

**Administrator  
and Board Member  
Guide to School  
Construction Projects**

May 1, 2018

This publication is printed and issued by the Oklahoma Board of Governors of the Licensed Architects, Landscape Architects and Registered Interior Designers as authorized by 59 O.S., Section 46.19 et seq. Copies have been deposited with the Publications Clearinghouse of the Oklahoma Department of Libraries. The cost is \$ 515.00 for 100 copies. Printed December 29, 2017.

**MOTTO  
for  
CONSTRUCTION  
PROJECTS**

The bitterness of poor quality remains long after the  
sweetness of low price is long forgotten.

**This guide is intended to apply to all school buildings whether it is a brick and mortar or metal building, as well as other projects. It is a reference guide and shall not be considered as a definitive interpretation of the Oklahoma statutes. Users of the document are strongly encouraged to consult with an attorney for interpretation of the statutes.**

**ADMINISTRATOR AND BOARD MEMBER  
GUIDE TO SCHOOL  
CONSTRUCTION  
PROJECTS**

**Prepared by:**

**Oklahoma State Board of Education**

## TABLE OF CONTENTS

Introduction	iii
Basics	
Building Permit Processes in School Construction	1
Sequence of Events in a School Building Project	2
Funding Capital Improvements	6
Public Competitive Bidding	9
Construction by Force Account (Revised 02-2011)	11
Design and Construction	
Architectural Services	13
The Construction Process (Revised 02-2011)	16
Design Considerations	
Building Codes and Fire Safety	19
Accessibility	22
Energy	24
Outside the Building – School Grounds	28
Publications and Links	32
Appendix A – Plan Review Guidelines	33
Appendix B – Forms	39

## INTRODUCTION

This 2017 version is the first revision of the 2010 printed copy of *An Administrator's Guide to School Construction Projects*. It was originally adapted from *The ABCs of Building a School* which was last printed in October 2004. Its purpose is to aid school administrators through the process of school construction projects. The construction process is inherently complex. This guide will clarify the process by describing the progression from planning through the completed project. An organized and well informed administrator will facilitate the building process and aid in accomplishing the ultimate goal of a successful building project.

This is not a legal document. For questions and answers to precise legal issues, contact a licensed attorney.

## OKLAHOMA BUILDING PERMIT PROCESSES IN SCHOOL CONSTRUCTION

### Plan Review

After a project has been reviewed by the local and/or State Fire Marshal, a building permit will be issued to the school district's Superintendent and Architect noting any comments for the project.

The Oklahoma State Fire Marshal's Office requires two (2) printed sets of modified plans with architectural plans drawn to the scale of 1/8" equal one (1) foot) and site plans using one (1) inch equal to 20, 30 or 40 feet to show sufficient detail and must be submitted to the Oklahoma State Fire Marshal's office in addition to a disk with everything on it. This information is necessary along with a completed permit application with a cover sheet indicating the project name, location and owner(s) of the project along with the scope of work. Refer to the "Plan Review Guidelines" in Appendix A (page 29) for more information.

### Assistance

The Board of Architects is available to assist school districts, their architects and engineers. Whether just getting started on a project or working through the construction documents, the Board is available to answer questions and provide any assistance possible and maybe be reached at 405-949-2383 or [www.ok.gov/architects](http://www.ok.gov/architects).

### Statistics

School Year	Number of Plan Reviews	Estimated Cost*
2000-2001	237	\$209,360,000
2001-2002	261	\$237,983,000
2002-2003	198	\$131,307,000
2003-2004	251	\$195,725,000
2004-2005	262	\$268,805,000
2005-2006	275	\$252,990,000
2006-2007	176	\$255,796,000
2007-2008	196	\$266,194,000
2008-2009	198	\$302,502,000
2009-2010	177	\$326,763,406

\* Based on information provided to SDE

## SEQUENCE OF EVENTS IN A SCHOOL BUILDING PROJECT

### Defining Building Projects

#### 1. Identify Immediate and Long-Term Needs

Each need should be ranked and listed with a reason it is important. This list will be ongoing and should be updated on a regular basis. Over time, items will be added, removed, or shifted up or down the list.

#### 2. Develop Goals or Objectives

For the most important needs, develop goals or objectives to address each need.

#### 3. Develop a Plan

The plan will establish how the goals and objectives will be achieved. Each goal or objective should have its own step-by-step outline on how it will be achieved. It is important to be realistic, but also, open minded and to consider all possible ways as well as alternative plans of action to achieve the goal or objective.

#### 4. Select a Project(s) and Develop a Building Program

For each project to be pursued, expand on the basic outline by thoroughly describing the project. The building program should define the scope of the project. Important things to note are the types of improvements proposed, the number and types of students and faculty who will be served, the number and types of spaces that will be created, any special equipment that will be needed, and specific objectives that should be achieved. Most importantly, the benefits of the project should be addressed. Finally, a budget for the project should be established.

#### 5. Propose the Project Building Program to the School Board

Add the proposed project(s) to the school board meeting agenda. Present the project and provide any additional information and/or documentation to support the project. School Board discussion and action taken, should be recorded in the official minutes.

### Proceeding with Building Projects

#### 6. Define Project Scope, Budget, and Timeline

Using comments received at the school board meeting, finalize the project scope and budget. Include adequate allowances for cost overruns, as a number of unforeseen contingencies may arise during construction. Determine an ideal timeline for design and construction of the project. Decide if the construction delivery will be by general contractor or a construction manager.

#### 7. Determine Sources of Funding

Establish if the project will be funded by building funds, general funds, grants, bonds, etc. Know the law before authorizing expenditures from these sources. There are many statutory restrictions on the use of each of the funds listed.

#### 8. Select an Architect and Construction Manager (if applicable)

If an architect or construction manager (if applicable) is not already engaged in the planning process, now is the time to begin their involvement.



## **Proceeding with Bond Issues (if required)**

### **9. Select a Financial Consultant**

If the project costs justify or require a bond issue, you may wish to select a consultant to assist in the preparation and sale of the public bonds. Refer to the “Funding Capital Improvements Section” (pages 6 through 8) for more information.

### **10. Contact the County Election Board**

After the final school board approval, notify the County Election Board that a bond vote is required. Work closely with the bonding consultant and ensure that bonds are voted in compliance with the law.

### **11. Promote the Bond Issue**

Bond issues should be publicized to the electorate in a positive way.

### **12. Sell the Bonds**

If the bond issue passes, work with a financial consultant and school board to arrange a date to sell the bonds. Ensure the date is after the mandated period of contestability.

### **13. Invest Bond Funds**

Immediately invest all bond funds, because any delay will cost the school district money.

## **Designing the Project**

### **14. Notify the Architect to Proceed**

It is at the school board’s discretion when to start the architect on the project. If using funds on hand, the architect can begin immediately working through the design phases as described in the contract. If using funds from bonds, the issue is less clear. It is not uncommon for schools to have the architect proceed with preliminary and/or final construction documents before bond issue approval. Though this may save time, the inherent risk is that a school district will be responsible for paying the architect for their services whether or not the bond issue passes. Often, architects on school projects will proceed with the work with an understanding that if the bond issue fails, the architect will be reimbursed for the work performed to date. This should be specifically noted in the contract. All payments to the architect shall be made in accordance with the contract. Payment requests should contain a notarized affidavit, as required by law, when the amount is \$1,000 or more. Refer to the “Architectural Services Section” (pages 13-15) for more information.

### **15. Submit Construction Documents to Regulating Agencies**

After final school board approval, ensure that the final Construction Documents are submitted to the required regulating agencies including the local building department, the local and/or State Fire Marshal and the Health Department (if required).

### **16. Receive Approval and/or Permits from Regulating Agencies**

Before commencing construction, ensure that approval and/or permits from all required regulating agencies have been obtained.

## **Bidding the Project by the Public Bidding Act**

### **17. Advertise the Bid of the Project**

After final school board approval, notify all prospective bidders and the public as required by law. This includes notifying all known prospective bidders by mail, advertising in a general circulation newspaper, and notifying trade or construction publications. Refer to the School Laws of Oklahoma, Section 956, for specific requirements.

### **18. Provide Bid Documents for Review**

By law, at least one complete set of bidding documents shall be on file in the main office of the awarding public agency at least twenty (20) days prior to the date set for opening bids.

### **19. Open Bids**

At the date, time, and location in the advertisement to bid, a formal meeting of the school board shall be held to open bids. Only sealed bids should be accepted. Bids should be checked carefully for errors or omissions and should contain the required bid bonds, affidavits, etc., as required by the specifications and the law. Bids should be read aloud and witnessed by a member of the school board. The bid opening should be as free of irregularities as possible. Remember the livelihood of the contractors is at stake and they can be extremely sensitive to decisions not publicized in the bid documents. Negotiation with the low bidder is not allowed, even when the low bid exceeds the funds available. Re-bidding or the declaration of an emergency is required in such cases.

### **20. Award the Contract**

The school board has thirty (30) days to consider the bids and award the contract. The award should not be made until funds are available. Refer to School Laws of Oklahoma, Section 963, for extensions to this time.

### **21. Execute the Contract**

The contract must be executed within sixty (60) days. Often the specification will stipulate a lesser number, such as ten (10) days.

## **Commencing Construction**

### **22. Notify the Contractor to Proceed**

After the contract has been executed and all permits have been obtained, notify the contractor to proceed with the project. Make payments to the contractor according to the contract. Do not prepay for anything. The payment request should contain a notarized affidavit as required by law. "Refer to the Construction Process Section" (pages 16 through 18) for more information.

### **23. Security at the Construction Site**

Ensure that adequate security precautions exist at all areas of construction. Children are naturally curious around construction work and accidents are possible.

### **24. Obtain Certificate of Substantial Completion**

Near the end of the construction, the architect will issue a certificate of substantial completion. Because of legal issues, occupancy should not occur until this certificate has been issued.

**25. Contact Insurance Agent**

Prior to occupancy, contact the school's insurance agent to arrange for the coverage of all improvements.

**26. Obtain Certificate of Occupancy**

When the project is fit for occupancy, the local and/or State Fire Marshal will issue a certificate of occupancy, (CO).

**27. Obtain Releases from Contractor**

When the school board is satisfied that the work is complete, obtain a release from the contractor against any liens or claims for payment from the contractor, subcontractor, and/or material suppliers. You can request that lien releases for work performed can be requested and/or provided with each application for payment. The retainage of the contract amount is due at completion. Retainage of the contractor's money after acceptance requires an interest payment of 0.75% per month.

**28. Obtain all Project Documentation**

Receive all project documentation (including the record drawings, operating manuals, guaranties, warranties, etc.) from the contractor or the architect. These documents are invaluable and should be stored in a safe place where they will not be damaged or lost.

## **FUNDING CAPITAL IMPROVEMENTS**

### **General Obligation Bonds**

In order to make capital improvements, a school district is allowed to borrow money utilizing general obligation bonds. However, the indebtedness of a school district cannot exceed ten percent, including existing indebtedness, of the assessed valuation of the taxable property within the district. The bonds must be authorized in an election voted on by the electorate of the district. Sixty percent (60%) of the votes must be affirmative. These bonds are payable from ad valorem taxes levied against all taxable property within the district, excluding homestead exemptions, without limitation as to rate or amount. Interest is payable as it falls due and a sinking fund is created for repayment of the principal.

School districts can issue general obligation bonds for the following purposes:

- a. Purchase of land.
- b. Construction of new buildings.
- c. Additions to existing buildings.
- d. Renovations to existing buildings.
- e. Purchase of school furniture and fixtures.
- f. Purchase of school buses.

### **Bond Issue Process**

#### **1. Election Called**

A formal resolution calling for an election is issued by the local board of education. The resolution shall include the date, place, and purpose of the election. If the bond issue includes the purchase of transportation, a separate proposition is required.

#### **2. Election Set**

The resolution is delivered by the board's clerk or designated representative to the county election board at least 60 days prior to the election. Election days are established by the county election board and are held on Tuesdays. Contact the local county election board for exact election dates.

#### **3. Advertise Election**

The resolution must be published in a newspaper of general circulation in the district at least ten (10) days prior to the election.

#### **4. Election Day**

The election will be conducted by the county election board. When a school district is in two counties, the election board of the county in which the district's office is located will be in charge and coordinate with the other county election board. Polling places are open from 7 a.m. to 7 p.m. Any registered voter in the district is eligible to vote.

#### **5. School Board Meets to Set Date of Bond Sale**

If the election passes, the school board will meet to set the date for sale of the bonds.

#### **6. Advertise Bond Sale**

Once approved, notice of the sale of the bonds must be published once a week for two consecutive weeks in a legally qualified newspaper published in the district. The sale shall be no less than ten (10) days after the first publication.

7. Bond Sale

Bidding is at the discretion of the governing body and may be sealed, facsimile, electronic, or other bidding method. The governing body has the right to reject all bids and re-advertise the bonds for sale.

8. Transcript Period After the sale, the bonds must be approved by the Oklahoma State Attorney General.

9. Non-Litigation Period

Once approved by the Oklahoma State Attorney General, a 30-day protest period begins. Any suit contesting the legality of the bond issue must be initiated in district court within this time period.

10. Final Document Preparation and Signing, Settlement and Delivery

**Capital Expenditures through the General Fund**

**\$50,000 from the General Fund**

1. The district must be voting the maximum five building fund mills.
2. A bond issue has been rejected on that question within the current school year; or the district has voted indebtedness at any time within the preceding three school years through the issuance of bonds or through approval by voters of issuance of new bonds for more than 85% of the maximum allowable.
3. The funds must be expended within the current fiscal year.

**5% of the Total Yearly Revenue to the General Fund**

1. The district's total assessed property valuation per average daily attendance is less than 60% of the state average total assessed property valuation per average daily attendance.
2. For each year general fund revenue is used for capital expenditures, the district must be voting the five-mill building fund levy.
3. The district must have voted indebtedness through the issuance of new bonds for at least 85% within the last three years of the maximum allowable.
4. The funds may not be used for capital expenditures for more than five (5) consecutive years.
5. The funds may only be used for remodeling or constructing classroom facilities and ancillary facilities to those classrooms, as necessary.

**The Financial Advisor**

In connection with the proposal and issuance of general obligation bonds for school districts, the financial advisor performs services according to an agreement reached with the owner. This contract is a professional contract and is not required to be bid. Typical services include:

Prior to the Call for Election:

1. Prepares a financial analysis for the school district, including a survey of financial resources and borrowing capacity.
2. Analyzes existing debt and tax structure and devises a financing program to fund the proposed maturities, estimated interest rate, and cost on the proposed bonds.
3. Prepares and furnishes publicity material in the form of news articles, brochures, and other promotional material.
4. Attends public meetings to explain the financing program to interested individuals.
5. Provides services necessary for proper calling of the election.

After Voter Approval:

6. Advises the school's board of education on market conditions and economic data expected for the sale of the bonds to set a favorable date for the sale.
7. Prepares an Official Notice of Sale, the Prospectus, and bid documents.
8. Submits financial and economic data to the national rating services to obtain a favorable rating on the bonds.
9. Attends the sale of bonds and advises the school's board of education regarding acceptance or rejection of the bids.
10. Provides services necessary to expedite preparation of final transcript and to achieve delivery of the bonds approved by the Oklahoma State Attorney General.

## **PUBLIC COMPETITIVE BIDDING**

The Public Competitive Bidding Act of 1974, Title 61 O.S. § 101 thru § 138, included in the School Laws of Oklahoma, Chapter 9, Article 5, is a critical component of any school building project. School districts must comply fully with these laws which become effective when construction documents are released for bidding. However, in order to ensure compliance with the laws, it is important to have a thorough understanding of the requirements long before the project is in the bidding phase.

The following list outlines the key requirements of the Public Competitive Bidding Act of 1974. This list is not to be substituted for a thorough reading and understanding of the laws. It should be noted that nothing in this act shall prevent a public agency from completing the work on a force account basis and that certain provisions will not apply if an emergency is declared.

The school district as the awarding agency shall:

1. Accept bids and contracts as required for all public construction projects as follows:
  - a. Open competitive bidding by sealed bids for projects greater than \$50,000.
  - b. Receipt of written bids for projects less than \$50,000.
  - c. Negotiate with a qualified contractor for projects less than \$25,000 for minor maintenance and repair.
  - d. Receipt of written bids for projects greater than or equal to \$25,000, but less than \$50,000 for minor maintenance and repair.
2. Exclude sales tax from projects by designing the contractor as an agent of the district.
3. Advertise bidding and describe the project.
4. Provide a copy of the bidding documents at the agency.
5. Provide bidding documents, personally or via an agent, to bidders.
6. Require a bid guaranty (bid bond) for five percent (5%) of the bid price.
7. Require a Business Relationship Affidavit from all bidders.
8. Require a Non-Collusion Affidavit from all bidders.
9. Return all bids received ninety-six (96) hours prior to bid opening or bids received late.
10. Hold a public bid opening at the time and place described in the advertisement to bid.
11. Award the contract to the lowest responsible bidder within thirty (30) days of the bid opening.
12. Maintain a file, that is public record, of all bids for the required period of time.
13. Execute a contract with the successful bidder within sixty (60) days.
14. Receive from the contractor, performance, statutory and defect bonds for 100% of the contract price.
15. Require and receive from the contractor proof of required insurance.
16. Retain 10% of all payments until 50% completion when retainage can be reduced to 5%.

Have the ability to prequalify prospective bidders, award the contract to other than the lowest bidder, and reject any bids.

17. Adhere to change order requirements.
18. Ensure that applications for payment are certified and project is inspected prior to making payments.
19. **No split contracts to avoid competitive bidding laws.**



## CONSTRUCTION BY FORCE ACCOUNT

### Definition of Force Account

Force account is addressed in Attorney General Opinion 13-2010, October 22, 2010:

*It is therefore, the official Opinion of the Attorney General that:*

*1. When undertaking a construction project, a school district may complete as much of the work as it chooses on a force account basis. The term “force account” means “the erecting of a building or the making of an improvement on district property by the use of the district’s own employees, purchasing its own materials and leasing the necessary equipment all under the supervision of the district.” See 61 O.S.2001, § 103.4; A.G. Opin. 80-108 at 190. The remainder of the project may be bid as a public construction contract under the applicable provisions of the Public Competitive Bidding Act of 1974. See 61 O.S.2001 & Supp.2009, §§ 100-138.*

### Construction by Force Account

To construct a school project on a pure force account method would be extremely difficult for any school district. To build by force, a school district would have to employ workers for all trades required for the project. Instead, what typically occurs is a hybrid of force account construction and construction management/general contracting. In this hybrid, the school district uses employees for certain scopes of work while the other scopes are contracted under the applicable provisions of the Public Competitive Bidding Act of 1974. The remaining scopes of work not constructed by force account should be bid to either a general contractor or utilize a construction manager. If construction management is selected, specific requirements must be met. Refer to “The Construction Process” (pages 16-18) for more information.

In force account, as the school district manages the scopes of work completed by employees, it is assuming the role as general contractor and is accepting all the associated risk and responsibility. It is important to remember that construction projects can be time consuming and complex. School administrators in charge of force account construction projects must be prepared to devote a substantial amount of time and understanding to the project. This includes time devoted to the schedule, construction means and methods, project details, financial information, and field questions and problems. An administrator may or may not be familiar with all the facets of construction; however, the administrator in charge will be accountable for the project. If, after careful deliberation, a school district decides to utilize force account, it should know and follow the law.

Building by force does not exempt the school district from following any laws. Permits must be obtained from the local jurisdiction as well as the local or State Fire Marshal. Construction documents must be submitted with the permitting phase and are required to comply with the Public Competitive Bidding Act of 1974 without exception. In addition, when work, such as electrical, requires a license, the employee must hold a valid Oklahoma license to perform that work.

In force account, the school district is accepting the responsibility and the risk of construction. The school district shall ensure that:

1. Adequate insurance is provided to cover liability and building protection.
2. The construction site is secure.
3. Work is completed according to the construction documents.
4. Cost overruns and contingencies are included in the budget.
5. Unforeseen delays are included in the schedule.

### **Common Myths Associated with Force Account**

#### **Myth:**

When a school district builds by force account, an architect is not required.

#### **Fact:**

Regardless of the construction delivery method utilized, the Oklahoma State Architectural and Registered Interior Designers Act must be followed. Refer to “Architectural Services” (page 13 for more information).

#### **Myth:**

When a school district builds by force account, the Public Competitive Bidding Act of 1974 does not apply.

#### **Fact:**

Regardless of the construction delivery method utilized, the Public Competitive Bidding Act of 1974 always applies to school districts. If the entire project cannot be completed with district employees, the remainder should be contracted out as a public construction contract under the applicable provisions of the Public Competitive Bidding Act of 1974.

#### **Myth:**

When a district has construction work that cannot be completed by their employees, the district can act as its own construction manager, serving as a general contractor or supervisor, by bidding out various bid packages and coordinating the efforts of multiple contractors.

#### **Fact:**

School districts are not allowed to serve as their own construction managers or utilize in-house personnel to act as the district’s construction manager. If the entire project cannot be completed with district employees, the remainder should be contracted out as a public construction contract under the applicable provisions of the Public Competitive Bidding Act of 1974.

## **DESIGN AND CONSTRUCTION ARCHITECTURAL SERVICES**

### **When does a project require an Architect?**

The State Architectural Act dictates when an Architect is required for a project. School projects typically fall into two Code Use Groups--Education and Assembly. Requirements for those two occupancies are shown below. For other occupancy requirements, consult the *Oklahoma State Architectural and Registered Interior Designers Act. (O.S. 59, Section 46.21b)*

An Architect is required for a school project that meets any of the following as defined by the 2015 International Building Code:

1. The Code Use Group is Education-E with 50 or more occupants or more than two (2) stories in height.
2. The building addition, renovation, or alteration affects the primary structural, mechanical, or electrical systems, life safety systems, or exit passageways.
3. The Code Use Group is Assembly (A-1), (A-4), or (A-5). Assembly (A-1) includes areas for production or viewing of performing arts, typically with fixed seating. Assembly (A-4) includes areas for viewing indoor sporting events and activities with spectator seating. Assembly (A-5) includes areas for participation in or viewing outdoor activities.
4. The Code Use Group is Education (E) or Assembly (A-2) or (A-3) with 50 or more occupants or more than two (2) stories in height. Education (E) occupancies include any areas that students have access to on school grounds. Assembly (A-2) includes areas for food and drink consumption. Assembly (A-3) includes areas for worship, recreation, amusement or other assembly areas not identified such as indoor sporting areas without spectator seating, libraries, and galleries.

### **Selecting an Architect**

Selecting an architect is a critical step in the construction process and can be a very difficult task. Careful study of the candidates is essential. Generally, the architect should be brought on as early as possible because they can provide beneficial services even before a project is ready to begin.

Unless a good relationship already exists with an architect that is experienced and capable of the proposed project, an owner should look at multiple firms. It is typically recommended to interview three to five firms - enough to get a perspective, but not too many to overwhelm. The interview process allows you to understand each firm and their approach to the project as well as the personal connection you may feel.

Finding an architect can be difficult, especially in rural areas. Personal recommendations from other school administrators in your area at both small and large schools are vital. Another great source is identifying the architect of buildings and projects that catch your eye. Both the American Institute of Architects and the Oklahoma Board of Architects allow you to search for architects on their Web sites. Please call the Board of Architects office at 405-949-2383 and ask if your architect is current and active and whether or not disciplinary actions have been taken or are pending. This is critical information for you to be able to make wise selections.

### **Interviewing the Architect**

Before the interviews, establish the funds available, the scope of the project, and the duties expected of the architect. Schedule separate interviews with each prospective firm allowing

sufficient time to enable each firm to adequately present its capabilities. During the interview, establish experience in the type and size as well as strengths and weaknesses of each firm as they apply to the particular project. Determine what services are available and which will be provided as part of the fee. Establish how long it will take each firm to do the work. Also, important to note is the individual in charge of the project. Often the person or persons representing the firm at interviews will not be the individual responsible for the day-to-day activity of the project. However, the qualifications of this person are important to establish. Finally, obtain a list of former clients. Firms should be forthcoming on all of this information. Evasiveness should be a cause of concern for the school board. After the interview, contact each firm's references, questioning performance, communication, and their recommendation. Evaluate the firms carefully and make a decision based on references, qualifications, and compatibility. It is recommended that the fee not govern the selection of a firm. Generally speaking, architects' fees are fairly uniform, and rarely are architects able to reduce fees without reducing services. After selecting a firm, it is a common courtesy to notify all unsuccessful firms that were interviewed.

### **Contracting with the Architect**

After the architect is awarded the project, a contract should be drafted. Often the architect will provide the owner with a draft of the contract. A good point to start is with the current edition of the appropriate document from the American Institute of Architects (AIA). These documents are standard agreements that demonstrate fair and balanced consideration to all parties, address emerging issues within design and construction, and are reviewed and updated to reflect current industry practice and changes in law.

It is important that the owner review the contract carefully to understand what services are being provided and the fee associated with those services. Also important is what is not included in the fee and is the financial responsibility of the owner. The contract will indicate these items which include surveys, geotechnical reports (soils testing) and other studies that may be required, as well as reimbursable expenses for reproduction and travel. It is also important to understand what services constitute an "additional service" of the architect that will require payment above the basic fee. Finally, an attorney should review the contract prior to signing.

### **Typical Architectural Services**

The services of the architect are defined in the contract. Generally, these services are divided into five distinct phases: schematic design (SD), design development (DD), construction documents (CDs), bidding or negotiation and construction administration (CA). If a project is relatively small in size, the phases may be compressed. Typical services provided by the architect are listed below. However, these and other services not mentioned are dependent upon the contract between the owner and architect. Careful review of the contract and consultation with an attorney is recommended prior to entering into an agreement.

#### **Design Phase**

At the beginning of the design phase, the architect will evaluate the scope of work, budget, and schedule as well as review laws, codes, and regulations applicable to the project. Once the architect and owner have reached an understanding on the project requirements, the architect will develop a preliminary design. After the preliminary design is approved, the architect will prepare schematic design documents.

## **Schematic Design**

Schematic design documents include basic site and floor plans, elevations and sections, note construction materials and primary building systems. Sometimes architects will include sketches or digital models in the schematic design package. An estimate of the cost of work is also provided. When the schematic design is approved, work on the design development documents begins.

## **Design Development**

Design development documents describe the project in more depth with plans, elevations, section, and details for the architectural and engineering work. Specifications are also developed which identify the materials and systems. The cost of work is updated. After owner approval of these documents, the architect begins on the construction documents.

## **Construction Documents**

Construction documents are the final drawings and specifications that are used to build and construct the project. The drawings include detailed information provided in plans, elevations, sections, details, schedules, and notes. The specifications fully describe all requirements of the bidding and construction, and identify and note materials and products to be utilized in the project. The architect coordinates all work of their consultants as well as the work of the owner's consultants. The final set of drawings is compiled with the drawings from each discipline, and the project manual is assembled which includes the specification, bidding information, and other project-related information. The final estimate of the cost of work is provided to the owner. Upon approval, the construction documents are filed with regulating agencies and released for bidding.

## **Bidding**

During bidding, the architect assists the owner in obtaining competitive bids. The architect distributes bid documents, conducts pre-bid conferences as necessary, responds to questions, organizes and conducts the bid opening, aids in determining the successful bid, and prepares the construction contracts.

## **Construction Administration**

During construction administration the architect serves as the owner's representative. The services provided include interpreting the construction documents, reviewing submittals, visiting the site to observe the work, certifying applications for payment, preparing change orders and rejecting non-conforming work. The architect will determine the date of substantial completion and issue the certificate of substantial completion.

## **THE CONSTRUCTION PROCESS**

A school district can utilize one of several project delivery methods for construction. In each instance the district contracts with a contractor to perform the “work,” which is defined as the construction and services required by the contract documents to fulfill the contractor’s obligations. The work includes labor, materials, equipment, and services that are utilized to construct the project. For school projects the district will contract with a general contractor, a construction manager or, in some instances, will build using force account.

### **Project Delivery Methods**

#### **Design-Bid-Build (General Contractor)**

In traditional design-bid-build projects, the project is bid by a general contractor, often referred to as the GC. The contractor who is the successful bidder will contract with the owner to perform the work in accordance with the construction documents produced by the architect. To formulate their bids, GCs assemble bids for each part of the project from subcontractors, or subs. Each subcontractor has a direct contract with the GC to perform a portion of the work. Owners will contract for a fixed price, or stipulated sum. All bidding shall comply with the Public Competitive Bidding Act of 1974.

#### **Construction Manager (CM) and Construction Manager At-Risk (CMA)**

In construction management projects the owner contracts with a construction manager (CM). During design, the CM acts as an advisor to the owner, providing assistance on schedule, budget, value engineering, construction materials and methods, and preparing and coordinating the bid packages. During construction the CM assumes the role as the GC, soliciting bids from and contracting directly with subcontractors.

In agency construction management, the CM provides services without taking on a financial risk for the execution of the actual construction. In construction management at-risk projects, the construction manager at-risk (CMA) takes on the financial obligation to carry out construction under a specified cost agreement. The selection of a CM or CMA is a professional contract and is not required to be bid. However, all bids solicited by the CM or CMA are required to comply with the Public Competitive Bidding Act of 1974.

School districts are permitted to use construction management as a construction delivery method, but specific requirements must be met. First, unless the project is in response to a natural disaster or other emergency situation, construction management may only be used if the project benefits the public, there is a need for cost control, and the need exists for specialized or complex construction methods due to the unique nature of the project. Second, the district must select a construction manager from the Department of Central Services’ List of Registered Construction Managers. Finally, school districts are not allowed to serve as their own construction manager.

#### **Force Account**

When a school district uses its own employees to complete construction work, it is building using force account. When building by force account, the district is essentially assuming the role as general contractor for those scopes of work. If the entire project cannot be completed with district employees, the remainder should be contracted out as a public construction contract under the applicable provisions of the Public Competitive Bidding Act of 1974. Refer to the

“Construction by Force Account Section” (pages 11-12) for more information.

### **Design-Build**

Design-Build is when both the design and construction services are in the same contract from a single legal entity (i.e., the design-builder). A firm fixed price is required in the proposal. This is a professional contract and does not require bidding. Under the Public Building Construction Act, the design-build project delivery method is available only to state agencies, not to school districts. Therefore, **school districts cannot utilize design-build in construction projects.**

### **Duties of the Contractor**

#### **During Bidding:**

1. Submit pre-qualifications to the owner, attend the pre-bid conference, and investigate the site.
2. Acquire and review the construction documents and ascertain the requirements for bidding.
3. Solicit bids from subcontractors to use in preparing the bid. Verify Plumbing, Electrical, Mechanical and Roofing subcontractors have their license number on bids.
4. Prepare and submit the bid package including the bid form, the bid bond, affidavits and any other requirements.
5. Provide required bonds and execute the contract upon award of the contract.

#### **During Construction:**

1. Study the construction documents and verify field conditions.
2. Prepare and update the construction schedule.
3. Prepare and submit a schedule of values.
4. Provide a list of subcontractors and suppliers to the architect and the owner for approval.
5. Supervise and direct the work, being solely responsible for means, methods, and coordination.
6. Provide and pay for labor, materials, equipment, utilities and other items as required to complete the work.
7. Prepare and submit for approval shop drawings, product data, and samples.
8. Keep the premises orderly and free of trash.
9. Comply with all codes and laws and call for required inspections.
10. Maintain one set of construction documents on-site to be released to the owner as “record drawings” upon completion.
11. Prepare and submit applications for payment including the claim or invoice affidavit.
12. Maintain required insurance.
13. Deliver the project to the owner clean, orderly, and complete, according to the contract documents.
14. Provide warranties, guaranties, operating manuals, and instructions to the owner.

### **Construction Schedule**

The contractor will develop a schedule for the project including a critical path that determines the minimum time necessary to complete the project. As the project progresses, the schedule will be updated to reflect the current construction process and the date for completion. During construction, the sequence of events and the work of each trade will overlap. A basic order of construction is shown below. It is important to remember that each project is different and the contractor’s schedule will be based on the requirements of that particular project.

**Construction Events:**

1. Construction Start.
2. Construction Fencing, Storm Water Prevention.
3. Clearing, Rough Grading, Soil Stabilization, Demolition.
4. Utilities, Underground, Excavation, Foundation Footings, and Slab.
5. Structural Framework, Rough Framing.
6. Roof, Exterior Doors and Windows, Exterior Materials (Masonry, Siding, EIFS, etc.).
7. Mechanical, Plumbing and Electrical Rough-In, Interior Doors and Windows, Insulation, Drywall.
8. Millwork, Finish Carpentry, Wall and Floor Finishes, Mechanical, Plumbing, and Electrical Finish-Out.
9. Furniture, Fixtures, and Equipment.
10. Final Grading, Drives, Sidewalks, Landscaping, Gutters, and Downspouts.
11. Systems Testing, Final Cleaning, Substantial Completion.
12. Final Inspections, Certificate of Occupancy.
13. Move-In, Punch List Items, Warranty Period.



## **DESIGN CONSIDERATIONS BUILDING CODES AND FIRE SAFETY**

Reviews are based on the building codes adopted by the Oklahoma Uniform Building Code Commission. Currently the 2015 Edition of the International Building Code (IBC) and the 2015 International Fire Code (IFC) have been adopted. The 2006 Edition of NFPA 101, Life Safety Code is current as adopted by the Oklahoma State Fire Marshal. The reviews done by all permitting entities, including the local jurisdiction and the local or State Fire Marshal are completed to ensure that school projects are designed and constructed according to these codes. As an administrator, you may question why this is important. The answer is simple - to protect human life. Excerpts from each code follow:

### **International Building Code:**

***101.3 Intent.** The purpose of this code is to establish the minimum requirements to a reasonable level of public health, safety and general welfare through structural strength, means of egress facilities, stability, sanitation, adequate light and ventilation, energy conservation, and safety to life and property from fire and other hazards attributed to the built environment and to provide a reasonable level of safety to fire fighters and emergency responders during emergency operations.*

***Commentary.** The intent of the code is to set forth regulations that establish the minimum reasonable acceptable level to safeguard public health, safety and welfare and to provide protection for fire fighters and emergency responders in building emergencies... Like any code, the written text is subject to interpretation. Interpretations should not be affected by economics or the potential impact on any party. The only considerations should be protection of public health, safety and welfare and emergency responder safety.*

### **NFPA 101, Life Safety Code:**

***1.2\* Purpose.** The purpose of this Code is to provide minimum requirements, with due regard to function, for the design, operation, and maintenance of buildings and structures for safety to life from fire. Its provisions will also aid life safety in similar emergencies.*

### **State Fire Marshal (excerpt taken directly from the State Fire Marshal's Web site)**

*The Fire Marshal agency is charged with the responsibility of enforcing the codes and standards relative to fire and life safety adopted by the Oklahoma Uniform Building Code Commission and as designated by state statutes. The State Fire Marshal or his agents investigate acts of arson, or attempted arson, or conspiracy to defraud, and keep records of such investigations. The agents of the State Fire Marshal carry out an extensive fire prevention inspection program in schools, child care centers, hospitals, and other public-use buildings. The agency issues orders for condemnation or repair of dangerous or dilapidated buildings that constitute a hazard to life or other property. The State Fire Marshal examines plans and specifications of certain types of new construction or remodeling to see that they meet minimum fire safety requirements. This agency is authorized to assist any city, town or county in the enforcement of the building codes and standards adopted by the State of Oklahoma.*

### **Fire Statistics**

During 2008, structure fires in the United States totaled 515,000, with 2,900 civilian fire deaths,

14,960 civilian fire injuries, and \$12.4 billion in property damage. Between 2003 and 2006, educational property structure fires for preschools through twelfth grade totaled 4,870, with 65 civilian injuries and \$74.2 million in direct property damage. The leading causes of these fires were contained trash or rubbish fire, intentional and cooking equipment with the areas of origin being in the kitchen or cooking area, and bathrooms.

(Source Fire Loss in the United States During 2008 by Michael J. Karter, Jr., NFPA, Firefighter Fatalities in the United States – 2008 by Rita F. Fahy, Paul R. Leblanc and Joseph L. Molis, NFPA and Structure Fires in Educational Properties by Jennifer D. Flynn, NFPA Fire Analysis and Research Division)

### **Fire Prevention in Schools**

Inspections of all school buildings are necessary to safeguard the lives of our school children and staff. It is recommended that fire protection or fire prevention personnel complete an inspection annually and that a member of the school administration complete an inspection monthly. School administrators can utilize the “Self Inspection Form for Schools” that is available on the State Fire Marshal’s Web site.

In order to protect the building occupants the school administrator should ensure that:

- a. Fire alarms, fire extinguishers, and fire suppression systems are fully operational and inspected annually.
- b. The integrity of building exits are maintained, including providing panic hardware on exterior doors, not locking or blocking off exit doors or corridors, maintaining six-foot-wide unobstructed corridors, providing required number of exits out of classrooms, and adhering to occupancy load requirements.
- c. Emergency lighting is provided as required and the exit paths are identified with working exit signage.
- d. Good housekeeping is maintained, including keeping all areas clean and free of trash and debris.
- e. Walls are covered with non-combustible materials and that artwork in corridors is limited as required.
- f. Fuel-fired heating equipment is properly vented, clearances are maintained around electrical equipment and extension cords are not used.
- g. Fire drills are conducted at least two times each semester.

### **The Case for Automatic Fire Sprinklers**

The decision to provide automatic fire sprinklers in new and existing school buildings is often based on initial cost. However, an administrator should also consider the potential for reduced costs on insurance premiums as well as reduced property damage in the event of a fire. The most important thing to consider is, in the event of a fire, what the loss of life or property would mean to you and the school district.

#### **From the NFPA 101 - 2006, Supplement 3:**

*Sprinkler system effectiveness in terms of life safety is best summarized by the following statement, which is based on fire incident data: “NFPA has no record of a fire killing more than two people in a completely sprinkled building where the system was properly operating, except in an explosion or flash fire or where industrial or fire brigade members or employees were killed during fire suppression operations.”*

Automatic fire sprinklers are the most effective way of controlling and minimizing the damage caused by a fire. Sprinklers will often limit the fire to the room of origin. When sprinklers are provided, the codes allow for less stringent construction requirements. These include larger building square footages, increased dead-end corridor and exit distance lengths, eliminating fire rated walls in areas such as corridors, large storage areas, and janitor closets, and allowing windows to be inoperable.

## ACCESSIBILITY

The issue of accessibility is often confusing because accessibility requirements are defined by two separate sets of regulations: The Americans with Disabilities Act (ADA) and the International Building Code (IBC). Each summarized as follows:

### **Americans with Disabilities Act (ADA):**

- Civil rights law protecting rights of persons with disabilities.
- Scoping and Technical Provisions provided in: Accessibility Guidelines (2010): ADA Accessibility Guidelines (ADAAG) and Revised Accessibility Guidelines (2010): ADA Architectural Barriers Act (ADA-ABA) Guidelines. (<http://www.si.edu/content/accessibility/americans-disabilities-act.pdf>)
- Enforced by the United States Department of Justice (DOJ).

### **Building Code (As adopted by the Oklahoma Uniform Building Code Commission, International Building Code, 2015 Edition):**

- Building code protecting the health, safety, and welfare of all individuals.
- Scoping Provisions provided in Chapter 11: Accessibility.
- Technical Provisions provided in the referenced standard, ICC/ANSI A117.1.
- Enforced by the building officials of the local and/or state jurisdictions.

Though both organizations have worked to maximize consistencies, differences still exist between the two. However, the fundamental philosophy for both is the same. Everything is required to be accessible unless it is specifically exempted. This includes any new or renovated areas in existing buildings. Excerpts requiring this are shown below:

### **ADAAG**

#### ***ADAAG 4.1 Minimum Requirements.***

***4.1.1 Application. (1) General.*** All areas of newly designed or newly constructed buildings and facilities and altered portions of existing buildings and facilities shall comply with section 4, unless otherwise provided in this section or as modified in a special application section.

#### **ADA-ABA Guidelines:**

##### ***201 Application***

***201.1 Scope.*** All areas of newly designed and newly constructed buildings and facilities and altered portions of existing buildings and facilities shall comply with these requirements.

#### **International Building Code:**

##### ***Section 1103 Scoping Requirements***

***1103.1 Where required.*** Sites, buildings, structures, facilities, elements and spaces, temporary or permanent, shall be accessible to persons with disabilities.

***3302.1 Alterations, repairs and additions.***

Required *exits*, existing structural elements, fire protection devices and sanitary safeguards shall be maintained at all times during *alterations, repairs* or *additions to any building or structure*.

**Exceptions:**

1. Where such required elements or devices are being altered or repaired, adequate substitute provisions shall be made.
2. Maintenance of such elements and devices is not required when the existing building is not occupied.

## **ENERGY**

Energy costs are significant for school districts. The United States Department of Energy notes that studies have shown that nearly one-third of the energy consumed in the average school is wasted. By reducing this waste, energy costs for school districts can be reduced. With the right plan, a school district can reduce their energy consumption and ultimately their energy costs, allowing them to redirect that money towards education.

### **Energy Management Program**

Reducing energy costs requires making energy efficiency a top priority. Administrators must provide direction and leadership to the faculty, staff, and students, utilizing the 20 x 2020 State Energy Program, an energy management plan run by the State of Oklahoma through the Office of Management and Enterprise Services that:

1. Establishes the district's energy benchmark, including the historical data over a 5 to 10 year period for both energy usage and cost.
2. Develops and implements the plan for reducing energy consumption.
3. Reports the results to faculty, staff, students, and the community on a regular basis.

In existing and recently constructed buildings, it is important to advise faculty, staff, and students of the energy goals and educate them about the energy management plan. This serves as an educational tool to teach those involved about energy conservation as well as making them instrumental in the success of the program.

In new construction, it is important to inform the architect and engineers of the district's energy goals early in the process. The designers can then work with the district to identify and evaluate the energy-saving options available and the associated maintenance issues, initial costs, and life-cycle costs. This evaluation between the owner and design team will determine the best solutions for the particular project. Often minimal additional costs in construction result in significant savings over the life of the building.

### **Energy Reduction Methods**

There are numerous products, materials, methods, and procedures to increase energy efficiency and reduce energy consumption in buildings. Costs range from free to expensive with installation or implementation being simple or complex. Not only for new construction, many can be retrofitted on existing buildings. The energy reduction methods listed below are intended to provide guidance as to the different options available and is not comprehensive.

### **Site Design**

Evaluate the impacts of the building on the site and incorporate environmentally friendly solutions.

1. Existing Conditions  
Utilize existing landscape and natural features to block prevailing winds and the sun.
2. Building Orientation  
Maximize solar access for daylighting by orienting the building on an east-west axis.
3. Daylighting  
Provide natural light to classrooms by maximizing glazing on the north and south facades and employing clearstory lighting and skylights.
4. Landscape and Vegetation

Use local or adapted plants that require minimal irrigation and plant strategically to shade the building or block prevailing winds.

### **Building Envelope**

Provide a barrier to the elements by utilizing high performing materials and products in the building envelope.

#### 1. Windows and Doors

Windows and glass in doors should be double-glazed with an inert gas and provided with low-e coatings. Windows should have a low U-factor and a low SHGC while providing a high VT value. Operable windows will allow for natural ventilation on days with moderate temperatures. Steel doors should be insulated. Look for the Energy Star label.

#### 2. Insulation

In new construction, exceed the minimum standards providing high R-values in exterior walls and ceiling/roof assemblies and use perimeter insulation on the foundation. In existing buildings, insulate the attic and/or provide insulation at all ceilings.

#### 3. Exterior and Interior Shading

Control solar heat gain and glare while allowing access to daylighting by providing exterior overhangs or shades and interior blinds or shades.

### **Air Infiltration**

#### 1. Close Doors and Windows

Keep doors and windows closed when heating or cooling systems are on.

#### 2. Weather-stripping and Caulk

Replace or provide weather-stripping at all exterior doors. Provide new caulking at the perimeter of all door and window frames on the interior and exterior.

#### 3. Vestibules

Provide vestibules at exterior entrance doors to reduce the exterior unconditioned air from entering the building and the interior conditioned air from leaving the building.

### **Lighting**

#### 1. Turn Off Lights

It is estimated that 8 to 10% of lighting energy can be saved by turning off lights in unoccupied spaces.

#### 2. Institute a Lighting Policy

Delay turning on lights in the morning, turn off nonessential lighting after students leave and turn off all lights, except security and exits lights, at nights and on weekends, holidays, and breaks.

#### 3. Clean and Replace

Dirt and dust can reduce the amount of output from lamps by as much as 15% per year. Increase lighting output by periodically cleaning the bulbs and fixtures with a dry cloth. When diffusers become discolored, they should be replaced.

#### 4. Upgrade Exit Signs

Replace existing exit signs with LED exit signs. LED signs use about 5% of the energy used by incandescent signs and 20% of that used by fluorescent. LED signs can last 25 years without lamp replacement with a payback period of less than one year.

#### 5. Occupancy Sensors

Utilize occupancy sensors to turn off lights in unoccupied spaces. To ensure full energy

savings, ensure the sensors are calibrated for short intervals. As an added savings, circuit the exhaust fans with the occupancy sensors.

6. Timers, Photosensors, and Motion Detectors

Timers are useful in rooms or spaces that have predictable occupancy hours, such as libraries. Photosensors and motion detectors are good for exterior lighting including security lighting.

7. Bi-Level Switching and Dimming Ballasts

Provide multiple switches to control the amount of light in a space by placing either different fixtures or different lamps in the fixtures on different switches or provide ballasts that are dimmable.

8. Re-Lamp

Re-lamping is the process of replacing lamps that are not performing at their peak. Replace all incandescent bulbs with fluorescent bulbs. Upgrade T12 to T8 or T5 with electronic ballasts. Switching from T12 to T8 can reduce lighting energy by 20-30%. Consider replacing lamps at 70-80% of lamp life to eliminate burn out.

9. De-Lamp

De-Lamping is the process of removing fluorescent lamps from a light fixture when illumination levels are excessive - for example, using only 2 bulbs in a 3-bulb fixture. Good areas for de-lamping include areas where bright light is not a necessity, such as near windows, doors, corners, over computers and televisions, near skylights and corridors off the main hall. Ensure that lighting levels follow the recommendations of the Illuminating Engineering Society of North America and never compromise safety. Also, installing spectral reflectors is considered a compliment to de-lamping

10. Use the Sun

On days when natural light is sufficient to illuminate the classroom, turn off the lights or turn down the lights, utilizing bi-level switching, and open the blinds.

### **Plug Loads**

1. Computers, Copiers, Printers, and Other Equipment

Turn off equipment when not in use, including nights, weekends, holidays, and breaks. Set power-save modes to power equipment down when not in use during the day. When replacing equipment, ensure new equipment is Energy Star-rated.

2. Vending Machines

Vending machines that operate continuously are estimated to cost \$200 to \$350 per year per vending machine. Install energy control devices or turn off vending machines when the building is unoccupied. Also, de-lamp or remove the lights from vending machines.

3. Vampire Power

Phantom loading or vampire power refers to the electrical power used by electronic devices when they are turned off or in standby mode. Individually, a device will typically pull a low amount of electricity, but when added together the energy use can be significant. Standby power accounts for 5-10% of residential energy use and 6-7% of building energy use. Utilize surge protectors to connect computer workstations (computer, monitor, printer, etc.) or groups of computers, so that the entire system can be shut off on the surge protector at the end of the day.

### **Heating Ventilation and Air Conditioning (HVAC)**

1. Reduce the Use of HVAC Equipment

Ensure that HVAC systems operate at maximum and minimum temperatures when the building is unoccupied for extended periods of time such as summer and winter breaks.



## 2. Maintenance

Schedule and provide routine maintenance on all HVAC equipment inspecting, cleaning, repairing, replacing, and adjusting to ensure the equipment is working properly and at its best. Ensure a qualified technician performs annual maintenance on the hot water boiler which can reduce energy consumption by 10-20%.

## 3. Temperature Guidelines

Provide guidelines for thermostat settings in classrooms and encourage staff and students to adhere to them.

## 4. Programmable Thermostats

Provide programmable thermostats, program each thermostat, and train faculty and staff on the proper use. Ensure that programming is adjusted over long breaks.

## 5. Ducts and Water Piping

Inspect and fix air and water leaks. Seal and provide insulation on all ducts and water pipes, and inspect and repair the seals and insulation on a regular basis.

## **Water Heating**

1. Maintenance and Temperature Adjustment complete routine maintenance on water heaters including flushing tanks, tuning up and repairing any water leaks. Also, set the thermostat to the lowest legal and acceptable temperature.

## 2. Timers

Place timers on water heaters to reduce energy use when the building is unoccupied.

## 3. Size and Placement

Size the water heater, so that the hot water supplied is in line with the demand. For tank-type water heaters, locate the water heaters near the area where the hot water is utilized to eliminate long runs of hot water piping. Also, provide either a booster heater or dedicated heater for kitchens and laundries where water temperatures are required to be higher.

## 4. On Demand Hot Water

Consider utilizing tankless-water heaters to eliminate continual heating of hot water or utilize at-the-source water heaters for single fixtures such as a sink in a science laboratory.

## **Kitchens**

### Appliances

Clean hidden coils and vents on appliance to maintain peak performance. Reduce the operating time of ovens, vent hoods, warmers, dishwashers and mixers. Do not preheat oven for more than 15 minutes. Only operate vent hoods when necessary.

## **Big Deal – Big Investment**

Items that require a significant investment but can lead to significant energy savings include the following:

1. Geothermal Heating and Cooling Systems
2. Energy Management Systems
3. Solar Power
4. Wind Power

## **Outside the Building School Grounds Design and Construction Landscape Architectural Services**

**What is a Landscape Architect?** Landscape Architects are trained to analyze, plan, manage and nurture the built and natural environments. Landscape Architects can have a significant impact on academic and corporate campuses, communities and the overall quality of life affecting the users. Landscape Architects design school campuses, parks, hospital grounds, therapeutic gardens, learning gardens, outdoor classrooms, streetscapes, trails, plazas and other projects that help define a community, school or other public place. A Landscape Architect is uniquely trained and licensed to assist the architect and other design professionals in the design of the built environment while bridging the gap between the built environment and nature. Landscape Architecture is one of the most diversified of the design professions trained to design the exterior built environment while protecting and managing the natural environment. Members of the profession have a special commitment to improving the quality of life through the best designed places for people and other living things.

A Landscape Architect is a type of architect that designs outdoor spaces. Their work includes planting design and plant selection, site analysis, site improvements including walkways, plazas, parking areas, vehicular and pedestrian circulation, athletic facilities, site grading and storm water drainage design.

**When does a project require a Landscape Architect?** The State Architectural and Registered Interior Designers Act requires a Licensed Landscape Architect be involved in all commercial and institutional projects that also require an Architect, when the site improvements exceed 10% of the project budget. However, the Landscape Architect can provide many benefits and cost savings for any of your projects, large or small. The Landscape Architect should be considered for all project teams to help provide the District with the highest and best project for the District, the students and the voting public.

### **What can a Landscape Architect bring to a project when he/she is part of the Design Team?**

The Landscape Architect is specifically trained to provide design expertise on exterior spaces. A properly designed school campus provides visually appealing, safe, creative spaces for both students and the public. These designs can raise the quality of life for both the school and the surrounding community.

Site design can include but is not limited to:

Properly graded sites to provide adequate storm water runoff away from structures, play equipment and other activity areas;

Provide safe interaction with students, vehicular traffic and bus traffic;

Aesthetically pleasing spaces for users and the surrounding community;

Develop creative learning and safe outside spaces for students and teachers

These are achieved while weighing the balance between Student and Public Impact and Long-Term Maintenance.

**Selecting a Landscape Architect** – A Landscape Architect can be hired by the School Board for a single project such as a playground renovation project; or he may be hired by the Architect as part of a Design Team for a larger project. Typically, a Landscape Architect is part of the Design Team for Major Bond Issue project such as Track and Football field upgrades in conjunction with a classroom expansion project. Hiring a “stand-alone” Oklahoma licensed Landscape Architect can be done by a separate contract or under the architectural contract as a consultant on the project. It is important the District hires a capable Oklahoma licensed Landscape Architect they trust and are willing to work with.

**Site Specific concerns on which a Landscape Architect can assist the School Superintendent and the Design Team** – Landscape Architects are trained and experienced to design and problem solve site issues. On a school campus, safety is the number one issue, followed by cost and function. The following are just some of the things that should be considered in the design of a school campus, and a Landscape Architect can guide the District through this and many more site items.

### **Playground Concerns**

The Landscape Architect can provide site design guidance and oversight to protect the students, Parents, Teachers and the General Public while accessing the site and using site elements.

1. **Improper Protective Surfacing** – Long gone are the days of using rock or even wood mulch as a protective surface under activity areas such as swings, climbing structures and other play structures. Today materials such as ground rubber and mats are available. Proper selection of these materials can save the district dollars in maintenance while providing the safest platform for play.
2. **Inadequate Use Zone** – Each play structure has a fall zone that is determined by Codes and/or the Manufacturer. Each fall zone is different in size and shape. Having the ability to design the playground with the proper fall zone and correct perimeter edging is paramount for a successful project. This type of design also needs to consider access and site grading/storm water runoff. When designing a new or renovated playground, consideration must also be give to equipment spacing and fall zone overlap. Some structures can overlap fall zones while others require complete separation along with much larger areas.
3. **Protrusions and Entanglement Hazards** – Understanding how play structures are constructed is also important in providing a safe site for the youth. Structure hardware, if the wrong type, is capable of catching strings or items of clothing worn around a child’s neck. This type of entanglement is especially hazardous because it might result in strangulation. Equipment also needs to be reviewed for areas at the top of slides and sliding devices for protruding hardware and gaps that may act as a hook and catch clothing.

4. **Entrapment in Openings** – Entrapment in Openings may occur on both play ground structures, fencing, and guardrails. Attention to design is required to make sure these site elements are designed correctly and safely. As an example, openings in playground equipment between 3.5 to 9 inches should be checked for possible head entrapment, while handrails and guardrails must also be designed to meet the American Disability Act and the International Building Code.
5. **Trip Hazards** - Trip Hazards can be created by various things within a playground or school campus. All things installed must be reviewed and thought through concerning trip hazards. Some of these include:
  - a. Walks that have shifted;
  - b. Exposed concrete footings;
  - c. Abrupt changes in surface elevation;
  - d. Tree roots when wrong plant material has been selected;
  - e. Rocks and other landscape features; and
  - f. Play structure perimeter edging.

### **General Site Considerations**

1. Separation of Bus Lanes and Car Drop off lanes – Safety should always be at the top of the list during the design of the site. Separating bus traffic and vehicular traffic will make for better traffic flow within the site, allow for easier turning motion for the buses and will create a safer site for all users.
2. Providing adequate stacking for parent pick-up lanes – Especially at the elementary and middle schools, adequate stacking for pick up lanes is essential. Preventing long lines of cars from protruding onto the street and into the adjoining neighborhood will allow for better, more organized traffic flow, while lowering the stress of the parents and adjacent neighbors.
3. Synthetic turf applications vs. natural turf applications for football and other sports fields. Making the right decisions can save the district maintenance cost for years to come. However, this has to be balanced between upfront cost and life cycle cost.
4. Design of on-site walking/exercise trails – These walking trails are typically used by the school and the public. Exercise trails can be worked into physical education programs or afterschool sports programs.
5. Site grading and on-site storm water design – The first step in creating a great finished site is making sure the storm water runoff has been considered. The Landscape Architect can provide detailed grading. Storm water and erosion control plans will assure the district of a successful well-thought-out project. Understanding of where the runoff will head and what erosion will occur will protect not only the District's property but your neighbors and the community.

6. Design of on-site science areas and outdoor classroom spaces – Providing outdoor alternative classrooms for the study of wetlands, nature or just being able to experience the outdoors is desirable in most schools.
7. Proper plant material selection and size – A Landscape Architect is trained to assist the Design team with selecting the right plant material for the best location and use. Following are some considerations that the Design team, with the assistance of the Landscape Architect, should consider on every project.
  - a. Drought Resistance Plant Material - Through proper plant selection, drought resistance selection can save plant material replacement and long-term watering requirements.
  - b. Insect and Disease Resistance Plant Material – Using resistant plant material will keep your plants looking their best for years to come with lower maintenance cost.
  - c. Weather Resistant Plant Material – Selecting strong wood plant material can help to minimize winter weather damage and freeze out.
  - d. Deciduous vs. Evergreen – Using a balanced design will provide the district with a pleasing landscape year round.
8. Selecting the Right Size Plants – Plants come in all shapes and sizes. Choosing the right plants to put next to a building or next to a walk can become a major maintenance concern for the District. The wrong plants can damage walks, damage foundations and faces of building, block windows and create hiding places.
9. Selecting the Right Placement
  - a. Soil Consideration - Optimal Plants for the Existing Soils.
  - b. Sun and Shade - Plants that perform best in full sun, partial sun or shade applications.
  - c. Restricting Views and Hiding Spaces - Best Plants for preventing Hiding Spaces or Restricting Views by Supervising Personal.
  - d. Planting for restricted areas - Best Plants for placement below overhead lines or overtop of underground utilities that are acceptable to utility companies and will not cause future damage or clearance issues to utilities.
  - e. Plantings for pedestrian and vehicular clearances – Selecting the right plants for parking and playground areas not having low hanging branches or require yearly trimming to be usable. Also planting locations should be considered that might block driver or pedestrian views for safety.
  - f. Determining the right installation details for long term safety and maintenance
  - g. Providing High Public Impact while controlling the cost.
  - h. Providing alternatives for irrigation systems – The right system can save cost for the District and save water.

## 10. Safety Concerns

- a. Large hedges and low branching trees to allow someone to hide behind.
- b. Plant Material that attracts Bees, wasps or other problems insects.
- c. Plant material that are poisonous or thorny or fruits.
- d. Plants with low hanging limbs.
- e. Drainage Issues causing erosion or ice hazards.
- f. Fencing design and location to provide safe playground and site use for users.

## 11. Function and Access Concerns

- a. Providing walks to connect to high use areas and building access points.
- b. Designing playground and other areas to provide accessibility access.
- c. Design of multi-use areas for maximum campus usability.
- d. Design of outdoor eating, classroom and learning areas
- e. Design of outdoor shade areas for users.
- f. Design of safe gathering or staging areas for parent pickup or bus loading.
- g. Excessive slopes within the campus.
- h. Incorrectly designed or placement of dumpster location and maintenance areas.
- i. Designing outdoor areas to promote socialization of students to help break down barriers and reduce bullying issues.

As you can see there are many things that need to be considered in the design of the District's new or renovated school campus. The Landscape Architect is here and equipped to help provide you with a final project that the District and students are expecting and will be excited to use.

## PUBLICATIONS AND LINKS

### Publications

ADAAG, 2010 and ADA-ABA Guidelines, 2010: <[www.access-board.gov/adaag/about](http://www.access-board.gov/adaag/about)>  
ICC/ANSI A117.1, 2009 Edition: <[iccsafe.org](http://iccsafe.org)>  
International Building Code, 2015 Edition: <[iccsafe.org](http://iccsafe.org)>

### National Links

American Institute of Architects (AIA): <[www.aia.org](http://www.aia.org)>  
International Code Council (ICC): <[www.iccsafe.org](http://www.iccsafe.org)>  
National Fire Protection Agency (NFPA): <[www.nfpa.org](http://www.nfpa.org)>  
Americans with Disabilities Act (ADA): <[www.ada.gov](http://www.ada.gov)>  
United States Access Board: <[www.access-board.gov](http://www.access-board.gov)>

### State Links

Oklahoma Board of Architects: <[www.ok.gov/Architects](http://www.ok.gov/Architects)>  
Oklahoma State Department of Education: <<http://sde.ok.gov/sde/>>  
Oklahoma School Law Book: <<http://sde.state.ok.us/Law/LawBook/default.html>>  
Oklahoma State Fire Marshal: <[www.ok.gov/fire](http://www.ok.gov/fire)>  
Oklahoma Uniform Building Code Commission: <[www.ok.gov/oubcc](http://www.ok.gov/oubcc)>  
Board of Professional Engineers and Land Surveyors: <[www.pels@ok.gov](mailto:www.pels@ok.gov)>  
Office of Disabilities Concerns <[www.ok.gov/odc](http://www.ok.gov/odc)>  
State Department of Health [www.ok.gov/health/protective Health/Consumer Health Service/Public Bathing Places/index.html](http://www.ok.gov/health/protective%20Health/Consumer%20Health%20Service/Public%20Bathing%20Places/index.html)  
Oklahoma State Department of Health Protective Health/Consumer Health Service  
[www.ok.gov/health/protective Health/Consumer Health Service/Public Bathing Places/index.html](http://www.ok.gov/health/protective%20Health/Consumer%20Health%20Service/Public%20Bathing%20Places/index.html)  
Cooperative Council for Oklahoma School Administration  
[www.ccosa.org](http://www.ccosa.org)  
Oklahoma State Boards Association  
[www.ossba.org](http://www.ossba.org)  
Oklahoma Construction Industries Board: [www.ok.gov/cib](http://www.ok.gov/cib)

### Sustainability Links

Alliance to Save Energy: <[www.ase.org](http://www.ase.org)>  
Energy Star: <[www.energystar.gov](http://www.energystar.gov)>  
Oklahoma Green Schools: <[www.okgreenschools.org](http://www.okgreenschools.org)>  
U.S. Department of Energy: <[www.eere.energy.gov](http://www.eere.energy.gov)>  
U.S. Green Building Council Green School Buildings: <[www.greenschoolbuildings.org](http://www.greenschoolbuildings.org)>

## **APPENDIX A**

### **Plan Review Guidelines for Oklahoma Public School Construction Projects**

**Any time a Storm Shelter/Safe Room or Area of Protection is being provided in any occupancy the building plan must be submitted for review by the Oklahoma State Fire Marshal's office.**

**Each separate building must be permitted separately.**

**Each safe room/storm shelter must be permitted separately Buildings with a safe room/storm shelter within a building must be permitted separately.**

**A phased project must be permitted separately.**

**A project with a remodel and new construction must be permitted separately and be accompanied by a new building application and an existing building application.**



## **APPENDIX A**

A list of all required forms for the State Fire Marshal's Office are listed below:

### **Forms**

Plan Review Requirements and Processes  
Building Plan Review Submittal Requirements  
Fire Alarm Plan Review Submittals Requirements  
Fire Sprinkler Plan Review Submittal Requirements  
Suppression systems Plan Review Submittal Requirements  
Building Plans Processing Checklist  
New Construction Building Permit Application Form (B)  
Existing Building Plans Processing Checklist  
Existing Building Plan Permit Application Form (EB)  
Tornado/Storm Shelter/Place of Refuge Plans Processing Checklist  
Tornado/Storm Shelter Permit Application Form (SS)  
Fire Sprinkler Project Permit Application Form (FS)  
Hood/Alternative Suppression Project Permit Application Form (HS)  
Fire Alarm Project Permit Application Form (FA)  
Sample Construction Plans  
State Fire Marshal Schedule of Fees

**A COPY OF ALL THE CURRENT FORMS CAN BE FOUND AT  
[WWW.OK.GOV/FIRE](http://WWW.OK.GOV/FIRE)**

Note: As of July 1, 2018 the forms are in the processes of being changed by the Oklahoma State Fire Marshal's Office. Please use the website above for all forms.

# **Plan Review Guidelines for Oklahoma Public School Construction Projects**

## **Legislative Authorization**

In accordance with 74 O.S. § 324.11, the following occupancies shall have a building permit issued by the Oklahoma State Fire Marshal when there is no local authority having jurisdiction;

All occupancies identified by the International Building Code except Mercantile (M) and Utility (U) must be reviewed by the State Fire Marshal's office, including schools, hospitals, churches, asylums, theaters, meeting halls, hotels, motels, apartment houses, rooming houses, rest homes, nursing homes, day nurseries, convalescent homes, orphanages, auditoriums, assisted living facilities, dormitories, factories, stadiums, warehouse and all defined occupancies within these groups. Storm shelters/safe rooms meeting FEMA standards are reviewed under FEMA P-361/P-320 and ICC 500. If not wanting to meet FEMA standards, the building area has no criteria and is considered an Area of Protection for storms only. Area of Refuge for fire has criteria found in IBC Section 1009.

**Any time a Storm Shelter/Safe Room or Area of Protection is being provided in any occupancy the building plan must be submitted for review by the Oklahoma State Fire Marshal's office.** The State Fire Marshal's forms and checklists are listed Appendix A.

## **Basis of Review**

1. Oklahoma Statutes and Administrative Code as last adopted by the Uniform Building Code Commission, reference O.S. 59, Section 1000.03
2. International Building Code, 2015 Edition
3. NFPA 101 (Life Safety Code), 2006 Edition
4. ICC/ANSI A117.1, 2009 Edition
5. Department of Justice, 2010 ADA Standards for Accessible Design
6. International Fire Code, 2015
7. International Existing Building Code, 2015

## **Review Submittals**

Projects shall be submitted as follows:

1. Completed permit application forms, including license stamp and signature of professionals.
2. Two (2) printed sets of modified plans to scale must be submitted to the Oklahoma State Fire Marshal's office. See specifics on the Oklahoma State Fire Marshal's website.
3. A disk must be submitted with everything on it.

4. Plans cannot be emailed to the Oklahoma State Fire Marshal's Office.
5. A link to an FTP site or any other online provider is **not acceptable** for plans to be submitted for review to the State Fire Marshal's Office.
6. Modified architectural plans as identified by the State Fire Marshal's Office are acceptable. Civil, Structural, mechanical (unless fire/smoke dampers are being installed), electrical (unless emergency lights and exit signs are shown on a specific sheet) and plumbing plans are **not accepted**.
7. A project manual is **not accepted** by the State Fire Marshal's Office.
8. Estimated Cost of the Work.
9. Method of Construction (General Contractor, Construction Manager, Force, etc.)
10. Contact Information for Correspondence - Contact name and e-mail for Architect, District Superintendent, and any other person who should receive the comments.

### **Review Letter**

After the project has been reviewed and approved or approved with exceptions by the local or State Fire Marshal's Office as the Authority Having Jurisdiction, they will send back one reviewed plan with stamps, one set of review comments stapled to the plans, and one permit to the Architect of Record only. Sometimes the Architect will identify another entity to send the plans back to, in this case the reviewed plans, comments, and permit will be sent to them only. It is the responsibility of the Architect of Record or designee to provide plans and plan review comments to the school, to the job site, and any subsequent entity. Disapproved plans will be returned stating the reasons why and corrections needing attention.

### **Contact Information**

These offices are available to assist school districts, architects and engineers, and construction professionals.

For questions or more information, please contact:

Oklahoma Uniform Building Code Commission  
Billy Pope, Chief Executive Officer  
2401 N. W. 23<sup>rd</sup> Street, Suite 2-F  
Oklahoma City, OK 73107  
Email: [billy.pope@oubcc.ok.gov](mailto:billy.pope@oubcc.ok.gov)  
[www.ok.gov/oubcc](http://www.ok.gov/oubcc)

Oklahoma State Fire Marshal  
2401 N. W. 23<sup>rd</sup> Street, Suite #4  
Oklahoma City, OK 73107  
Phone: (405) 522-5005  
Email: JC.Carroll@fire.ok.gov  
[www.ok.gov/fire](http://www.ok.gov/fire)

Oklahoma Board of Architects, Landscape Architects and Registered Interior Designers  
Leslie Hanska, Executive Director  
220 N. E. 28<sup>th</sup> Street, Suite 150  
Oklahoma City, Oklahoma 73105  
Email: [leslie.hanska@boardofarch.ok.gov](mailto:leslie.hanska@boardofarch.ok.gov)  
Phone: (405) 949-2383  
[www.ok.gov/architects](http://www.ok.gov/architects)

Oklahoma Board of Professional Engineers and Land Surveyors  
Bruce Pitts, P.L.S., Assistant Director/Director of Enforcement  
220 N. E. 28<sup>th</sup> Street, Suite 120  
Oklahoma City, Oklahoma 73105  
Phone (405) 522-3445  
Email: [bpitts@pels.ok.gov](mailto:bpitts@pels.ok.gov)  
[www.pels.ok.gov](http://www.pels.ok.gov)

Office of Disability Concerns & ADA  
Doug MacMillian, Executive Director  
1111 N. Lee Avenue, Suite 500  
Oklahoma City, OK 73103  
Phone: (405) 522-6700  
Email: [doug.macmillian@odc.ok.gov](mailto:doug.macmillian@odc.ok.gov)  
[www.ok.gov/odc](http://www.ok.gov/odc)

Oklahoma State Department of Health  
Protective Health/Consumer Health Service  
1000 N.E. 10<sup>th</sup> Street, Suite 305  
Oklahoma City, Oklahoma 73117-1299  
Phone (405)271-8097  
Email: [StateBoardofHealth@Health.ok.gov](mailto:StateBoardofHealth@Health.ok.gov)  
[www.ok.gov/health/protective Health/Consumer Health Service/Public Bathing Places/index.html](http://www.ok.gov/health/protective%20Health/Consumer%20Health%20Service/Public%20Bathing%20Places/index.html)  
VaLauna Grissom, Secretary to the Oklahoma State Board of Health  
Email: [VaLaunag@health.ok.gov](mailto:VaLaunag@health.ok.gov)

State Department of Education  
Matt Holder, Deputy Superintendent of Finance and Federal Programs  
2500 North Lincoln Boulevard  
Oklahoma City, Oklahoma 73105-4599  
Phone (405) 522-3713  
Email: [Matt.Holder@sde.ok.gov](mailto:Matt.Holder@sde.ok.gov)

Cooperative Council for School Administration  
Dr. Pam Deering, Executive Director  
2901 Lincoln Boulevard  
Oklahoma City, Oklahoma 73105  
Phone (405)524-1191  
Email: [deering@ccosa.org](mailto:deering@ccosa.org)

Oklahoma State School Boards Association  
Shawn Hime, Ph.D., Executive Director  
2801 North Lincoln Boulevard, Suite 125  
Oklahoma City, Oklahoma 73105  
Phone (405) 528-3571  
Email: [shawnh@ossba.org](mailto:shawnh@ossba.org)  
[www.ossba.org](http://www.ossba.org)

Oklahoma Construction Industries Board  
Janis Hubbard, Administrator  
2401 N.W. 23<sup>rd</sup> St., Suite 2F  
Oklahoma City, OK73107  
Phone (405) 521-6550  
Phone (405) 521-6546  
FAX: (405) 521-6525  
[jan.hubbard@cib.state.ok.us](mailto:jan.hubbard@cib.state.ok.us)  
[www.ok.gov/cib](http://www.ok.gov/cib)

## **APPENDIX B**

### **Forms**

Bid Affidavit	36
Bid Notice	37
Business Relationships Affidavit	38
Certification of Asbestos Free Construction	39
Certification of Compliance with Asbestos Restrictions	40
Defect Bond	41
Designation of Purchasing Agent	42
Invoice Affidavit	43
Non-Collusion Affidavit	44
Notice to Proceed	45
Performance Bond	46
Statement of Compliance Regarding Prohibition of Felony and Sex Offenders	47
Statutory (Payment) Bond	48

**BID AFFIDAVIT**

STATE OF \_\_\_\_\_ )

COUNTY OF \_\_\_\_\_ ) ss.

\_\_\_\_\_, of lawful age, being first duly sworn, on oath says that she/he is the agency authorized by the bidder to submit the attached bid. Affiant further states that the bidder has not been a party to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or refrain from bidding, or with any state official or employee as to quality, or price in the prospective contract, or any other terms of said prospective contract, or in any discussions between bidders and any state official concerning exchange of money or other things of value for special consideration in the letting of contract.

Signed by:

\_\_\_\_\_  
Bidder

\_\_\_\_\_  
(Printed name and title)

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
(My Commission Expires)

\_\_\_\_\_  
Notary Seal or Stamp

**BID NOTICE**

Sealed Proposals will be received by \_\_\_\_\_, at its office located at \_\_\_\_\_, until \_\_\_\_\_ o'clock p.m., Central Time, on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_, at which time said bids will be opened for furnishing all labor and material for:

\_\_\_\_\_  
(Name of Project)

The bidding documents, including the drawings and specifications are on file in the above office and are open for public inspection.

Bids received more than ninety-six (96) hours, excluding Saturdays, Sundays, and holidays, before the time set for opening of bids, as well as bids received after the time set for opening of bids, will not be considered and will be returned unopened.

Bids will be publicly opened and read aloud at the above-mentioned office immediately following the closing time stated above.

The bidding documents, including the drawings and specifications, may be obtained from (either the architect, school or contractor, as you determine) upon a deposit of (\$\_\_\_\_\_ per set). Bidders returning drawings and project manuals in good condition will be refunded their deposit. Bidders returning documents later than ten (10) days after the bid opening will not be refunded their deposit. A bid must be submitted or notice of non-bid must be given two (2) days prior to bid date to be eligible for refund.

A cashier's check, a certified check, or a surety bond in the amount of five percent (5%) of the base bid and all alternates shall accompany the sealed proposal of each bidder. Deposits will be returned to the unsuccessful bidders.

The time period within which a contract will be executed following award to the successful bidder is \_\_\_\_\_ (\_\_\_\_) days. (Not to exceed 60 days)

\_\_\_\_\_ reserves the right to reject any or all bids.  
(Name of Agency)

There will be a pre-bid conference at \_\_\_\_\_  
on \_\_\_\_\_ at \_\_\_\_\_.

Bidding documents are available for review at the following location(s):

\_\_\_\_\_  
Advertisement Published: \_\_\_\_\_

\_\_\_\_\_  
(Name of Agency)





**CERTIFICATION OF ASBESTOS-FREE CONSTRUCTION**

STATE OF \_\_\_\_\_ )  
 ) ss.

COUNTY OF \_\_\_\_\_ )

Project: \_\_\_\_\_ School  
\_\_\_\_\_ Public Schools

District No. \_\_\_\_\_  
\_\_\_\_\_ County, Oklahoma

\_\_\_\_\_, hereby certifies that no asbestos-containing material has  
(Contractor)

been furnished or installed at the above-referenced construction project.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signed by:

\_\_\_\_\_  
Contractor or Supplier

\_\_\_\_\_  
(Printed name and title)

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
(My Commission Expires)

**CERTIFICATION OF COMPLIANCE WITH ASBESTOS RESTRICTIONS**

STATE OF \_\_\_\_\_ )  
 ) ss.  
COUNTY OF \_\_\_\_\_ )

The undersigned Contractor, of lawful age, being first duly sworn, on oath says that:

- A. Building materials or products incorporated or installed in the construction will be free of asbestos or asbestos products of any kind.
- B. Certification of Compliance with Asbestos Restrictions will be included in any sub-contract connected with the performance of work for this project.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signed by:

\_\_\_\_\_  
Contractor or Supplier

\_\_\_\_\_  
(Printed name and title)

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
(My Commission Expires)

**DEFECT BOND**

KNOW ALL MEN BY THESE PRESENTS:

That \_\_\_\_\_ as Principal, hereinafter referred to as Contractor, and \_\_\_\_\_ a corporation organized under the laws of the state of \_\_\_\_\_ and authorized to transact business in the state of Oklahoma, as Surety, are held and firmly bound unto the Awarding Public Agency of the state of Oklahoma (Owner) in the penal sum of: \_\_\_\_\_ Dollars (\$\_\_\_\_\_ ) in lawful money of the United

States of America, said sum being equal to One Hundred percent (100%) of the Contract price, for the payment of which, well and truly to be made, we bind ourselves and each of us, our heirs, executors, administrators, trustees, successors, and assigns, jointly and severally, firmly by these presents.

The condition of this obligation is such that:

WHEREAS, Contractor entered into written Contract with the Awarding Public Agency of the State of Oklahoma (Owner), on this \_\_\_\_\_, day of \_\_\_\_\_ 20\_\_\_\_, for the construction or repair of a public building or structure, or improvement to real property, further described as:

\_\_\_\_\_  
(Name of Project)

all in compliance with the Drawings and Specifications therefore, made a part of said Contract and on file in the office of the Awarding Public Agency, of the state of Oklahoma (Owner).

NOW THEREFORE, if said Contractor shall pay or cause to be paid to the Awarding Public Agency (Owner) all damage, loss, and expense which may result by reason of defective materials, and/or workmanship in connection with said work, occurring within a period of one (1) year from and after the acceptance of said project by the Awarding Public Agency (Owner); then this obligation shall be null and void, otherwise to be and remain in full force and effect.

It is further expressly agreed and understood by the parties hereto that no changes or alterations in said Contract and no deviations from the plan or mode of procedure herein fixed, shall have the effect of releasing the sureties or any of them from the obligations of this Bond.

IN WITNESS WHEREOF, the said Contractor has caused these presents to be executed in its name and its corporate seal to be hereunto affixed by its duly authorized officers, and the said Surety has caused these presents to be executed in its name and its corporate seal to be hereunto affixed by its attorney-in-fact, duly authorized so to do, this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_.

\_\_\_\_\_  
Contractor By \_\_\_\_\_ Title

Attest: \_\_\_\_\_ Surety: \_\_\_\_\_  
Attorney-In-Fact

By: \_\_\_\_\_

Address: \_\_\_\_\_  
Street, City, State, Zip

Telephone: \_\_\_\_\_

**DESIGNATION OF PURCHASING AGENT**

This is an Agency Agreement made and entered into as of the \_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_, between \_\_\_\_\_ School District, Number \_\_\_\_\_ of \_\_\_\_\_ County, Oklahoma, a political subdivision of the state of Oklahoma (hereinafter referred to as "Owner"), and \_\_\_\_\_ (hereinafter referred to as "Contractor").

**RECITALS:**

1. Owner has solicited bids for the construction project \_\_\_\_\_ in \_\_\_\_\_ County, Oklahoma; and such facilities as are necessary and appropriate for the operation thereof; which Project, on or before completion shall be owned by the Owner.
2. Contractor has been awarded the contract for the construction of the Project.
3. Owner desired to purchase all materials, supplies, and equipment for the Project in its own name and to take immediate title to all materials, supplies, and equipment, and to have Contractor, as general contractor for the Project, perform portions of such purchasing duties.

**NOW THEREFORE**, in consideration of the premises and in order to constitute and appoint Contractor as agent of the Owner for the purchase of equipment and materials for the Project, **IT IS AGREED AS FOLLOWS:**

1. Owner, as Principal, hereby constitutes and appoints Contractor as Owner's agent, for it and in its name, to acquire materials and equipment for us in construction the Project.
2. Title to all materials and equipment purchased by Contractor as agent for Owner will pass directly from the seller thereof to Owner.
3. Contractor acknowledges that it is an agent for Owner and agrees to act as agent for Owner in connection with the acquisition of materials and equipment for the Project in the manner described above.
4. The relationship of principal and agent created by the Agreement shall continue until terminated by either party by notice in writing to the other. The parties hereto agree that all sellers or vendors of materials and equipment for the Project shall be entitled to rely upon the existence of the Agreement until they have received written notice of the revocation.
5. Contractor agrees that it will not purchase any material or equipment pursuant to the Agreement except as authorized and intended for inclusion in the Project.
6. In executing purchase orders for equipment and materials for the Project, Contractor shall include in each purchase order a statement, to be approved as to form by Owner, that Contractor is acting as Owner's agent, individually and without power of re-designation for the purchase of the equipment and materials covered by the purchase order.
7. All equipment and materials purchased by Contractor under this Agreement shall be delivered to Owner at the Project job site.
8. Only equipment and materials to be incorporated in the Project shall be purchased by Contractor as Owner's agent under this Agreement and no equipment and materials will be purchased except the items required by the plans and specifications for the Project. Contractor will not purchase, as agent hereunder, any equipment or materials to be used only incidentally in connection with the Project. Nothing contained herein shall alter the obligation and responsibility of the Contractor under the contract between Owner and Contractor for the construction of the Project.
9. All reimbursement by Owner to Contractor for materials and equipment purchased by Contractor as Owner's agent hereunder shall be deemed to be a part payment on the Project contract price.
10. Contractor shall not be entitled to any compensation for its services as Owner's agent hereunder.

**IN WITNESS WHEREOF**, the parties have executed this Agency Agreement as of the date first written above.

\_\_\_\_\_ School District, No. \_\_\_\_\_ of \_\_\_\_\_ County, Oklahoma

ATTEST: \_\_\_\_\_  
(Clerk)

\_\_\_\_\_  
(President of Board)

(SEAL)  
ATTEST: \_\_\_\_\_  
(Secretary)

\_\_\_\_\_  
(Contractor)



**NON-COLLUSION AFFIDAVIT**

STATE OF \_\_\_\_\_ )  
 ) ss  
COUNTY OF \_\_\_\_\_ )

\_\_\_\_\_, of lawful age, being first duly sworn, on oath says:

1. I am the duly authorized agent of \_\_\_\_\_, the bidder submitting the competitive bid attached to this statement, for the purpose of certifying the facts pertaining to the existence of collusion among bidders and between bidders and state officials or employees, as well as facts pertaining to the giving or offering of things of value to government personnel in return for special consideration in the letting of any contract pursuant to said bid;
2. I am fully aware of the facts and circumstances surrounding the making of the bid to which this statement is attached and have been personally and directly involved in the proceedings leading to the submission of such bid; and
3. Neither the bidder nor anyone subject to the bidder's direction or control has been a party:
  - a. to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding,
  - b. to any collusion with any state official or employee as to quantity, quality or price in the prospective contract, or as to any other terms of such prospective contract, nor
  - c. in any discussions between bidders and any state official concerning exchange of money or other things of value for special consideration in the letting of a contract.

Signed by:

\_\_\_\_\_  
Bidder

\_\_\_\_\_  
(Printed name and title)

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_.

\_\_\_\_\_  
Notary Public  
My Commission Expires: \_\_\_\_\_  
My Commission Number: \_\_\_\_\_

(SEAL)

**NOTICE TO PROCEED**

To: \_\_\_\_\_  
(Contractor)

From: \_\_\_\_\_  
(Awarding Agency)

YOU ARE HEREBY NOTIFIED that all contract documents have been executed and accepted in relation to the Contract entered into on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between \_\_\_\_\_, acting  
(State or other entity)  
by and through the \_\_\_\_\_ and \_\_\_\_\_,  
(Name of Agency) (Contractor)  
and the work may now be commenced in accordance with said Contract.



**PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS:

That \_\_\_\_\_ as Principal, hereinafter referred to as Contractor, and \_\_\_\_\_ a corporation organized under the laws of the state of \_\_\_\_\_ and authorized to transact business in the

state of Oklahoma, as Surety, are held and firmly bound unto the Awarding Public Agency of the state of Oklahoma (Owner) in the penal sum of: \_\_\_\_\_ Dollars

(\$\_\_\_\_\_) in lawful money of the United States of America, said sum being equal to One Hundred percent (100%) of the Contract price, for the payment of which, well and truly to be made, we bind ourselves and each of us, our heirs, executors, administrators, trustees, successors, and assigns, jointly and severally, firmly by these presents.

The condition of this obligation is such that:

WHEREAS, Contractor entered into a written Contract with the Awarding Public Agency of the state of Oklahoma (Owner), this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, for the construction or repair of a public building or structure, or improvement to real property, further described as:

\_\_\_\_\_  
(Name of Project)

all in compliance with the Drawings and Specifications therefore, made a part of said Contract and on file in the office of the Awarding Public Agency of the state of Oklahoma (Owner).

**NOW THEREFORE**, if said Contractor shall, in all particulars, well, truly and faithfully perform and abide by said Contract and each and every covenant condition, and part thereof and shall fulfill all obligations resting upon said Contractor by the terms of said Contract and said Specifications; and if said Contractor shall protect and save harmless said Awarding Public Agency (Owner) from any pecuniary loss resulting from the breach of any of the items, covenants and conditions of said Contract resting upon said Contractor, then this obligation shall be null and void, otherwise to be and remain in full force and effect.

It is further expressly agreed and understood by the parties hereto that no changes or alterations in said Contract and no deviations from the plan or mode of procedure herein fixed shall have the effect of releasing the sureties or any of them, from the obligations of this Bond.

**IN WITNESS WHEREOF**, the said Contractor has caused these presents to be executed in its name and its corporate seal to be hereunto affixed by its duly authorized officers, and the said Surety has caused these presents to be executed in its name and its corporate seal to be hereunto affixed by its attorney-in-fact, duly authorized so to do, the day and year set forth below.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

Contractor: \_\_\_\_\_

Attest: \_\_\_\_\_

By: \_\_\_\_\_

Surety: \_\_\_\_\_

Title: \_\_\_\_\_

By: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

**STATEMENT OF COMPLIANCE REGARDING PROHIBITION OF  
FELONY AND SEX OFFENDERS ON SCHOOL PREMISES**

**Senate Bill 588**

**Section 1:**

- A. *It is unlawful for any person registered pursuant to the Oklahoma Sex Offenders Registration Act to work with or provide services to children or to work on school premises, or for any person or business who Offers Or Provides services to children or contracts for work to be performed on school premises to knowingly and willfully allow any employee to work with children or to work on school premises who is registered pursuant to the Oklahoma Sex Offenders Registration Act. Upon conviction for any violation of the provisions of this subsection, the violator shall be guilty of a misdemeanor punishable by a fine not to exceed One Thousand Dollars (\$1,000.00). In addition, the violator may be liable for civil damages.*
- B. *A person or business who offers or provides services shall ensure compliance with subsection A of this section as provided by Section 6-101.48 of Title 70 of the Oklahoma Statutes.*

**Section 2:**

- A. *No person or business having a contract with a school or school district to perform work on a fulltime or part-time basis that would otherwise be performed by school district employees shall allow any employee to work on school premises if such employee is convicted in this state, the United States or another state of any felony offense unless ten (10) years has elapsed since the date of the criminal conviction or the employee has received a presidential or gubernatorial pardon for the criminal offense.*
- B. *Every person or business performing services not subject to subsection A of this section on the property of a school or school district shall be required to sign a statement declaring that no employee working on school premises under the authority of such business is currently registered under the provisions of the Oklahoma Sex Offenders Registration Act and that the business is not in violation of the provisions of this section. Compliance with this statute shall be required of the person or private business and there shall be no obligation placed upon a school district to ascertain the truthfulness of the affidavit.*
- C. *A person or business having a written contract with a school or school district to perform work on a full-time or part-time basis that would otherwise be performed by school district employees may conduct a felony search of the employees of the person or entity who would be assigned that work through a request to the State Board of Education in the same manner as a felony search afforded school districts by Section 5-142 of Title 70 of the Oklahoma Statutes.*

The undersigned is familiar with the facts stated above and agrees that this law will be observed.

Person/Business Name \_\_\_\_\_

Authorized Representative \_\_\_\_\_

Authorized Representative's Signature \_\_\_\_\_

Social Security Number or Federal ID Number \_\_\_\_\_

Date \_\_\_\_\_ Project \_\_\_\_\_

For \_\_\_\_\_ School District, No. \_\_\_\_\_

of \_\_\_\_\_ County, Oklahoma.

Return Statement of Compliance to: School District Name, District Code, City, State, Zip

**STATUTORY BOND**

KNOW ALL MEN BY THESE PRESENTS:

That \_\_\_\_\_ as Contractor, and \_\_\_\_\_ as Principal, hereinafter referred to a corporation organized under the laws of the state of \_\_\_\_\_ and authorized to transact business in the state of Oklahoma, Surety, are held and firmly bound unto the Awarding Public Agency of the state of Oklahoma (Owner) in the penal sum of : \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) in lawful money of the United States of America, said sum being equal to One Hundred percent (100%) of the Contract price, for the payment of which, well and truly to be made, we bind ourselves and each of us, our heris, executors, administrators trustees, successors, and assigns, jointly and severally, firmly by these presents.

The condition of this obligation is such that:

**WHEREAS**, Contactor entered into a written Contract with the Awarding Public Agency of the state of Oklahoma (Owner), this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, for the construction or repair of a public building or strcture, or improvement to real property, futher described as:

\_\_\_\_\_  
(Name of Project)

all in compliance with the Drawings and Specifications therefore, made a part of said Contract and on file in the office of the Awarding Public Agency of the state of Oklahoma (Owner).

**NOW THEREFORE**, if said Contractor shall, in all particulars, well, truly and faithfully perform and abide by said Contract and each and every covenant condition, and part thereof and shall fulfill all obligations resting upon said Contractor by the terms of said Contract and said Specifications; and if said Contractor shall protect and save harmless said Awarding Public Agency (Owner) from any pecuniary loss resulting from the breach of any of the items, covenants and conditions of said Contract resting upon said Contractor, then this obligation shall be null and void, otherwise to be and remain in full force and effect.

It is further expressly agreed and understood by the parties hereto that no changes or alterations in said Contract and no deviations from the plan or mode of procedure herein fixed shall have the effect of releasing the sureties or any of them, from the obligations of this Bond.

**IN WITNESS WHEREOF**, the said Contractor has caused these presents to be executed in its name and its corporate seal to be hereunto affixed by its duly authorized officers, and the said Surety has caused these presents to be executed in its name and its corporate seal to be hereunto affixed by its attorney-in-fact, duly authorized so to do, the day and year set forth below.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

Contractor: \_\_\_\_\_

Attest: \_\_\_\_\_

By: \_\_\_\_\_

Surety: \_\_\_\_\_

Title: \_\_\_\_\_

By: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

# WHEN IS AN ARCHITECT REQUIRED FOR MY EDUCATION PROJECT?

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The following checklist is a guide to see when an architect is required for an Education project in the State of Oklahoma. These requirements are from the **Oklahoma State Architectural and Registered Interior Designers Act, Section 46.21b; and Oklahoma Administrative Code, Title 55:10, Rules**. For more information please refer to both documents. If there are any further questions when an architect is required please contact the Board of Governors of Licensed Architects, Landscape Architects and Registered Interior Designers of Oklahoma at **(405)949-2383** or your local Authority Having Jurisdiction (AHJ) from your city or county.

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An architect is required for your education project  
if **any** of the following situations occur:

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- When the building addition, renovation, or alteration affects the primary structural, mechanical, or electrical systems, life safety systems, or exit passageways.**
  
  - When the occupancy is Education (E) or Assembly (A-2) or (A-3) with 50 or more occupants.  
(As defined by current IBC code)**
  
  - When the project is more than 2 stories in height.**
  
  - When the occupancy is Assembly (A-1) (Assembly and theaters), (A-4) (Assembly, arenas and courts), or (A-5) (Assembly, bleachers and grandstands).  
(As defined by current IBC code)**
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**Note:**

- Assembly A-1: includes areas for production or viewing of performing arts, typically with fixed seating.
- Assembly A-2: includes areas for food and drink consumption.
- Assembly A-3: includes areas for worship, recreation, amusement or other assembly areas not identified such as indoor sporting areas without spectator seating, libraries and galleries.
- Assembly A-4: includes areas for viewing indoor sporting events and activities with spectator seating.
- Assembly A-5: includes areas for participation in or viewing outdoor activities