvements on the land.

zz. Petty Cash System

A system for handling minor disbursements whereby a fixed amount of money, designated as petty cash, is set aside for this purpose. Disbursements are made from time to time as needed. At certain intervals, a claim for reimbursement is submitted for the amount disbursed, and the petty cash is replenished for the amount of the disbursements, usually by a check drawn on the fund or funds designated. The total of petty cash plus unreplenished disbursements must always equal the fixed sum of cash set aside.

aaa. Plans

All drawings or reproductions of drawings pertaining to the details of the contract work and which are made a part of the contract.

bbb. Project

The work performed or to be performed which is described in a Certificate of Necessity.

ccc. Purchase Agreement

The complete written agreement between the school district and the property owner signed by both parties setting out the total right-of-way granted and setting the total consideration paid therefor. Depending upon the procedures of the individual State, this document may be called a contract of sale, an option agreement, a deed, an easement, etc.

ddd. Purchase Order

A document that authorizes the delivery of specified merchandise or the rendering of certain service and shows the amount of funds authorized.

eee. Receiving Report

The fourth copy of a purchase order, used to indicate quantities actually received and matched against the invoice.

fff. Refund and Reimbursement Receipts (Expenditures Reducing Items)

Receipts that reduce expenditures in the current fiscal year must be coded 902. Expenditure reducing receipts of a prior fiscal year are coded 901.

ggg. Reimbursement

Cash or other assets received as a repayment of the cost of work or services performed; or of other expenditures made for, or on behalf of, a governmental agency or department.

hhh. Requisition

A written request, usually from sub-agency to the purchasing officer of the agency or between agencies, for specified articles or services.

iii. Retainage

That portion of progress payment which is withheld to insure proper completion of a project. Usually pertains to payments to contractors for construction in place.

jjj. Revenue

This term designates additions to the General fund or Special Funds as reported to the State Treasurer on the Cash Collection Report. Accounts in this category are credit balance accounts which represent additions to assets (usually cash or receivable) which do not increase a liability nor represent the recovery of an expenditure, and which do not correspondingly reduce an asset.

kkk. Special Fund

Any fund provided by legislative act which is restricted as to some special use of expenditures to the specific purposes designated by law and with respect to such funds. The term applies to all funds other than the General Fund.

lll. Unallotted Balance of Appropriation

An appropriation balance available for allotment.

mmm. Unencumbered Balance of Appropriation or Allotment

That portion of an appropriation or allotment not yet expended or encumbered; the balance remaining after deduction of the accumulated expenditures and outstanding encumbrances from the appropriation or allotment.

nnn. Unexpended balance of Appropriation or Allotment

That portion of an appropriation or allotment which has not been expended; the balance remaining after deduction from the appropriation or allotment of the accumulated expenditures.

ooo. Unliquidated Encumbrances

Encumbrances outstanding.

ppp. Voucher

A document that evidences the authorized approval of transactions; often used in disbursing petty cash funds.

qqq. Work Order

A written order authorizing and directing the performance of certain specific work which is issued to the person who is to direct the work and will usually contain the following information and conditions: (1) an identifying number; (2) a complete and accurate description of the work to be performed; (3) the exact geographical location and limits; (4) any special specifications which must be observed; (5) a limitation as to amount; (6) a limitation as to time within which the work must be completed.

APPENDIX B

APPENDIX C

APPENDIX D

SCHOOL CONSTRUCTION PROJECT CHECKLIST

Recognized and justified need

Included in 3 year Major Capital Improvement Program

Scoped (School Construction Formulas)

Estimated Cost (include all fees e.g. design, inspection, audit, fire marshal review, permits, etc.)

Capital Improvement Program approved by State Board (early Fall)

Certificate of Necessity

Requested

Approved and issued by State Board

Referendum

Election date (5-15 days prior to State Board meeting) selected and approved by local board

Approval requested and approved by State Board

3 weeks notice on all school buildings, 2 county-wide papers

10 public places

Last notice no later than 5 days prior to election date

Authorization and appropriation by Legislature (end of June)

Select Site (s)

Reviewed and approved by State Planning Office (LUPA)

Approval requested of and granted by State Board

Site Acquisition

Development of Educational Specifications

Reviewed and approved by

-Local Board

-DOE

Architect-Engineer (Designer) Selection

Contract review and approval by Dept. of Administrative Services

Division of Facilities Management

Schematic Plans

Review and approval by

-Local Board

-DOE

Preliminary Plans

Review and approval by

-Div. of Facilities Management

-Local Board

-DOE

-State Board

Note: Optional Agencies

- Architectural Accessibility Board
- Fire Marshal's Office
- Building Code Officials
- Public Health (food and swimming pools)

Final Plans

Review and approved by

Fire Marshal

Local Board

Division of Facilities Mngt.

- Engineering & Operations

- AAB

  Public Health (food & swimming pools)

  Building Code Officials

  DOE

  State Board

Advertise

  County-wide paper two consecutive weeks (min.)

Inspection Service Contract

Pre-bid (15 days before bid opening)

  Set sub list (min.)

Bid

  Specific time and place for opening

Award

  Lowest "responsible" bidder

  Up to 60 days after opening

  Contract not valid until PO processed

Construction

Acceptance and Occupancy

  Residual funds revert one year after acceptance/occupancy

  Follow-up warranty inspection - **before warranty expires**

APPENDIX E

APPENDIX F

APPENDIX G

APPENDIXES

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SAMPLE

DATE

Education Associate
School Plant Planning & Maintenance
Department of Education
P. O. Box 1402, Townsend Building
Dover, DE 19903-1402

Dear _____:

RE: Request for State Board of Education Approval of Preliminary Plans for the
_____(Project)_____

Request this item be included on the agenda of the State Board's (**Month**) meeting. The education specifications were reviewed and approved on **(Date).** The schematic plans were reviewed and approved on **(Date)** Any comments thus received have been responded to.

The following reviews and approvals have been or will be completed prior to the meeting date:

a. Division of Facilities Management/Operations & Engineering
b. DOE Staff
c. District School Board

Should any applicable review and approval not be received before the State Board's meeting date, we will immediately contact you and request withdrawal of the item from the agenda.

Sincerely,

Superintendent

NOTE: While not a requirement at the preliminary stage, it would likely be beneficial to have at least informed and/or consulted with the following regulatory agencies.

a. Architectural Accessibility Board (generally not applicable for non-structural changes e.g. roof repair/replacement or painting projects)
b. Division of Public Health (food service and swimming facilities)
c. Fire Marshal
d. Local Planning and/or Building Code Officials (as applicable)

Early identification of necessary compliance items would preclude costly revisions at later stages of design.

Department of Education review and approval of preliminary plans are required by 29 Del. Code §7511.

SAMPLE

DATE

Education Associate
School Plant Planning & Maintenance
Department of Education
P. O. Box 1402, Townsend Bldg.
Dover, DE 19903-1402

Dear _____:

RE: Request for State Board of Education Approval of Final Plans for the
_____(Project)_____

Request referenced item be included on the agenda of the State Board's (**Month**) meeting. The preliminary plans were reviewed and approved on (**Date**).

The following reviews and approvals have been or will be completed prior to the meeting date:

a. Division of Facilities Management/Operations & Engineering
b. Architectural Accessibility Board (generally not required for non-structural changes, e.g. roof repair/replacement or painting projects)
c. Division of Public Health (when project involves food service facilities or swimming pools)
d. Fire Marshal
e. District School Board
f. Local Planning and/or building code officials (as applicable)
g. District School Board

Should any applicable review and approval not be received before the State Board's meeting date, we will immediately contact you and request withdrawal of the item from the agenda.

Sincerely,

Superintendent

NOTE: Department of Education review and approval of final plans is required by 29 Del. Code §7511 and 7518. The Department of Administrative Services (Facilities Management) must approve plans per 29 Del. Code §7419.

PROPOSED SCHOOL BUILDING BUDGET

School District_____ Building _____

1. Land Acquisitions

2. Building Contracts

   A. General _____
   B. Heating/Ventilating _____
   C. Plumbing _____
   D. Electrical _____

3. Architectural Fees _____

4. Engineering Fees _____

5. Consultant Fees _____

6. Administrative Expenses _____

7. Legal Services _____

8. Site Development _____

9. Contingencies and Other Costs _____

10. Inspection and Auditing _____

11. Furniture and Equipment _____

12. Supplies and Other Materials _____

Total _____

Architectural Firm_____

Date_____

Funding

FY____ CHAPTER____ VOLUME_____ STATE_____ LOCAL____ TOTAL____

CHECKLIST FOR APPROVAL OF PURCHASE ORDER FOR GENERAL CONSTRUCTION

School District_____

Project_____ C.N.#_____

Funding

FY____ CHAPTER____ VOLUME_____ STATE_____ LOCAL____ TOTAL____

DATE

Educational Specifications Approved by Dept. of Education (attach copy of approval) _____

Schematic Plan Approval by Department of Education (attach copy of approval) _____

Preliminary Plan Approval by State Board of Education (attach copy) _____

Final Plan approval by State Board of Education (attach copy) _____

Approval by State Board of Health (if kitchen, cafeteria or swimming pool is involved) (attach copy) _____

Approval of State Fire Marshal and Local Fire Marshal (if needed) (attach copy) _____

Approval of Final Plans by State Architect _____

Approval to Bid by State Architect (attach copy) _____

Copy of Advertising for Bids _____

Copy of Bid Tabulations _____

Copy of Local Board of Education Minutes Approving
Award of Contract _____
Copy of Budget _____

PERSONNEL CERTIFICATE

STATE OF DELAWRE }
}
COUNTY OF _____}

I, _____. Superintendent of Schools of the _____ School District, a school district of the State of Delaware, located in the County of _____, and exofficio Executive Secretary of the Board of Education of said School District, DO HEREBY CERTIFY as follows:

1. All the territory composed within said _____ School District is also with the boundaries of said Counties of _____.

2. The following persons and only the following persons have been members of the Board of Education of said School District since _____, 19____:

NAME	DATE OF ELECTION OR APPOINTMENT	BEGINNING OF TERM	END OF TERM

3. At all times since _____, 19_____, the following persons and only the following persons have been President of said Board of Education, having been elected to such office by said Board of Education.

NAME	DATE OF ELECTION	BEGINNING OF TERM	END OF TERM

4. At all times since _____, 19_____, I have been Superintendent of Schools of said School District having been appointed to such office by the Board of Education of said School District on _____, 19_____, I was designated Executive Secretary of said Board of Education to service until June 30, 19_____.

5. The seal, an impression of which appears below, has been adopted as the seal of said School District by the Board of Education of said School District. No other seal is used as the seal of said School District.

IN WITNESS WHEREOF, I have hereto set my hand and have hereunto affixed the seal of said School District, this _____ day of _____, 19_____.

_____
Superintendent of Schools of

Seal

_____
School District

BEST COPY AVAILABLE

STATE OF DELAWARE :
:
COUNTY OF :

I, _____, Secretary of the Board of Education of

_____ School District in _____ County and

State of Delaware DO HEREBY CERTIFY as follows:

1. A regular meeting of the Board of Education of _____ School District was held on _____, 19___, with a quorum of the Board present and minutes of said meeting have been duly recorded in the minute book kept by me in accordance with the law for the purpose of recording said minutes of said Board.

2. I have compared the attached extract with said minutes so recorded and said extract is a true copy of said minutes and the whole thereof insofar as said minutes relate to minutes referred to in said extract.

3. Said minutes correctly state the time when said meeting was convened and the place where such meeting was held and the members of said Board who attended said meeting.

IN WITNESS WHEREOF I have hereunto set my hand, and have hereunto affixed the

seal of said school district this _____ of _____, 19____.

_____
Secretary of the Board of Education

DEBT#44,p2-4

EXTRACTS FROM THE MINUTES OF MEETING

The Board of Education of _____ School District in the County of _____ State of Delaware convened on _____, 19____.

PRESENT:

ABSENT:

_____ introduced the resolution entitled "RESOLUTION AWARDING THE $_____ SCHOOL BUILDING BOND OF _____", a true copy of which is attached, and _____ seconded the motion. The resolution was adopted by the following vote:

Ayaes:

Noes:

WHEREAS, the Board of Education has consulted with the Issuing Officers of the State of Delaware concerning the purchase of the $_____ School Building Bonds of _____, dated _____, 19____ by the State of Delaware; and

WHEREAS, the State of Delaware sold its bonds on _____ to provide, in part, fund sufficient to purchase the above bonds of the School District and has advised the School District after consultation with them, that the bonds of the School District will bear interest at the rate _____% per annum, payable semi-annually on _____ and _____ and will mature in amount and in years as follows:

NOW THEREFORE,

BE IT RESOLVED by the Board of Education of _____ School District, in the county of _____ that the above bonds of the School District mature in amounts and years and with interest payable at the rate per annum as set forth above; and

FURTHER RESOLVED that the President of the Board of Education and a member of the Board of Education are hereby authorized to execute said bonds on behalf of this School District and to deliver said bonds to said purchaser when they shall have been executed, and upon receiving the purchase price, including accrued interest, if any, to be paid for said bonds.

LOCAL SCHOOL DISTRICT BOND ANTICIPATION NOTE
SIGNATURE NO LITIGATION AND DELIVERY CERTIFICATE

We, the undersigned, acting as officers of the school district of the State of Delaware, known as _____ School District, (hereinafter called "School District" DO HEREBY SEVERALLY CERTIFY, as follows:

1. On or prior to the date of this certificate we have signed the following obligation of said School District: $_____ Bond Anticipation Note issued pursuant to 14 De. C., Ch 21 and 29 De. C., Ch 75, and resolutions of the Board of Education of said School District adopted on _____. The note is dated _____, to mature on _____, and bears interest of _____% per annum. Both principal and interest of the note are payable at maturity.

2. At the time we signed said obligation we were, and we now are, the duly chosen, qualified and acting officers of said School District, as indicated below. The seal affixed to or impressed upon this certificate is the corporate seal which has been heretofore adopted for and is now in use by said School District and said seal has been affixed to or impressed upon each obligation.

3. Neither the proceedings authorizing said obligations, hereinbefore described, nor the authority to execute and issue said obligation on behalf of said School District hereto fore granted to the undersigned by said proceedings, have been revoked or rescinded or repealed or modified or amended in any respect.

4. No litigation is now pending or threatened to restrain or enjoin the issuance or delivery of said obligation or in any manner questioning the authority of said School District to issue or the issuance or validity of said obligation or the constitutionality of any statute or the validity of any proceedings authorizing said obligation, or the levy or collection of taxes to pay said obligation. Neither the corporate existence or boundaries of said School District, nor the title of any of said officers to their respective offices, is

being contested. Reference is made to litigation recently instituted in certain states such as Serrano v. Priest, 96 Cal. Rep. 601, challenging the constitutionality of the present system of levying taxes and applying funds for public school purposes. Said School District is not a party in any such litigation.

IN WITNESS WHEREOF, we have hereunto set our hands and the seal herein before described on this _____ day of _____.

OFFICE	SIGNATURE
President, Board of Education	_____
Member, Board of Education	_____

I HEREBY CERTIFY that I know the persons whose signatures appear and am familiar with their signatures, and that I have examined their signatures on this certificate and that such signatures are genuine and that said persons hold the offices of said public corporation described in said certificate as stated in said certificate.

_____
Signature

_____
Title

_____
School District

_____
Notary Public

My Commission expires _____

DEBT#44,p5-6

No.

UNITED STATES OF AMERICA
THE STATE OF DELAWARE
_____ SCHOOL DISTRICT

$_____

BOND ANTICIPATION NOTE

The _____ SCHOOL DISTRICT, located in _____County of the State of Delaware, (hereinafter referred to as "School District"), hereby acknowledges itself indebted and for value received hereby promises to pay to the State of Delaware, the sum of _____ DOLLARS ($)
on _____, together with interest thereon from the date of this note, until it matures at the rate of _____% per annum, payable at maturity. The School District hereby reserves the right to redeem the note at par plus accrued interest prior to maturity in accordance with the provisions of 29 Del. C., ss 7508 (c). Both Principal and Interest on this note will be paid at Mellon Bank Delaware in the County of which the district is located in any coin or currency of the United States of America which, at the time of payment, is legal tender for the payment of public and private debts.

This note is one of an issue, the aggregate principal amount of which is $_____. It is pursuant to 14 Del. C., Ch. 21 and 29 Del. C., Ch. 75, to finance a portion of the school construction program of the district, as approved by the State Board of Education on _____. Serial Bonds for such purpose have been approved by the majority of the votes cast at a school district election duly called and held on _____.

The faith and credit of the School District are hereby irrevocably pledged to the payment of the principal of and interest on this note according o its terms.

It is hereby certified and recited that all conditions, acts and things required by the Constitution and statutes of the State of Delaware to exist, to have happened and to have been performed precedent to and in the issuance of this note, exist, have happened and have been performed, and that the issuance of notes of which this is one, together with all other indebtedness of the School District, is within every debt and other limit prescribed by the Constitution and laws of such State.

IN WITNESS WHEREOF, the School District has caused this note to be signed by the President of its Board of Education and one other member of such Board of Education and the seal of the School District to be hereunto affixed and its note to be dated _____.

(SEAL)

_____
President, Board of Education

_____
Member, Board of Education

DEBT#44,p7

CERTIFICATE OF DEBT STATEMENT

STATE OF DELAWARE: SS

I, _____, Superintendent of Schools of the _____ School District, a school district of the State of Delaware, located in the County of _____ and ex officio Executive Secretary of the Board of Education of said School District, DO HEREBY CERTIFY AS FOLLOWS:

1. Said School District has levied annually since _____, additional taxes for school purposes upon the assessed value of property in said School District, as determined and fixed for County taxation purposes, in accordance with either Chapter 19 of Title 14 of the Delaware Code or other laws of the State of Delaware.

2. The assessed value of the property in said School District, as shown by the assessment list last prepared pursuant to said Chapter, being the assessment list prepared for the levy of taxes for the current school year, is $_____.

3. The principal amount of all outstanding bonds of said School District and including bonds of component former school districts which became the obligations of said School District on _____, and current outstanding Bond Anticipation Notes is _____. Said School District has no bonded debt other than the bonded debt evidenced by said outstanding bonds and notes. The total authorized bonded indebtedness of said School District does not exceed ten percent of the assessed value of the real property in the district.

IN WITNESS WHEREOF, I have hereunto set my hand and have hereunto affixed the seal of said School District, this ____ day of _____, 19____.

SEAL

_____
SIGNATURE

DEBT#44,p8

1. Certificate of Membership of the Board of Education

2. Certified copy of _____ Board of Education minutes which included the resolution calling for a special election to authorize the sale of bonds.

3. Affidavit of posting notices signed by the District's Supervisor of Building and Grounds, certifying that the notice requirements of 14 Del. C 2122 have been complied with and a copy of the notice posted in accordance with 2122 (b) (1)

4. A statement from the Executive Secretary of the Board of Education certifying that the notice requirements of 14 Del. C., 2122 have been complied with.

5. Affidavits of publication showing compliance with 14 Del. C., (b) (2).

6. A copy of the ballot used in the election.

7. A copy of the letter from the School District to the State Board of Education stating the results of the special election.

8. Affidavits of publication evidencing the State Board of Education's Compliance with the Notice Requirements of 14 Del. C., 2123.

9. A copy of the State Board of Education's certification of the election results

10. A certified copy of the _____ Board of Education minutes with the resolution authorizing the issuance of the aforesaid Bond/Note to the State.

11. Certification from the School District that the Bond/Note, together with the total amount of bonds theretofor issued, does not exceed the total authorized bonded indebtedness of the District and does not exceed ten percent of the assessed value of the real property in the District.

12. A copy of the Certificate of Necessity issued by the State Board of Education pursuant to 29 Del. C. 7510.

13. Signature, no litigation, and delivery certificate.

14. Bond/Note interest per annum, dated _____.

A. OPINIONS OF THE ATTORNEY GENERAL REGARDING SCHOOL CONSTRUCTION

The following synopses of attorney general's opinions regarding school construction are presented as information.

Where the answers to questions are clear cut, only the answers are given. If the answer is conditional or not clear cut, the answer and discussion are presented.

Only opinions which have a general bearing are presented. Opinions which are relevant for only a single circumstance or conditions are not presented.

1. **"Current Expense" Tax Receipts - §1918 (7/31/63)**

   Question: May a school district apply money from "current expense" funds to meet necessary bond payments:

   Answer: "Current expense" tax receipts may not be used for debt service. (Opn. Of Attn. Gen. 1963-64, page 73).

2. **Vandalism - §3701 (4/28/67)**

   Question: Is vandalism in a public school building "other casualty" within the meaning of Title 14,

3. **Purchasing of Textbooks - §7501(4) (5/22/67)**

   Question: Are "textbooks" educational supplies within the meaning of this term in Section 7501, Title 29, and Section 10 in the 1966 and 1967 Capital Improvement Acts, thus making them ineligible for purchase with such construction funds.

   Answer: Textbooks are permissible purchases from school construction funds until the legislature chooses to prohibit such textbook purchases by enactment of specific legislatiion to accomplish such an end. (Opn. Of Atty. Gen. 1967 page 84) DE Code Rev. 1974).

4. **School Districts Buying Materials or Labor Without Bidding (§6903 11/19/69)**

   Question: Under the terms of the bid form, may a second school district buy items without bidding them by using the price received by the first school district assuming the vendor is satisfied to follow this procedure?

   Answer: A second school district is not permitted to buy materials or labor under the bid received by the first school district, even if such provision is included in the bid form used by the first school district. (Opn. Of Atty. Gen. 1969 page 100)

5. **Employment of Construction Manager - Title 29, Chapter 75, §7519, 7520 (4/12/72)**

Question: 1 - Can the school board buy its building through more than one competitive building contract?

2 Can the school board, by negotiation retain professionals to coordinate and supervise these contracts?

3 - Is it legal for the construction manager proceeding this supervisory function to provide the general construction services such as, temporary fencing, temporary toilets, night watchman, job sign and similar services?

Answer: A school district may employ a person or company to act in the capacity of construction manager who would supervise the school construction program, including the contract, if such employment does not conflict with the purpose of the bidding statutes, particularly §6912, Title 29, (Opn. Of Atty. Gen. 1972 page 58).

6. **The Selling of Real Property by a School District to Any State Agency - Title 14, Chapter 10, §1057 (5/18/72)**

Question: What compensation, if any, is a school district entitled to when the Department of Highways and Transportation acquires real property of that school district?

Answer: When a school district sells any of its real property to any state agency, the school district is entitled to retain the proceeds of the sale in the same proportion as the share of the school district in the original cost of purchase of the property; and the remainder of the proceeds of the sale must be returned to the State. The share of the proceeds of the sale retained by the school district would be deposited to the debt service account of the school district to be used only for purposes of retirement of school district bonds and interest thereon; and the share of the proceeds of the sale returned to the State would be deposited in a special account to be applied against future school construction bond requirements. (Opn. Of Atty. Gen. 1972, page 117).

7. **Awarding of Bidding Contracts - title 29, "Chap. 69, §6907 (5/18/72)**

Question: If the Board of Education of a school district solicits separates bids at the same time on two construction projects on the same site, must the Board award both contracts to the bidder submitting bids on each project that total less than the sum of the bids by any other bidder on the two projects?

Answer: When two projects are to be constructed on the same site at the same time, contracts may be awarded to the bidder whose bids on both projects total less than the sum of the bids of any other bidder submitting bids on both projects, provided the overall cost of the two projects, including supervision and administrative overhead costs, is no higher than the over

all cost of the two projects would be if the contract on one project were awarded to the low bidder on that project and the contract on the other project were awarded to the low bidder on that project. (Opn. Of Atty. Gen. 1972, page 120).

8. **Disposing of State-Owned Material, Supplies, etc. or Trading In of Equipemnt - Title 29, §6102 (c) and §7002 (d) (10/23/73)**

Question: 1 - Is it legal for State agencies to "trade-in" any equipment, supplies or material purchased in whole or in part with State appropriated funds when purchasing replacement material?

2 - Do State agencies, other than the Department of Administrative Services, have the general authority to sell or otherwise dispose of State-owned material?

3. Considering the provisions of §7002d) and §6102(c), Title 29, together, would it be proper for the Department of Finance to credit the receipts of sales by the Department of Administrative Services to the appropriated agency's General Fund Account to be applied toward the cost of the replacement?

Answers: 1. - No. Title 29 Del. Code §7002 vests the power to dispose of State-owned equipment, materials and supplies in the Department of Administrative Services, and that Section does not authorize "trade-ins".

2. -No. Absent a specific statutory grant, only the Department of Administrative Services has such power.

3. - Yes. Title 29 Del. Code §6102(c), although very limited in its present application, does manifest a legislative intent from which the Department of Finance may infer the power to so credit such receipts. (Opn. Of Atty. Gen. 1973, page 210).

9. **Building Code Regulating School Construction - A.G. letter dated 8/27/68**

Question: Does the valid building regulations of a municipal corporation apply to school buildings constructed within the municipality as a part of the public school system of the State?

Answer: This precise question was the subject of an action in the Superior Court of the State of Delaware in the case or Corder et. al v. City of Milford. 196 A.2d 406. In that case Mr. Corder and the other members of the Board of Education of the Milford Special School District sought to avoid the building permit fee of the City of Milford. In its Opinion issued on December 5, 1963, the Superior Court upheld the City's right to collect such fee. The Opinion seems to indicate that the "local building codes (will) continue to apply to public school construction until displaced through more complete implementation by the educational authorities of

their existing statutory authority". In effect, the Court has said that the Delaware State Board of Education must adopt a detailed building code regulating school construction before the local school boards will be exempt from municipal building regulations.

10. **Question:** May a State agency waive listing of subcontractors as a technicality?

Answer: No. (Opn. Deputy Attorney General to Mr. James D. Mcnair, II, Assistant Director, Division of Historical and Cultural Affairs).

Discussion:

The statutory requirement that bidders are to submit the names of subcontractors with their bids has been held to be mandatory by Delaware courts. Haddock v. Board of Public Education in Wilmington, DE Ch., 84 A.2d 157 (1951). That case construed §3647 of the Revised Code of Delaware 1935 which was the predecessor of 29 Del. Code §6911(a). The two statutory references are practically identical in reference to the issue here.

In the Haddock case, the apparent low bidder filed a letter-supplement to its original bid endeavoring to supply the names of subcontractors either omitted or set forth in the alternative in the original bid. The agency accepted the supplementation and awarded the contract to the apparent low bidder. The Court of Chancery specifically rejected the agency's arguments that the omissions were merely technical irregularities. It said that in light of the special requirements of the statute and particularly in view of the specific provision that a bidder who does not comply with the statutory requirements he had no right to submit nor did the agency have any right to accept the supplemental information contained in the letter.

Sec. 7.3.3, this Manual, and 29 Del. Code §6904(2) regarding pre-bid meeting and setting subcontractor list.

Sec. 7.12, this Manual, and 29 Del. Code §6911 regarding bidder's statement listing subcontractors.

11. **In-State Vendor of Contractor - Title 29 Del. Code** §6907 (10/24/79)

Question: 1 - Does the phrase "in-state vendor of contractor" in 29 Del. Code §6907 (as amended by 62 Del. Laws c. 137) include only those companies which have their main operation within the State or does it include those companies which have a branch or branches in the State or all of those incorporated here?

2 - Are the decisions made by the agency pursuant to 29 Del. Code §6907 to be made only by the agency making the award or, if the work or material is bid for another state agency, may that agency enter into the decision?

Answer: 1 - The phrase "in-state vendor or contractor" in 29 Del. Code §6907 includes only those companies having both permanent business facilities and employees located within the State, but not those companies merely incorporated here.

2 - The degree of participation in decisions made pursuant to §6907 by an agency which has delegated its authority to award a contract is not controlled by any statute but may be the subject of regulations enacted by the delegating agency.

12. Architectural Accessibility Act, Application and Scope - 29 Del. Code §7302(2); I-046 (11/5/79)

The questions involved the types of construction changes covered by the Act as related to the term "alteration" and the extent to which the facility being altered must be made accessible. The opinion is quoted, in part, as follows:

...Any construction changes which impact on a significant square footage of a covered facility or involve the rearrangement of load-bearing structures so as to effect its appearance or permit a different utilization of the facility or call for a substantial expenditure of funds in relation to the total facility cost, constitute an alteration and areas immediate thereto together with at least one route leading to and from the outside or other accessible area.

...An alteration which incorporates accessibility standards must itself be accessible via routes readily available to the handicapped.

...The Board may further refine by regulation precisely which standards of accessibility will apply to an alteration and to what extent.

13. Architectural Accessibility Act - Title 29 Del. Code §7301 at seq. (5/7/81)

Questions: 1 - If the State has leased a building prior to July 13, 1979 (the effective date of the Architectural Accessibility Act), would the renewal of such a lease, which provides solely for an increase in the rental fee, be subject to the provisions of that Act?

2 - Would a building leased by the State to house administrative offices that could provide no direct client services to the public constitute a "facility" subject to the provisions of the Architectural Accessibility Act?

Answers: 1. - A facility leased by the State after the effective date of the Architectural Accessibility Act would be subject to its provisions regardless of the fact that all terms of the lease except the rental fee remain unchanged.

2. - State buildings which house administrative offices are "facilities" within the meaning of 29 Del. Code §7302(1).

SIGNATURES:

Person making the report:_____

Supervisor of School Transportation_____

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

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