

COUNTY OF DuPAGE, ILLINOIS



CAMPUS BUILDING MANAGEMENT

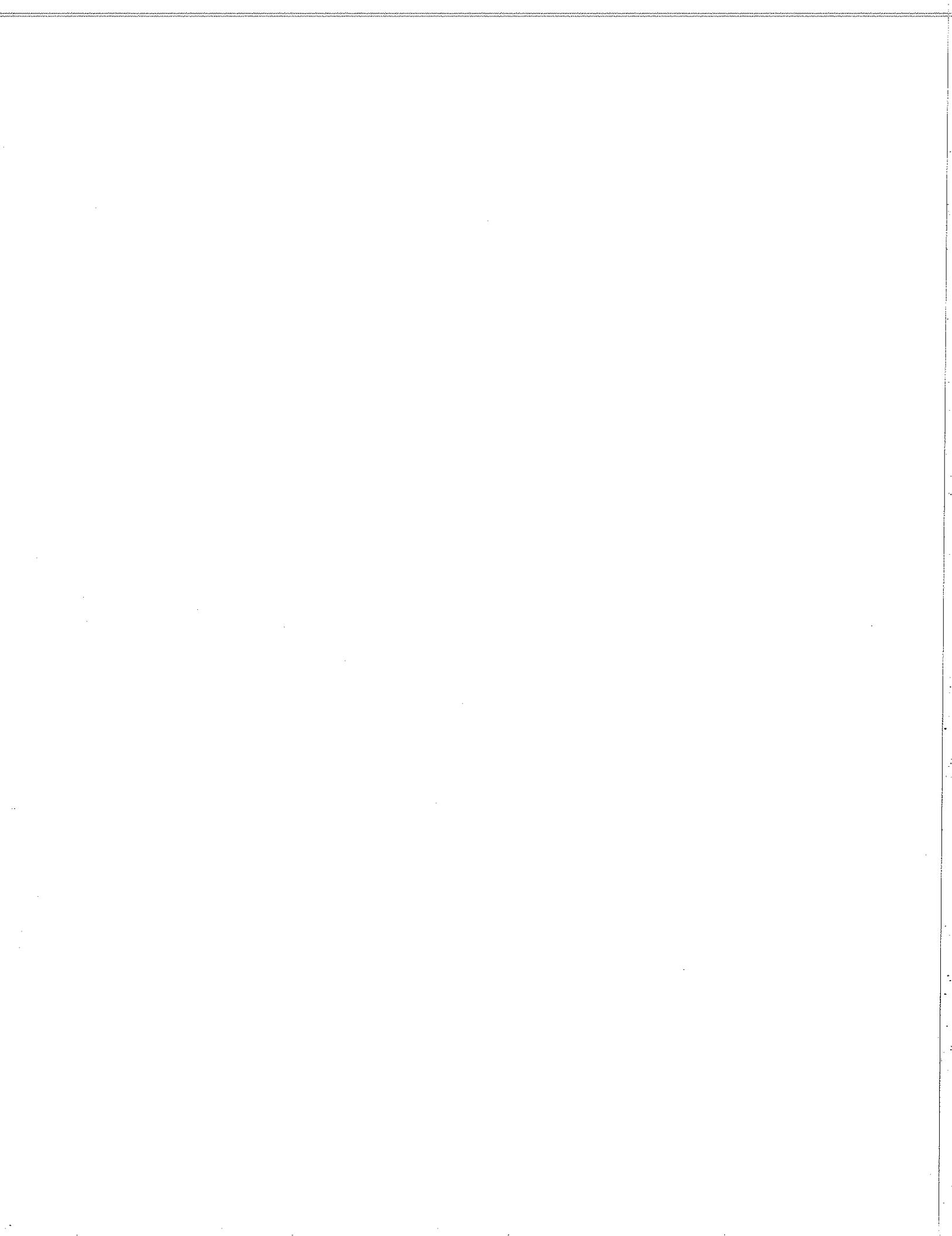
SYSTEM UPGRADE

BID #11-054

BID OPENING DATE:

MAY 25, 2011, 11:00 A.M.

**DuPage County Procurement Division
421 North County Farm Road
Wheaton, Illinois 60187-3978
(630) 407-6200**





DuPage County
DANIEL J. CRONIN
COUNTY BOARD
CHAIRMAN

COUNTY OF DuPAGE, ILLINOIS
PROCUREMENT DIVISION
421 North County Farm Road, Room 3-400
Wheaton, IL 60187-3978

TX: (630) 407-6200

FX: (630) 407-6201

MAY 4, 2011
BID NO. 11-054
DUE DATE: MAY 25, 2011

To All Prospective Bidders:

You are hereby invited to submit your bid for "BID #11-054" for **CAMPUS BUILDING MANAGEMENT SYSTEM UPGRADE**.

A **MANDATORY** pre-bid meeting will be held on **MAY 11, 2011**, at **10:00 a. m.** at the DuPage County Administration Center, Room 1-500B, 421 N. County Farm Road, Wheaton, IL. Bids will not be accepted from bidders who fail to attend this mandatory pre-bid meeting.

Bid documents may be obtained at the DuPage County Administration Center, Procurement Division, Room 3-400, 421 North County Farm Road, Wheaton, IL, between the hours of **8:30 a. m.** and **4:00 p. m.**, Monday through Friday. No fee is required for the bid documents. Bid documents will not be mailed. The County of DuPage will not transmit facsimile bid specifications to the bidders.

The above designated work on which bids are requested, generally and briefly consists of providing all equipment, material, labor, software and services necessary for the installation of a full and complete upgraded campus wide building management system. All contracts for the construction of public works are subject to the Illinois Prevailing Wage Act (820 ILCS 130/1-12).

All bids must be received in duplicate, in sealed envelopes that have (1) your name and address in the **UPPER** left corner, and (2) the bottom portion of the enclosed bid label affixed to the **LOWER** left corner.

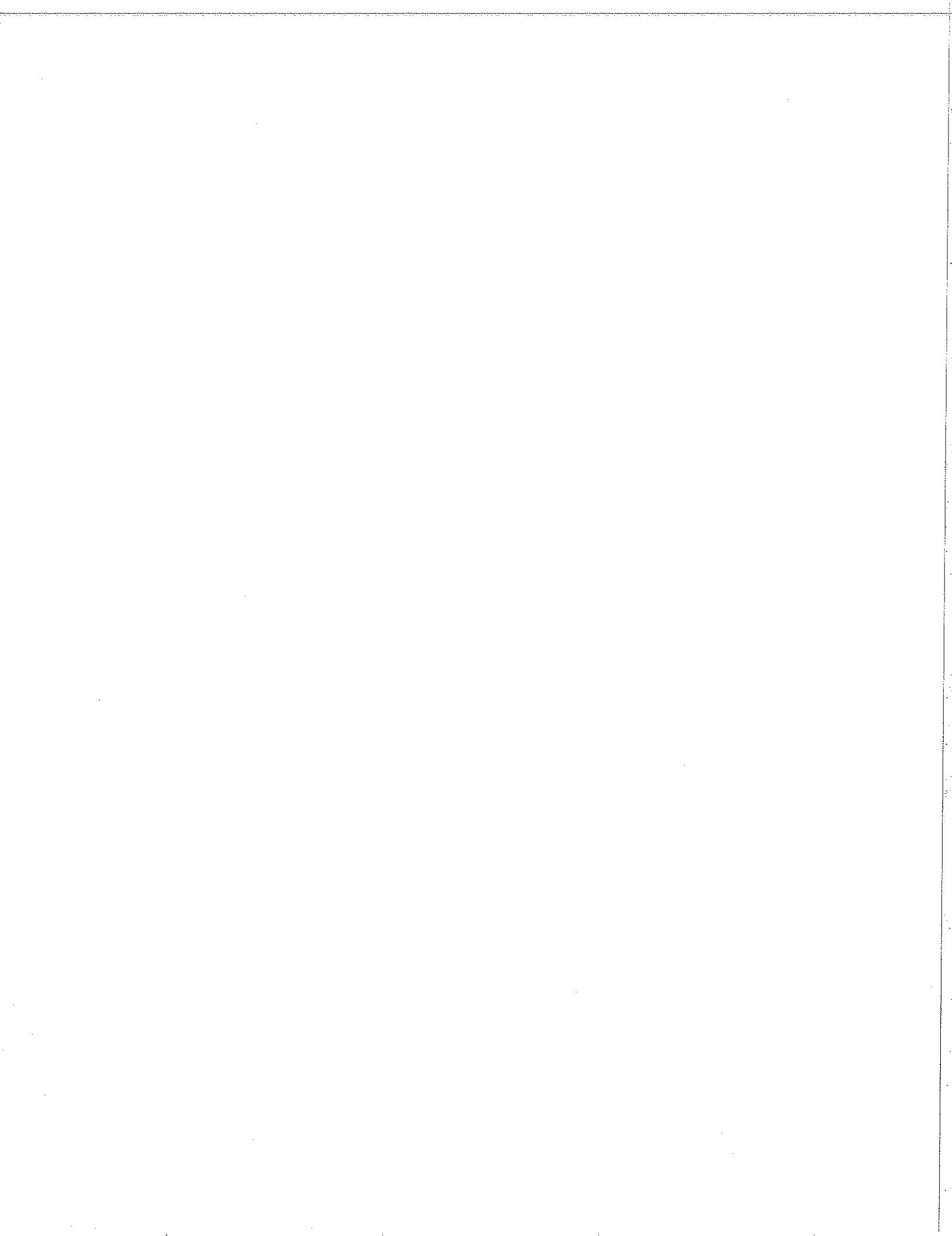
If your firm declines to bid on this invitation, but desires to remain on the County of DuPage Bidders' list for future invitations, please submit in a sealed envelope or fax **(630) 407-6201**, a letter stating why you are declining to bid. Mark the envelope "NO BID" and attach label to the front of the envelope.

BIDS AND NO BIDS MUST BE RECEIVED AND TIME STAMPED IN THE PROCUREMENT DIVISION, ROOM 3-400, 421 NORTH COUNTY FARM ROAD, WHEATON, ILLINOIS 60187-3978, NO LATER THAN 11:00 A.M. CENTRAL TIME, ON THE PUBLIC BID OPENING DATE OF MAY 25, 2011.

The Contractor shall include with his bid, a bid security in the amount of 5% of the total bid, in the form of a bid bond, certified check or cashier's check made payable to the DuPage County Treasurer's Office. Any bid received without the required bid security will not be read after it is opened.

All bids are subject to staff analysis. The County of DuPage reserves the right to accept or reject any and all bids received and waive all technicalities.

Peter F. Costa

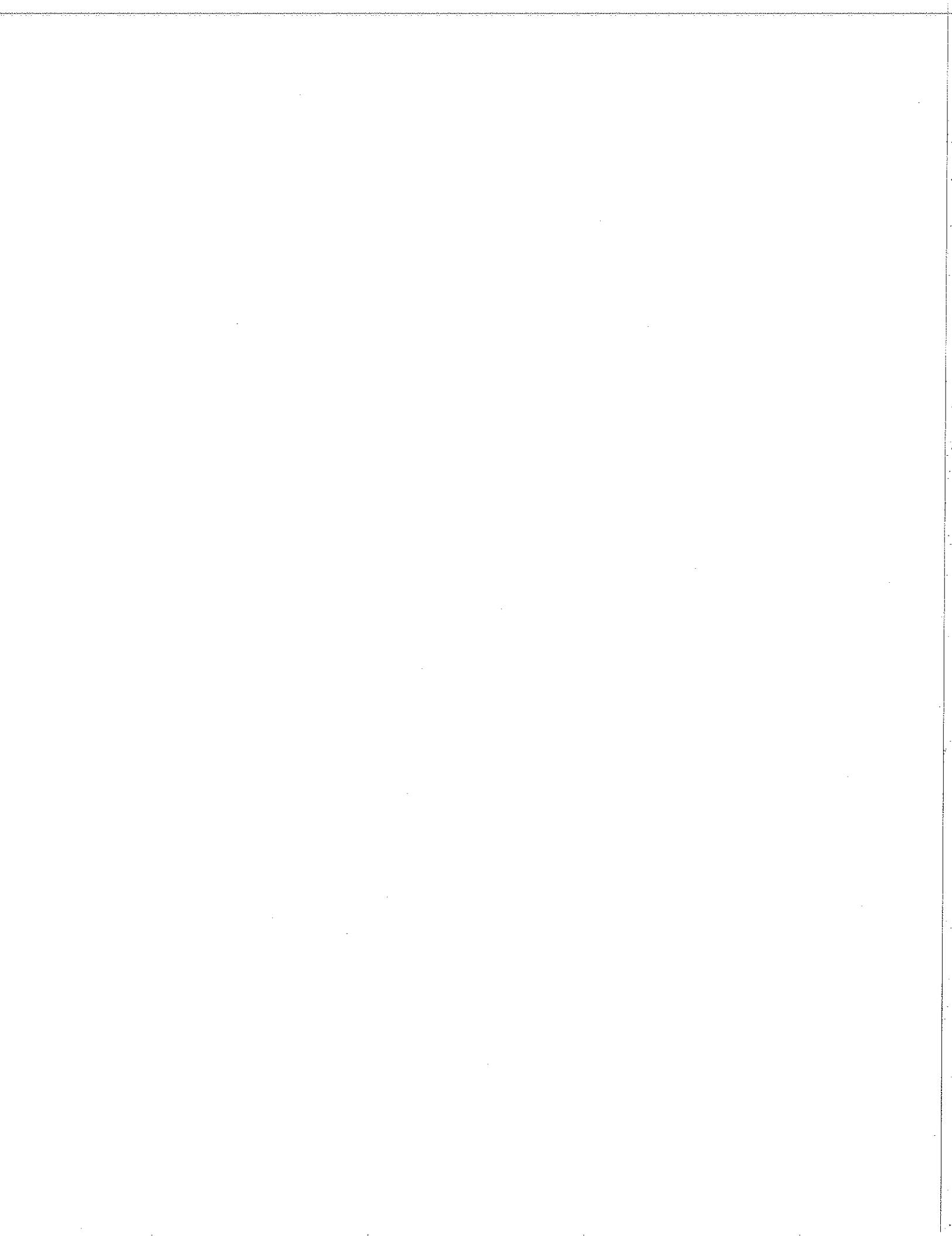


LATE BIDS CANNOT BE ACCEPTED!

<u>SEALED BID PROPOSAL</u>	
INVITATION #:	11-054
OPENING DATE:	MAY 25, 2011
OPENING TIME:	11:00 A.M., CENTRAL TIME
DESCRIPTION:	CAMPUS BUILDING MANAGEMENT SYSTEM UPGRADE
DATED MATERIAL-DELIVER IMMEDIATELY	

PLEASE CUT OUT AND AFFIX THIS BID LABEL
TO THE OUTERMOST ENVELOPE OF YOUR
PROPOSAL TO HELP ENSURE PROPER
DELIVERY!

LATE BIDS CANNOT BE ACCEPTED!



COUNTY OF DuPAGE, ILLINOIS

PROJECT INFORMATION

BID 11-054

PROJECT NAME: CAMPUS BUILDING MANAGEMENT SYSTEM UPGRADE

DEPARTMENT: FACILITIES MANAGEMENT

EVENT	DATE	TIME	LOCATION
Advertisement Date	MAY 4, 2011		
Mandatory Pre Bid Meeting & Site Visit	MAY 11, 2011	10:00a.m.	DuPAGE COUNTY ADMINISTRATION CENTER, ROOM 1-500B, 421 N. COUNTY FARM ROAD, WHEATON, IL
Final date for questions and addenda	MAY 17, 2011	12:00 p.m.	
Bids/Proposals Due	MAY 25, 2011	11:00 a.m.	PROCUREMENT DIVISION, ROOM 3-400, 421 N. COUNTY FARM ROAD, WHEATON, IL
Anticipated Award Date	JUNE 14, 2011		

TO BE SUBMITTED WITH BID:-

- DUPLICATE COPIES
- ADDENDA NUMBER, IF APPLICABLE
- REFERENCES
- BID PRICES
- BID FORM COMPLETED, WITH AUTHORIZED SIGNATURE, SEAL (IF CORPORATION) AND NOTARY PUBLIC
- ETHICS STATEMENT
- BID SECURITY (IF REQUIRED)
- LIST OF EXCEPTIONS TAKEN, IF ANY, TO THE SPECIFICATIONS

PREVAILING WAGE: AS REQUIRED

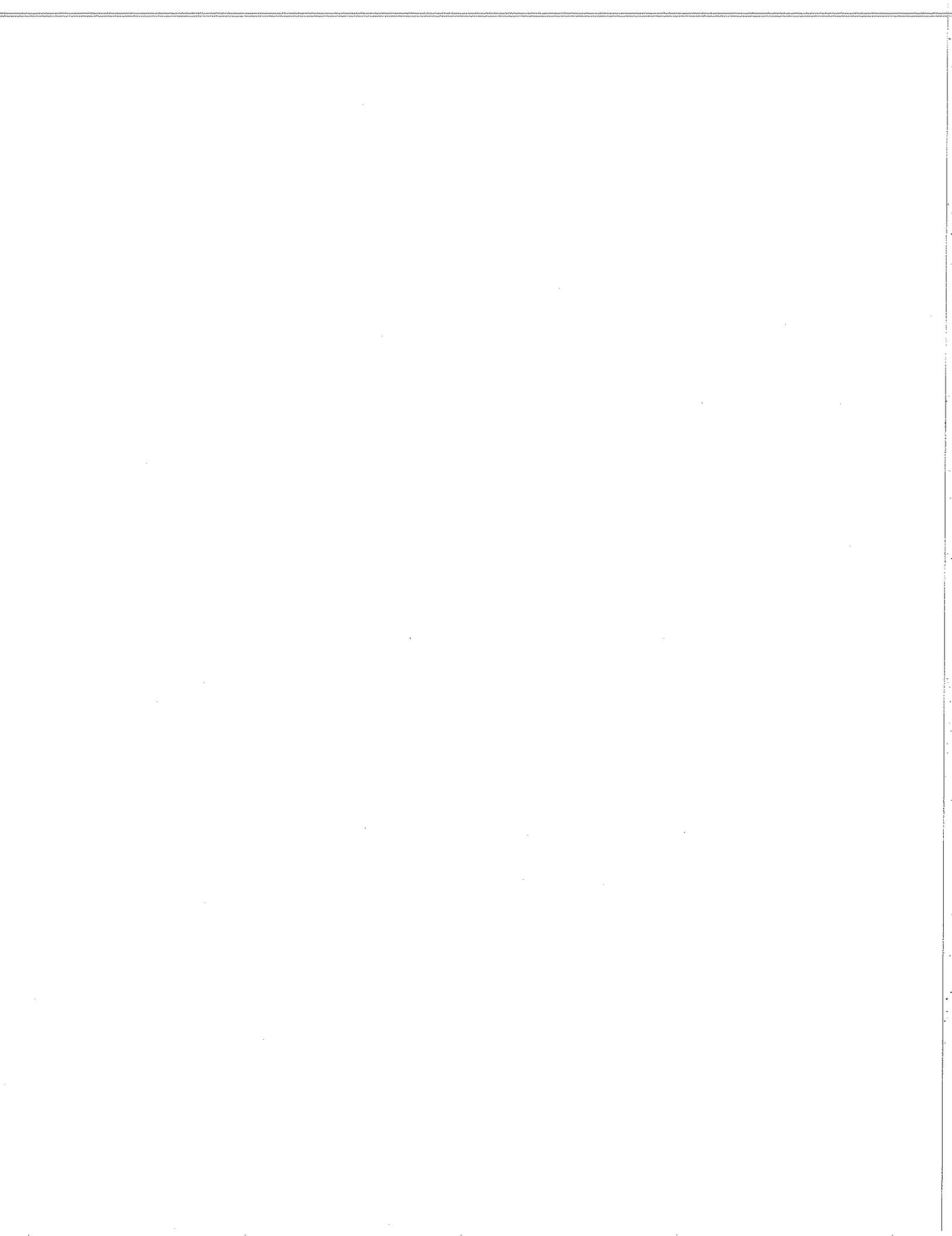
PROPOSAL SECURITY: 5% OF TOTAL BID

CONTACT PERSON: PETER F. COSTA PHONE #: (630) 407-6183
FAX #: (630) 407-6201

TECHNICAL QUESTIONS BOB LILJIGREN PHONE #: (630) 407-6806

AWARDED CONTRACTOR REQUIREMENTS:

- EXECUTED AGREEMENT YES
- PERFORMANCE AND PAYMENT BOND YES
- CERTIFICATE OF INSURANCE YES



DU PAGE COUNTY, ILLINOIS
CAMPUS BUILDING MANAGEMENT SYSTEM UPGRADE
BID #11-054
INVITATION TO BID

RECEIPT OF BID

Sealed Bids marked or endorsed "BID #11-054" for **CAMPUS BUILDING MANAGEMENT SYSTEM UPGRADE** are invited and will be received by the Procurement Division at the DuPage County Center, Room 3-400, 421 North County Farm Road, Wheaton, Illinois, on or before but not later than 11:00 a m, Central time, on MAY 25, 2011, and immediately thereafter all bids will be publicly opened in the Procurement Division Conference Room and the bid prices read aloud.

Bids are required to be submitted on the Bid Form, which is included in the Contract Documents.

MANDATORY SITE VISITATION AND PRE-BID MEETING

A **MANDATORY** pre-bid meeting will be held on MAY 11, 2011, at 10:00 a. m. at the DuPage County Administration Center, Room 1-500B, 421 N. County Farm Road, Wheaton, IL. Bids will not be accepted from bidders who fail to attend this mandatory pre-bid meeting.

GENERAL DESCRIPTION OF WORK

The above designated work on which bids are requested, generally and briefly consists of providing all equipment, material, labor, software and services necessary for the installation of a full and complete upgraded campus wide building management system. All contracts for the construction of public works are subject to the Illinois Prevailing Wage Act (820 ILCS 130/1-12).

CONTRACT DOCUMENTS

Copies of the Contract Documents for the subject work are on file and available for review and inspection at the Office of the Procurement Manager of DuPage County (DuPage County Center, Room 3-400, 421 North County Farm Road, Wheaton, Illinois 60187).

Copies of Contract Documents required for bidding purposes may be obtained only from the Procurement Division at the above Wheaton address.

BID SECURITY

Each bid shall be accompanied by a bid security in the form of (a) a Bid Bond (payable to the DuPage County Treasurer), or (b) a bank draft, cashiers check or money order payable to the order to the DuPage County Treasurer. The bid security shall be in an amount of not less than five percent (5%) of the bid as a guarantee that the bidder will, within fifteen (15) days after the date of the conditional award of a contract, execute an agreement as required by the Contract Documents, if its bid is accepted.

Bid Bonds shall be duly executed by the bidder as principal and have as surety thereon a surety company, approved by the County, having the minimum equivalent of a Best and Company A-V Rating.

If an intended awardee fails to furnish any bond, insurance or document required by the Contract Documents, the bid security submitted with its bid shall be forfeited as liquidated damages.

HOLDING OF BID

No bid shall be withdrawn for a period of ninety (90) days after the scheduled time of opening of bid without the consent of the County.

BONDS & INSURANCE

The successful bidder will be required to furnish a satisfactory Performance Bond and Payment Bond as specified in the General Conditions of the Contract. The successful bidder shall also provide an insurance certificate in accordance with the insurance requirements specified in the General Conditions of the Contract.

QUALIFICATIONS OF BIDDERS

It is the intention of the County to award a contract only to a bidder who furnishes satisfactory evidence that it has the requisite experience and ability and sufficient capital, facilities and plant to prosecute the work successfully and promptly and to complete the work within reasonable time. This evidence as set forth in the Proposal Signature Form shall be submitted with the bidder's bid.

The County may make such investigations as it deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the County all information and data for this purpose as the County may request. The County reserves the right to reject any bid if the evidence submitted by, or investigation of such bidder fails to satisfy the County that such bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein. Conditional bids will not be accepted.

CONSIDERATION AND ACCEPTANCE OR REJECTION OF BIDS

The County reserves the right to reject any Bid which, in the sole opinion of the County, is either non-responsive or is not in the best economic interest of the County. The County also reserves the right to exercise its discretion to waive any formality with respect to or any technical defect in any Bid.

DU PAGE COUNTY PROCUREMENT DIVISION
DU PAGE COUNTY, ILLINOIS
PETER F. COSTA

THE COUNTY OF DuPAGE, ILLINOIS
INSTRUCTIONS TO BIDDERS

1. EXAMINATION OF SITE

A bidder by submitting a bid represents that it has visited the site and become familiar with all the conditions under which the work is to be performed. No extra compensation will be allowed by reason of any matters or things concerning the project which the bidder did not inform itself prior to bidding.

2. EXAMINATION OF BIDDING DOCUMENTS

A bidder by submitting a bid represents that it has read and understands all of the Bidding Documents including but not limited to the Contract Documents, Drawings, Specifications, and other Information made Available to Bidders. Bid prices shall include any and all costs that may be necessary to complete the Work in accordance with the requirements of the Contract Documents.

3. INTERPRETATION OF CONTRACT DOCUMENTS

Questions regarding documents, discrepancies, omissions, or intent of the Specifications or Drawings shall be submitted in writing to the County through the Procurement Division at least ten (10) days prior to opening of bids to provide time for issuing and forwarding an Addendum. Any interpretation of the Contract Documents will be made only by Addendum duly issued or delivered by the County to the Contractors who obtained a set of Documents. The County will not be responsible for any other explanations or interpretations of the Contract Documents. Any bid submitted with an exception to any requirements of the Contract Documents shall cause rejection of the bid.

4. BID REQUIREMENTS:

All bids must be submitted on the blank bid form furnished with these contract documents and shall conform to the terms and conditions set forth in the "Instructions to Bidders", "General Conditions" and any "Special" or "Supplemental Conditions" of the contract. Bids (properly signed, together with the bid security) shall be enclosed in a sealed envelope addressed and entitled as specified in the Invitation to Bid and delivered to the office on or before the date and time designated in the Invitation to Bid. All Addenda issued shall be noted in the Documents at the time of bid submittal. Bidder shall acknowledge receipt of each addendum issued in the space provided on the Bid Form.

If applicable, the Bidder shall furnish with the bid, two sets of all available literature pertaining to the equipment and/or material to be furnished under the bid.

5. PRE-BID MEETING

A mandatory pre-bid meeting will be held on the date and at the time and place indicated in the Invitation to Bid.

6. SUBSTITUTION

Bidders shall base their bids upon the materials and equipment as described in the Contract Documents. If the bidder proposes a substitution for the materials and equipment specified, the County must receive specifications for the items proposed in accordance with the Substitution Procedures identified in the Project Specifications no later than ten (10) days prior to the bid opening. Neither the County nor the Architect has any obligation to review or respond to requests for substitutions. Any substitution of any of the bid line items without the written authorization of the County or the Architect, through the issuance of an Addendum within the stipulated timeframe, shall be cause for rejection of the bid.

7. PREPARATION OF BID

Only bids which are submitted on the Bid Form included in the Bidding Documents, will be considered. Bidders must sign the bid proposal form and all other documents where indicated and in ink. Any bids received that are unsigned will not be read after they are opened.

Unless otherwise stated, all blank spaces on the bid form page or pages, applicable to the subject specification, shall be correctly filled in. Where unit prices are to be bid, and/or where bids are to be made on more than one item, the Bidder shall extend the unit price(s) bid in the places provided on the pricing pages for the approximate quantities, shall compute the total amount of the bid and shall indicate same on the proposal pricing page. The Bidder must bid in accordance with the unit(s) of measure called for. If an item is listed by "each", the bid price must be entered by "each", not "dozen" or "hundred". Where unit prices are requested, the quantities stated are approximate only.

The quantities for all items on which bids are to be received on a unit price basis, will not be used in establishing final payment due the Contractor.

Bids will be compared on the basis of number of units stated in the Schedule of Prices. Contract payment for unit price items will be based on the actual number of units installed in the completed work within the proposed scope of work. A bid may be rejected if it does not contain a unit price for each and every item named in the Schedule of Prices. Bidders are advised to verify their bid pricing prior to submission of their bid. Price changes shall not be allowed once the bid has been

opened. Bidders are cautioned not to qualify their bids. Bids that are qualified shall be rejected.

All extensions and total sums are subject to verification by the County and the correct extensions and sums will be used in the comparison of bids. If a discrepancy exists between the unit prices and totals, the unit prices shall prevail. If a discrepancy exists between the total base bid and the true sum of the individual bid items, the true sum shall prevail.

In certain cases, amounts are to be shown in both words and figures. When discrepancies occur between the "Written in Words" and the "In Figures" amounts, the "Written in Words" shall govern. Bidders are warned against making any erasures or alterations of any kind, and bids, that contain omissions, erasures, conditions, alterations, or additions not called for may be rejected. The bidder must fill in all blanks. Use "N/A" or "None" where applicable.

8. BID SECURITY

If required, each bid must be accompanied by a bid security in the form of cash (U.S. currency only), cashier's or certified check(s), money order or bid bond in the amount(s) specified in the Invitation to Bid. Each check must be drawn on a responsible bank or savings and loan association and shall be made payable to the DuPage County Treasurer. Each bid bond must be underwritten by a surety licensed to do business in the State of Illinois, have the minimum equivalent of a Best and Company A-5 rating and be approved by the County.

The bid security submitted in accordance with the requirement stated in the Invitation to Bid entitles the bidder to submit a bid. Any bid submitted without being accompanied by the required bid deposit will not be considered and will not be read after it is publicly opened.

The bid security is a guarantee that if the bid is accepted, the bidder will execute the Agreement and file bonds and insurance as required by the Contract Documents within fifteen (15) days after the date of the conditional award of the contract. Failure of a successful bidder to execute the Agreement and file required bonds and insurance within the required time shall be considered abandonment of the award. On failure of a successful bidder to execute the Agreement and file the required bonds and insurance within the required time, its bid security shall be forfeited. Upon abandonment of an award, the County may then award a Contract to the next lowest responsive, responsible bidder.

9. SIGNING OF BID

If the Bidder is a corporation, the legal name of the corporation shall be set forth together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation. If the Bidder is a partnership,

the true name of the firm shall be set forth together with the signature of a partner authorized to sign contracts on behalf of the partnership. If the Bidder is an individual, his/her signature shall be inscribed. If signature is by an agent other than an officer of a corporation or a member of a partnership, a copy of the resolution granting the individual executing the contract documents authority to do so shall be provided with the bid. The signature set forth on the bid form shall be notarized where indicated.

10. RETURN OF BID SECURITIES

The security of the three lowest bidders will be returned after the execution of the Agreement with the successful bidder and the approval of its bonds and insurance. The security of all other bidders will be returned promptly after the bids have been opened and reviewed by the County. If all bids are rejected then all securities will be returned at the time of rejection.

11. AGREEMENT, BONDS AND INSURANCE

The attention of bidders is specifically directed to the forms of Agreement and bonds to be executed and types of insurance to be taken out in the event a contract award is made.

12. DESIGNATION OF SUBCONTRACTORS

If applicable, Bidders shall list on the form included in the Bidding Documents the names and addresses of all subcontractors who will perform work or labor or render service to the bidder on or about the construction site in an amount in excess of ten percent (10%) of the bidders' total base bid. Bidders shall show on the form the portion of the work to be performed by each subcontractor. Changes to this list will be allowed after Notice of Award of the Contract, only with the written approval of the County.

13. SUBMISSION OF BIDS, NO BIDS:

All bids must be received in sealed envelopes that have (1) the Bidders name and address in the UPPER left corner, (2) the bottom portion of the attached label filled in and pasted on the LOWER left corner.

Bids mailed "EXPRESS MAIL" must have bid number and due date on the outside of the EXPRESS MAIL envelope.

The Bidder shall be responsible for delivery of bids to the Procurement Division on or before the date and hour set for the opening of bids. Late bids will not be considered and will be returned unopened. Bids will be opened and the prices will be read aloud publicly at the time and place indicated in the Invitation to Bid. Bidders or their agents are invited to be present.

If your firm declines to bid on this invitation, but desires to remain on the County's Bidders List for future invitations, please submit in a sealed envelope a letter stating why you are declining to bid. Mark envelope "NO BID" and attach label to the front of the envelope; return no later than the bid opening date specified.

14. WITHDRAWAL OF BID

A bid may be withdrawn at any time prior to the date and time stated in the Invitation to Bid for the bid opening, provided that a request in writing, executed by the bidder, or its duly authorized representative, for the withdrawal of such bid is filed with the County prior to the date and time specified for opening of bids. Such withdrawal of a bid will not prejudice the right of a bidder to file a new bid prior to the specified bid opening date and time. Bids may not be withdrawn or rescinded after the bid opening. Bids that are withdrawn or rescinded after the bid opening may be subject to forfeiture of their bid security.

15. QUALIFICATION OF BIDDERS

It is the intention of the County to award a contract only to a bidder who furnishes satisfactory evidence that it has the requisite experience and ability and sufficient capital, facilities, and plant to prosecute the work successfully and promptly, and to complete the work within the time specified in the Contract Documents.

Bidders shall indicate their qualifications (experience and references) on the form contained in the Bidding Documents and shall submit the completed form with their bids.

16. DISQUALIFICATION OF BIDDERS

More than one bid for the same work described in the Bidding Documents from an individual, firm or partnership, a corporation or an association under the same or different names, will not be considered. Reasonable grounds for believing that any bidder is interested in more than one bid for the work contemplated will cause the rejection of all bids in which such bidder is interested. If there are reasonable grounds for believing that collusion exists among the bidders, the bids of the participants reasonably believed to be involved will not be considered.

17. PENALTY FOR COLLUSION

If at any time it shall be found that the person, firm, or corporation to whom the Contract has been awarded has, in presenting any bid or bids, colluded with any other part or parties, then the Contract so awarded shall be null and void, and Contractor and its sureties shall be liable to the County for all loss or damage which the County may suffer thereby, and the County may advertise for new bids for said work.

18. LICENSE

The bidder to whom the Contract is awarded shall possess state and local licenses as are required by law, and shall furnish satisfactory proof to the County upon request that the licenses are in effect during the entire period of Contract.

19. WAGE RATE REQUIREMENTS

Contractor shall adhere to the prevailing wage rate determinations made by state and local authorities for

this project. Bidder and each Subcontractor engaged by Bidder to perform any portion of the Work shall pay not less than the general prevailing rate of hourly wages for Work of a similar character in the locality in which the work is to be performed, and not less than the general prevailing rate of hourly wages for legal holidays and overtime Work in the performance of the work, as established by the Illinois Department of Labor, pursuant to an act of the General Assembly of the State of Illinois approved June 26, 1941 as amended according to the Illinois Compiled Statutes, 820, ILCS, 130/1, *et seq.*

In compliance with the requirements of Illinois Compiled Statutes, 820, ILCS, 130/5, Bidder and each Subcontractor engaged by Bidder to perform a portion of the Work shall keep an accurate record showing the name and occupation of all laborers, workers, and mechanics employed by them, and also showing the actual hourly wages paid to each such individual, which record shall be open at all reasonable hours for inspection by the County, its duly authorized officers and agents, and the agents of the Illinois Department of Labor.

20. ANTI-DISCRIMINATION

Bidder will comply with the provisions of the "Human Rights Act" (Illinois Compiled Statutes, 775, ILCS, 5/1, *et seq.*) and "An Act to prohibit discrimination and intimidation on account of race, creed, color, sex or national origin in employment under contracts for public buildings or public works" (Illinois Compiled Statutes, 820, ILCS, 10/1, *et seq.*).

21. LOBBYIST REGISTRATION

Where applicable, bidder shall comply with the provisions of Chapter 2, Article X, Section 2-716, Lobbyist Registration, of the Code of DuPage County, Illinois.

22. AWARD OF CONTRACT

The award of any contract will be made to the lowest responsive, responsible bidder. The County reserves the right to reject any or all non-conforming, non-responsive, unbalanced or conditioned bids, and to reject the bid of any bidder if the County believes that it would not be in the best interest of the County to make an award to that bidder. The County reserves the right or to waive irregularities or informalities at its discretion. The County also has the right to award a contract with the deletion or reduction of any item or items without any claim by the bidder for increased overhead or loss of profit.

23. EFFECTIVE DATE OF AWARD

If a Contract is awarded by the County, such award shall be effective when the formal Notice of Award, signed by the authorized representative of the County, has been delivered to the intended awardee, or mailed to the main business address shown on its bid, by an officer or agent of the County authorized to give such notice.

24. EXECUTION OF AGREEMENT

Four (4) counterpart originals of the Agreement will be supplied by the County and shall be executed by the successful bidder, and returned, together with the required bonds and insurance, within fifteen (15) calendar days from and after the date of the award of the Contract. Effective date of bonds shall be same as the date of the Agreement.

25. GRANT FUNDING

A portion or all of the above work may be subject to Illinois First Grant Funding. Section 5.4A of the Grant Agreement between the Illinois Department of Commerce and Community Affairs and DuPage County states:

"If any of the services to be performed under this Agreement are subcontracted, the Grantee shall include in all subcontracts covering such services, a provision that the Department and the Auditor General of the State of Illinois, or any of their duly authorized representatives, will have full access to and the right to examine any pertinent books, documents, papers and records of any such subcontractor involving transactions related to this Agreement for a period of five (5) years from the later of the expiration or termination of this Agreement."

In effect, the State requires that your firm and any subcontractors agree to make available for examination, your financial records covering services in conjunction with the construction of the above project for a five-year period.

26. VENDOR ETHICS DISCLOSURE

On January 12, 2010, the DuPage County Board adopted amendments to Ordinance OFI-003B-04, the DuPage County Ethics Ordinance.

Section 2-417 "Contractor Disclosure", requires that certain information be provided by vendors who contract with or are seeking to contract with the County to provide goods or services. All requisitions and change orders require that the vendor provide the most current information as detailed on the "Vendor Ethics Disclosure Statement" form.

The Vendor Ethics Disclosure Statement and instructions can be found in the bid documents (www.dupageco.org) and on the County's Internet site under Contractor Forms in the Procurement section. The most current version of the form should always be utilized. There is also another form for additional pages; all pages are Adobe fillable forms.

Continuing Disclosure: It is the contractor/vendor's responsibility to update contribution information on an ongoing basis during the life of the contract. The vendor is required to submit an updated Ethics Disclosure Statement to the user department, any time contributions are made to the Chairman or County Board Members subsequent to the most recent authorized contract action.

Failure to Comply: Failure to provide the requested information will at minimum delay awarding of the contract and could result in the selected vendor being disqualified as non-responsive and non-responsible.

Providing fraudulent information on the Vendor Ethics Disclosure Statement may result in a Class 3 Felony.

Contribution: A gift, subscription, dues, loan, advance or deposit of money or anything of value, including services, knowingly received in connection with the nomination for election or election of any person to County office.

Gift: Any gratuity, discount, entertainment, hospitality, loan, forbearance, or other tangible or intangible item having a fair cash market value including but not limited to cash, food, drink.

Multi-year contracts: Those contracts with a duration greater than 12 months, require annual updates, to be filed by the vendor with the user department, and forwarded to Procurement. The reporting period should be through December 31st of the current year, and received by the user department with 10 business days of that date.

Prohibited Source: Any person or entity who (i) is seeking official action by the Chairman, County Board member or in the case of an employee, by the employee or by the Chairman or County Board member, or another employee directing that employee; (ii) does business or seeks to do business with the Chairman, County Board member or employee (iii) conducts activities regulated by the Chairman, County Board member or employee (iv) has interests that may be substantially affected by the performance or non-performance of the official duties of the Chairman, County Board member or employee (v) is registered or required to be registered with the Secretary of State under the Lobbyist Registration Act or the DuPage County Lobbyist Registration Act, except that an entity not otherwise a prohibited source does not become a prohibited source merely because a registered lobbyist is one of its member or serves on its board of directors (vi) is a Political Action Committee to which a prohibited source has contributed.

END OF INSTRUCTIONS TO BIDDERS

COUNTY OF DuPAGE, ILLINOIS
CAMPUS BUILDING MANAGEMENT SYSTEM UPGRADE
BID # 11-054
BID FORM

(PLEASE TYPE OR PRINT THE FOLLOWING INFORMATION)

Full Name of Bidder			
Main Business Address			
City, State, Zip Code			
Telephone Number		Fax Number	
Bid Contact Person			

TO: The DuPage County Purchasing Division
The undersigned, being duly sworn, certifies that he is:

the Owner/Sole Proprietor a Member of the Partnership an Officer of the Corporation a Member of the Joint Venture

herein after called the Bidder and that the members of the Partnership or Officers of the Corporation are as follows:

(President or Partner)

(Vice-President or Partner)

(Secretary or Partner)

(Treasurer or Partner)

Further, as Contractor, declares that the only person or parties interested in this bid as principals are those named herein; that this bid is made without collusion with any other person, firm or corporation; that he has fully examined the proposed forms of agreement and the contract specifications for the above designated purchase, all of which are on file in the office of the Purchasing Manager, DuPage Center, 421 North County Farm Road, Wheaton, Illinois 60187, and all other documents referred to or mentioned in the contract documents, specifications and attached exhibits, including Addenda No. _____, _____, _____, and _____ issued thereto;

Further, the Contractor proposes and agrees, if this bid is accepted, to provide all necessary machinery, tools, apparatus and other means of construction, including transportation services necessary to furnish all the materials and equipment specified or referred to in the contract documents in the manner and time therein prescribed.

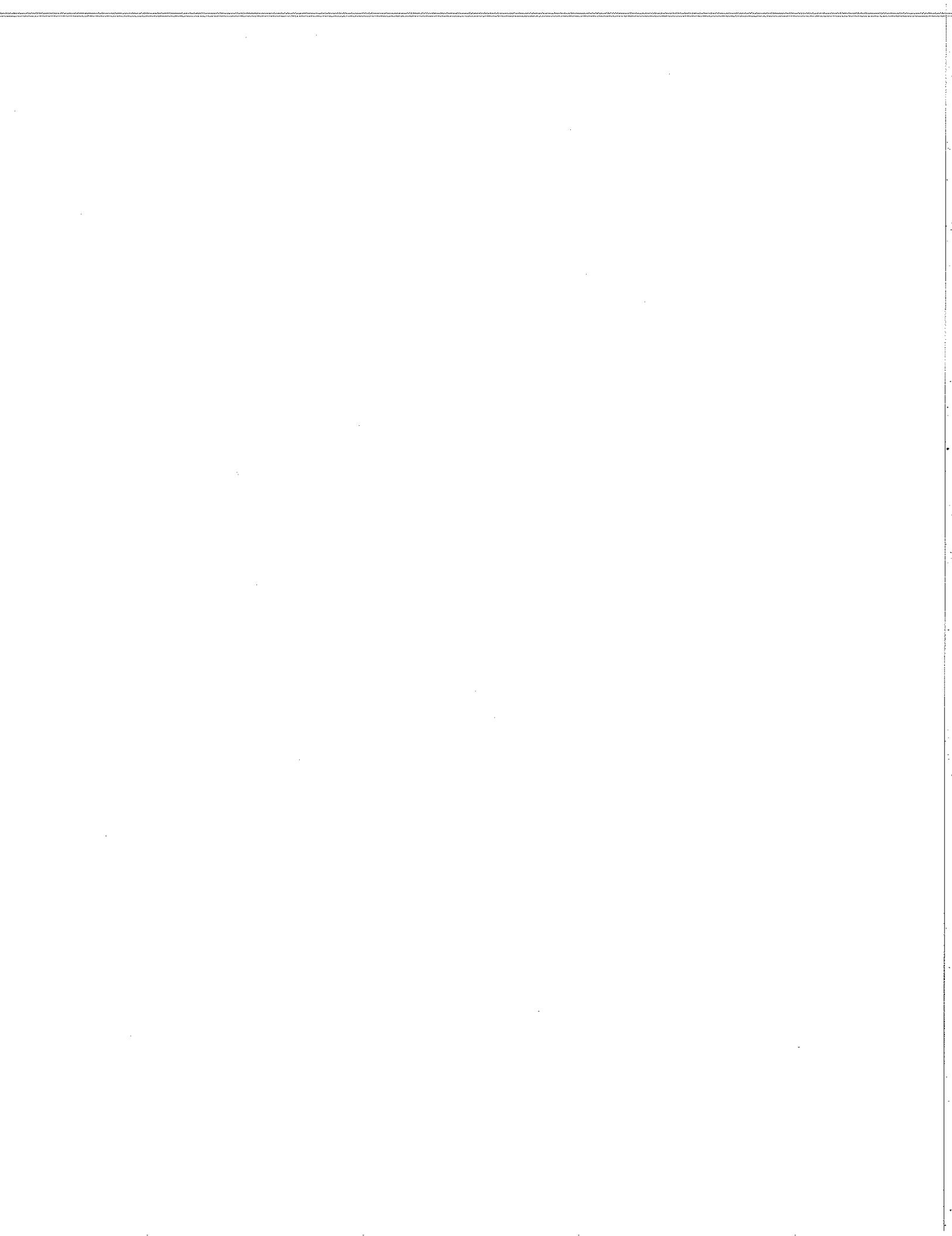
Further, the undersigned certifies and warrants that he is duly authorized to execute this certification/affidavit on behalf of the Bidder and in accordance with the Partnership Agreement or by-laws of the Corporation, and the laws of the State of Illinois and that this Certification is binding upon the Bidder and is true and accurate. Further, the undersigned certifies that the Bidder is not barred from bidding on this contract as a result of a violation of either 720 Illinois Compiled Statutes 5/33 E-3 or 5/33E-4, bid rigging or bid-rotating.

The affiant deposes and says that he has examined and carefully prepared this bid and has checked the same in detail before submitting this bid, and that the statements contained herein are true and correct.

If a Corporation, the undersigned further certifies that the recitals and resolutions attached hereto and made a part hereof were properly adopted by the Board of Directors of the Corporation at a meeting of said Board of Directors duly called and held and have not been repealed, nor modified and that the same remain in full force and effect. *(Attach a copy of the corporate resolution granting the individual executing the contract documents authority to do so.)*

Finally, the Contractor agrees to do all other things required of the Contractor by the contract documents, and that he will take in full payment therefore the sums set forth in the bidding schedule.

Signature of Bidder authorizes the County of DuPage to verify business references.



COUNTY OF DuPAGE, ILLINOIS
CAMPUS BUILDING MANAGEMENT SYSTEM UPGRADE
BID #11-054
BID FORM

ITEM #	BUILDING	PRICE
1	JUDICIAL OFFICE FACILITY	
2	JAIL	
3	POWER PLANT	
4	JUVENILE DETENTION FACILITY/ANIMAL SHELTER	
5	CONVALESCENT CENTER	
6	421 ADMINISTRATION BUILDING	
7	CORONER	
8	HIGHWAY GARAGE	
9	JOF ANNEX	
10	SHERIFF'S OFFICE	
11	D.O.T. NEW MAINTENANCE FACILITY	\$
		GRAND TOTAL \$

TOTAL BID-ITEMS 1 THROUGH 11 _____

(Amount Written in Words)

_____ Dollars and _____ Cents \$ _____
 (Amount Written in Words) (Amount in Figures)

BASIS OF AWARD:

Contract will be awarded to lowest responsive, responsible bidder based upon the lowest Total Bid. The County of DuPage reserves the right to increase or decrease the quantities and eliminate items shown herein to correspond with Departmental budgetary allowances; the actual Contract award amount will be determined by the County based upon the items selected.

STARTING AND COMPLETION:

If awarded a contract under this bid, the contractor shall commence work within ten (10) calendar days after receipt from the County of a formal Notice to Proceed. All work shall be completed within ninety (90) days from the date of receipt of Notice to Proceed unless otherwise extended by mutual agreement.

X

(Signature and Title)

CORPORATE SEAL

(If available)

BID MUST BE SIGNED FOR CONSIDERATION

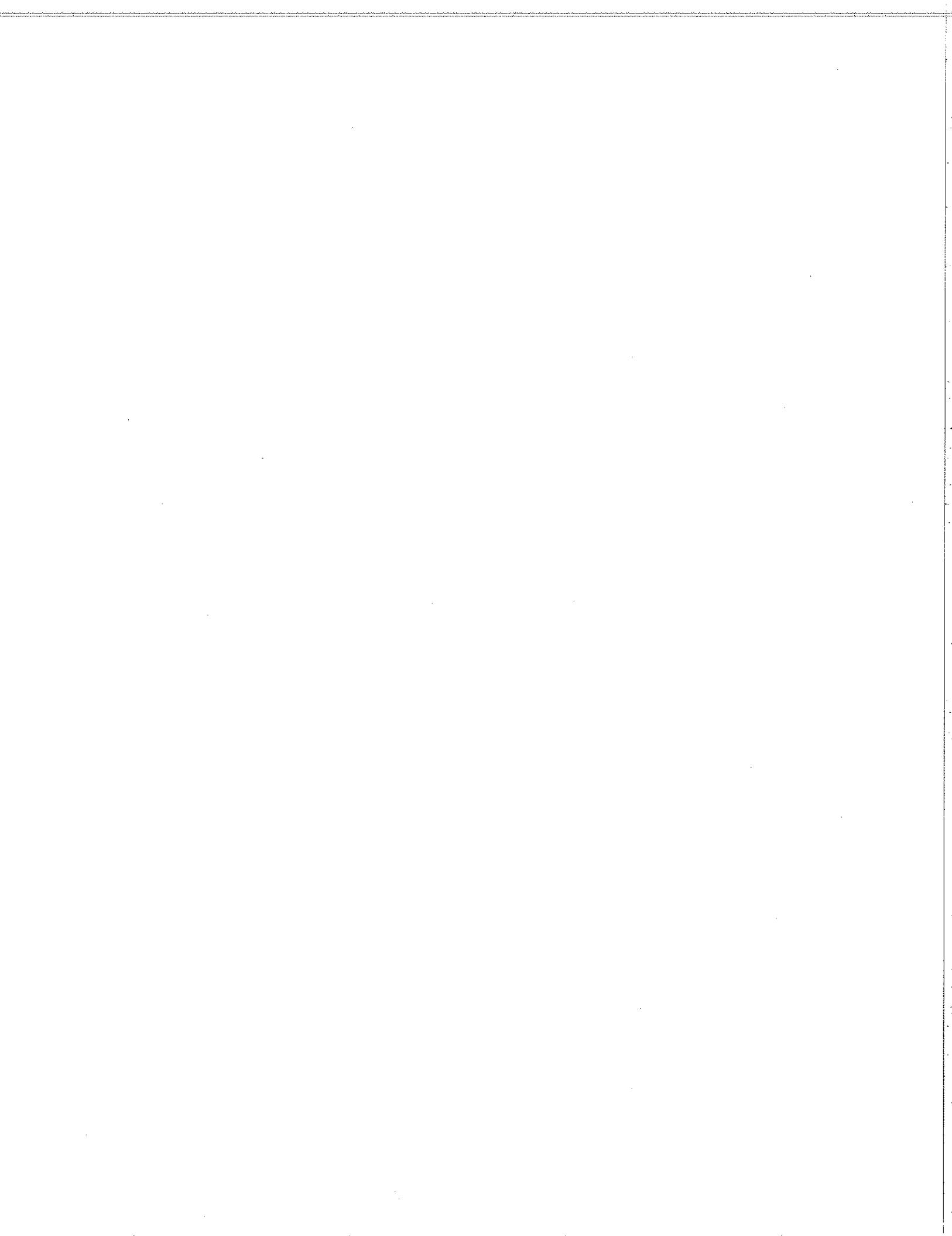
THIS BID FORM MUST BE FILLED OUT, SIGNED BY THE BIDDER AND PROPERLY NOTARIZED.

Subscribed and Sworn to before me this _____ day of _____ AD, 20_____

My Commission Expires: _____

(Notary Public)

The Ethics Disclosure Statement on the following page must be filled out and signed by the bidder.
Signature of Bidder authorizes the County of DuPage to verify business references.





Required Vendor Ethics Disclosure Statement

Company Name:			
Company Contact:		Contact Phone:	
Bid/Contract/ PO:			

For this Disclosure "I/ me" or "you" shall mean the business entity seeking a contract or to whom a contract has been awarded. Those terms include any of the business' principals, family members of the business' principals (father, mother, son, daughter, brother, sister, uncle, aunt, husband, wife, father-in-law, mother-in-law, son-in-law, daughter-in-law, brother-in-law, stepfather, stepmother, stepson, stepdaughter, stepbrother, and stepsister) and any other legal entities in which those principals or family members have a controlling interest or have control over the disbursement of funds of the business.

A. The County Ethics Ordinance (viewable at http://www.dupageco.org/emplibrary/OFI003B04_Ethics_FINAL.pdf), Section 2-402-1, bans all gifts (except those listed in Section 2-403 from prohibited sources).

I certify that I have not made a prohibited gift to the Chairman or any County Board Member or any County employee, or to the spouse or family member of any of them.

B. The County Ethics Ordinance (viewable at http://www.dupageco.org/emplibrary/OFI003B04_Ethics_FINAL.pdf), Section 2-402-2, prohibits County officials from soliciting or accepting campaign contributions in the cumulative amount of more than \$1,000 per calendar year.

I have made the following campaign contributions within the last twelve months: (Reporting begins with contributions made on or after 1/12/10.)

Recipient	Donor	Description (e.g., cash, type of item, in-kind service, etc.)	Amount/Value	Date Made

Attach additional sheets if necessary. Sign each added sheet and number each page __ (#) of __ (total pages).

C. I understand that making a false or incomplete statement on this disclosure may render me a non-responsive and disqualified offeror, or result in the voiding of any contract awarded to me by the County, and may subject me to statutory criminal penalties (720 ILCS 5/33E-14).

D. Continuing disclosure is required, and I agree to update this disclosure form as follows:

- If information changes, within five (5) days of change, or prior to County action, whichever is sooner
- 30 days prior to the optional renewal of any contract
- Annual disclosure for multi-year contracts
- With any request for change order except those issued by the County for administrative adjustments.

Failure to complete and return this form may result in delay or cancellation of the County's Contractual Obligation.

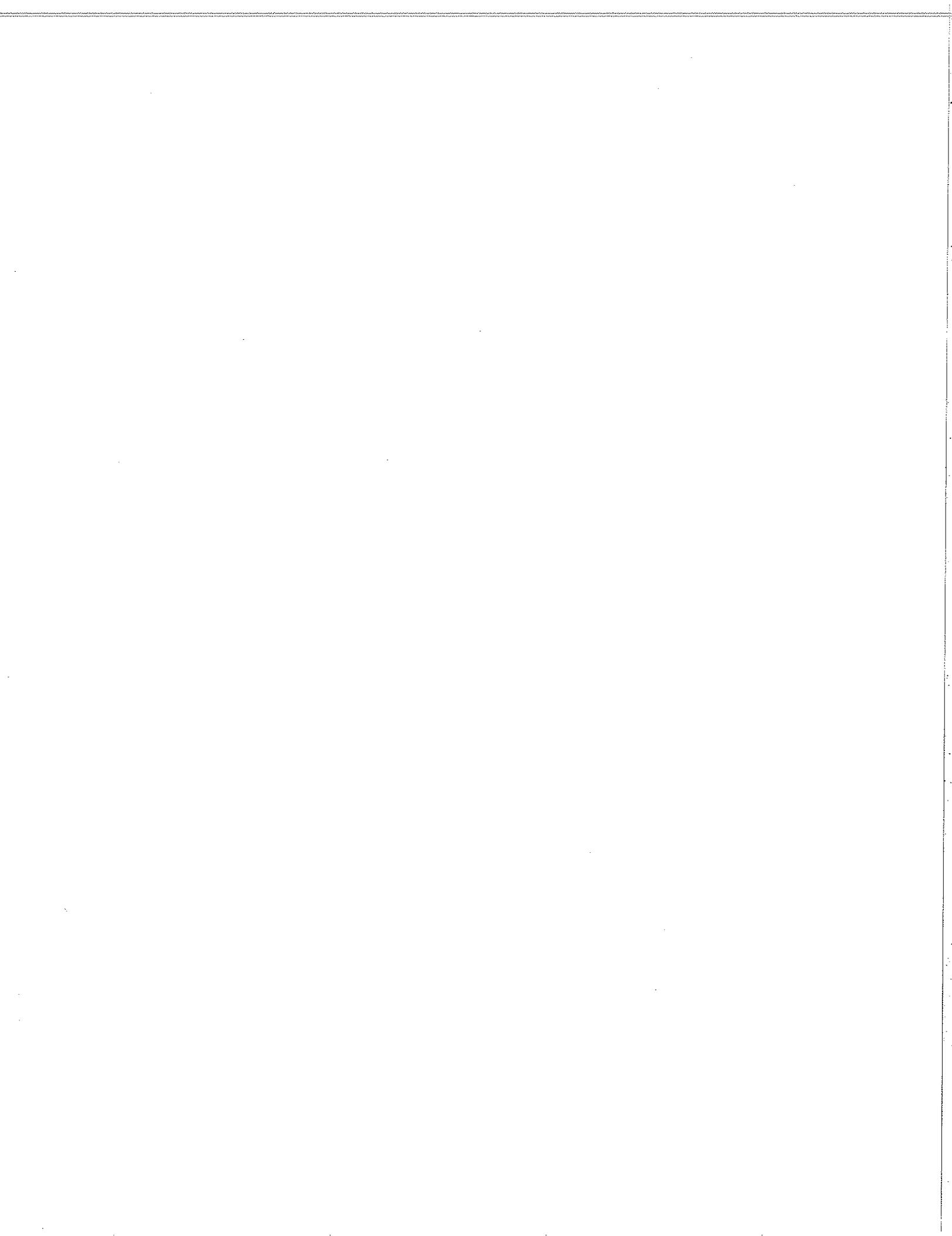
Authorized Signature

Printed Name

Title

Date

Page 1 of



COUNTY OF DuPAGE, ILLINOIS
CAMPUS BUILDING MANAGEMENT SYSTEM UPGRADE
BID # 11-054
REFERENCES

The bidder must list four (4) references, listing firm name, address, telephone number and contact person to whom they have provided similar equipment, material or services for a period of not less than six (6) months.

The bidder verifies that they have provided equipment or supplies to that contained in this contract to the following parties with needs similar to that of County of DuPage and authorizes the County to verify references of business and credit at its option.

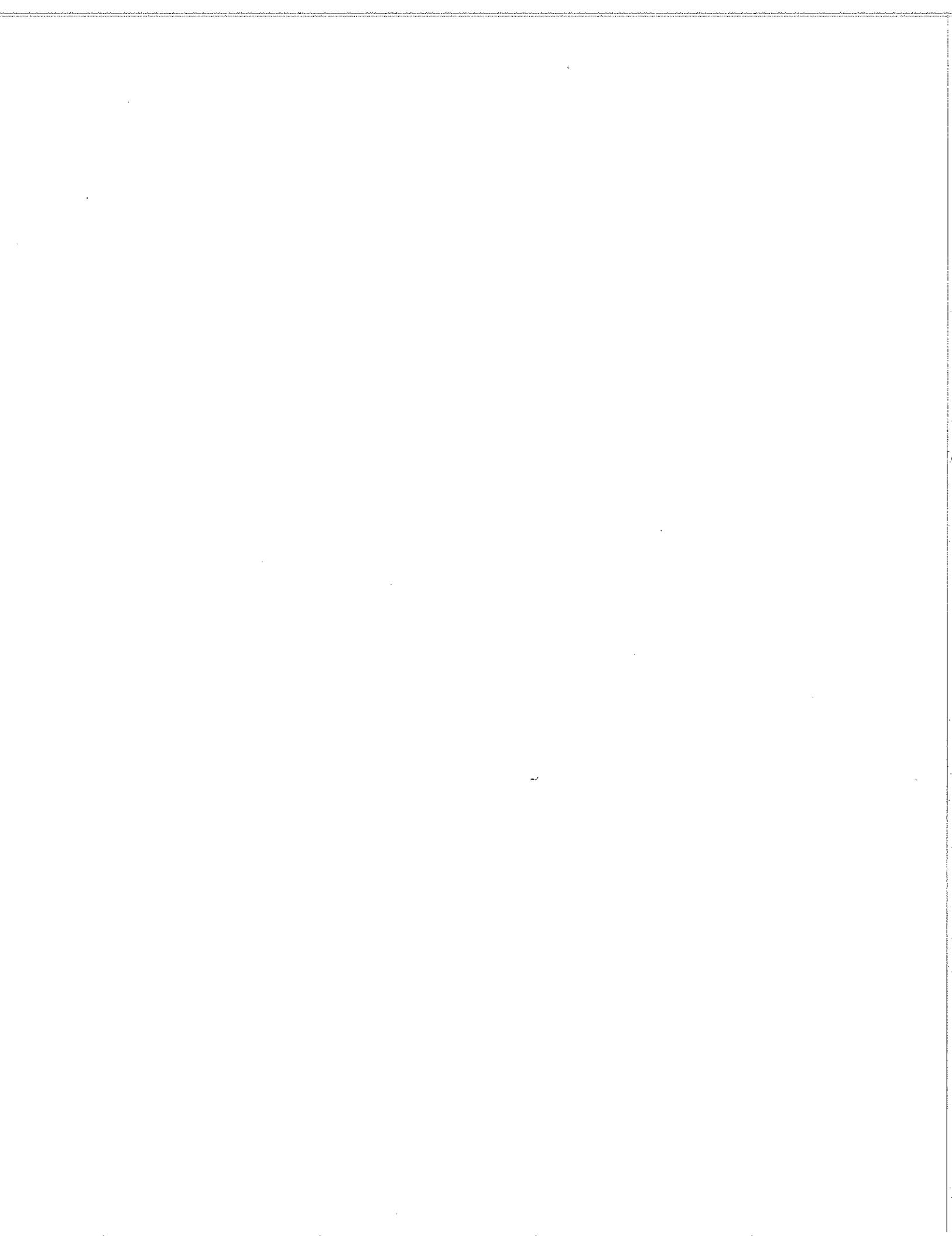
COMPANY NAME:	
ADDRESS:	
CITY, STATE & ZIP CODE	
CONTACT PERSON:	
TELEPHONE NUMBER:	

COMPANY NAME:	
ADDRESS:	
CITY, STATE & ZIP CODE	
CONTACT PERSON:	
TELEPHONE NUMBER:	

COMPANY NAME:	
ADDRESS:	
CITY, STATE & ZIP CODE	
CONTACT PERSON:	
TELEPHONE NUMBER:	

COMPANY NAME:	
ADDRESS:	
CITY, STATE & ZIP CODE	
CONTACT PERSON:	
TELEPHONE NUMBER:	

State the number of years in business _____ State the current number of personnel on staff _____



COUNTY OF DuPAGE, ILLINOIS

CAMPUS BUILDING AUTOMATION SYSTEM UPGRADE

BID # 11-054

REFERENCES

The bidder must list four (4) references, listing firm name, address, telephone number and contact person to whom they have provided similar equipment, material or services for a period of not less than six (6) months.

The bidder verifies that they have provided equipment or supplies to that contained in this contract to the following parties with needs similar to that of County of DuPage and authorizes the County to verify references of business and credit at its option.

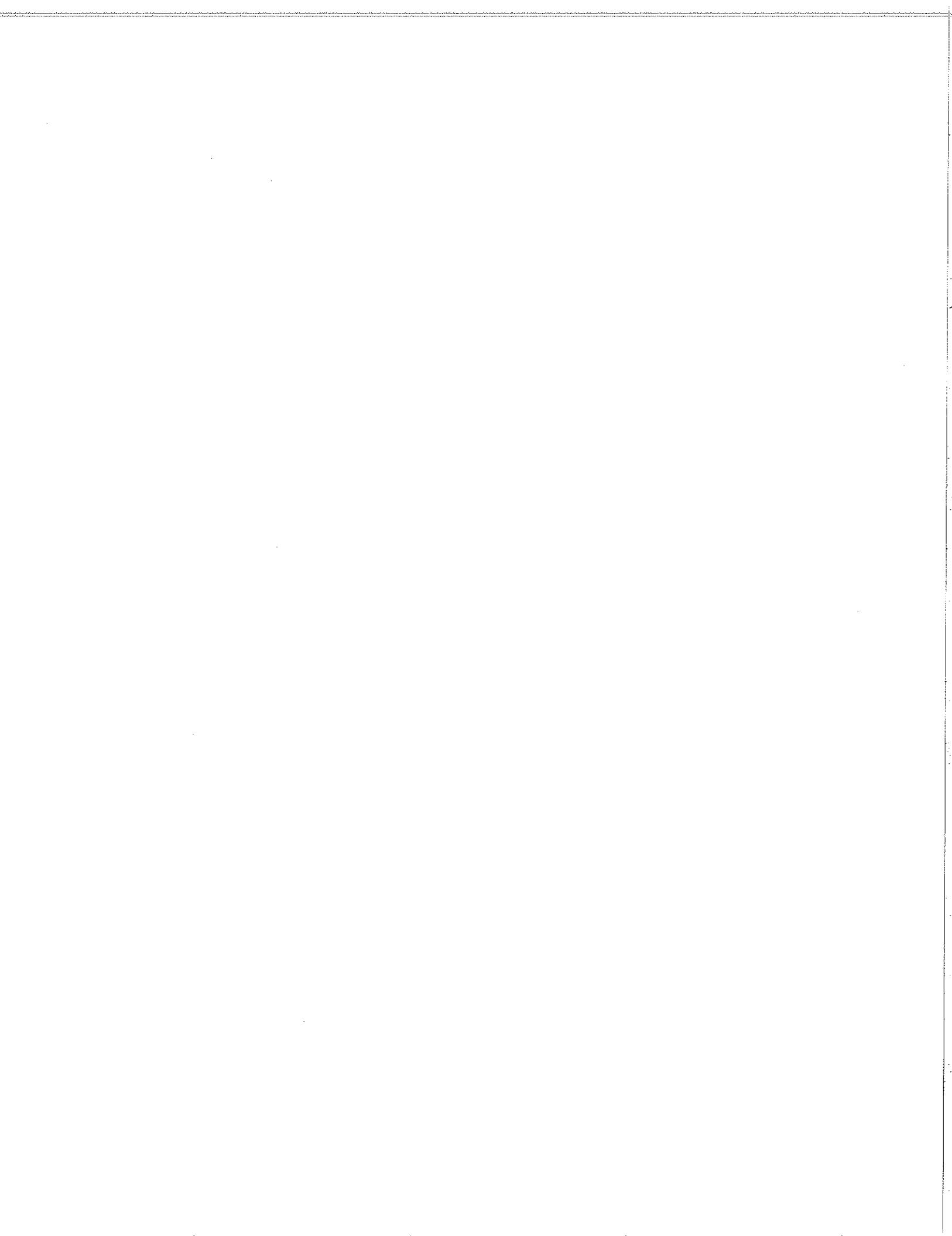
COMPANY NAME:	
ADDRESS:	
CITY, STATE & ZIP CODE	
CONTACT PERSON:	
TELEPHONE NUMBER:	

COMPANY NAME:	
ADDRESS:	
CITY, STATE & ZIP CODE	
CONTACT PERSON:	
TELEPHONE NUMBER:	

COMPANY NAME:	
ADDRESS:	
CITY, STATE & ZIP CODE	
CONTACT PERSON:	
TELEPHONE NUMBER:	

COMPANY NAME:	
ADDRESS:	
CITY, STATE & ZIP CODE	
CONTACT PERSON:	
TELEPHONE NUMBER:	

State the number of years in business _____ State the current number of personnel on staff _____



DuPAGE COUNTY, ILLINOIS

AGREEMENT

PROJECT NAME: _____

THIS AGREEMENT, made this _____ day of _____, 20____, by and between DuPage County, Illinois, hereinafter called "County" or "Owner" and _____ hereinafter called "Contractor".

WITNESSETH:

WHEREAS, the County has heretofore solicited bids for all work and improvements and for the doing of all things included within the specified project; and

WHEREAS, the County did on the _____ day of _____, 20____, find that the Contractor was the lowest responsive, responsible bidder for hereinafter specified work and did award the Contractor a contract for said work.

NOW, THEREFORE, for and in consideration of their mutual promises, covenants, undertaking and agreements, the parties hereto do hereby agree as follows:

ARTICLE I- Work To Be Done By Contractor

For and in consideration of the payments indicated in the Bid hereto attached, the Contractor shall at its own cost and expense perform all the work and furnish all the labor, material, equipment and other property necessary to do, construct, install, and complete all the work and improvements required, all in full accordance with and in compliance with and as required by the hereinafter specified contract Documents, including any and all Addenda for said work, and to do all other things required of the contractor by said contract Documents for said work.

ARTICLE II- Contract Documents

The contract Documents here named include all of the following component parts, all of which are as fully a part of this contract as if herein set out verbatim, or if not attached, as if hereto attached:

1. Invitation for Bids
2. Instructions to Bidders
3. Bid Form/Signature
4. General Conditions of Contract
5. Agreement (This instrument)
6. Contract Drawings
7. Contract Specifications
8. Contract Special/Supplemental Conditions
9. All Bonds mentioned or referred to in the foregoing Documents
10. Any and all other Documents or Papers included or referred to in the foregoing Documents
11. Any and all Addenda to the foregoing: Nos. __, __, __, and _____

all of which documents are on file in the Office of the Procurement Manager, DuPage County Center, 421 North County Farm Road, Wheaton, Illinois 60187.

ARTICLE III-Contract Prices, Contract Sum and Payment

County shall pay to Contractor in current funds for the performance of the Work, subject to additions and deductions effected by Change Orders, the separate Contract Prices as stated in the bid proposal, not to exceed the total base bid contract sum, namely: _____

Dollars and _____ Cents \$ _____

In addition, the County shall pay to Contractor in current funds for providing Additional Items, over and above the base bid, as Ordered by the Engineer/Facilities Manager (County) in accordance with the prices stated in the bid proposal, not to exceed the total Items as Ordered by the County, namely:

Dollars and _____

Cents \$ _____

The Contract Price aforesaid constitutes the Contract Sum.

ARTICLE IV-Payment

The contractor shall receive and accept payments indicated in its Bid as full compensation or furnishing all materials and equipment and for doing all the work contemplated and embraced in this Agreement; also for all loss or damage arising out of the nature of the work aforesaid, or from the action of the elements, or from any unforeseen difficulties or obstructions which may arise or be encountered in the prosecution of the work until its acceptance by the County, and for all risks of every description connected with the work, and the whole thereof, in the manner and according to and in compliance with the Contract Documents and the requirements of the Engineer under them; also for any and all other things required by the Contract Documents. The Contractor is required to adhere to the prevailing wage provisions of the State of Illinois for wage rates and conditions prevalent in DuPage County, Illinois.

Quantities and totals of unit price items in the contractor's Bid and the resulting total price are approximate only, and are for the purpose of establishing the face amount of bonds to be provided by the Contractor. Payment of work covered by unit price items will be made on the basis of actual quantities of work complete in place as authorized and as measured as provided in the Contract Documents. Where applicable, any or all items listed under ITEMS AS ORDERED BY ENGINEER/FACILITIES MANAGER will be directly requested by the Engineer/ Facilities Manager, in writing, prior to any items used. The County may choose not to use any or all of the items listed under ITEMS AS ORDERED BY ENGINEER/FACILITIES MANAGER.

ARTICLE V- Contract Enforcement - Attorney's Fees

If the County is required to take legal action to enforce performance of any of the terms, provisions, covenants and conditions of this Contract, and by reason thereof, the County is required to use the services of an attorney, then the County shall be entitled to reasonable attorney's fees and all expenses and costs incurred by the County pertaining thereto and in enforcement of any remedy, including costs and fees relating to any appeal.

ARTICLE VI - Severability Clause

If any section, paragraph, clause, phrase or portion of this Contract is for any reason determined by a court of competent jurisdiction to be invalid and unenforceable, such portion shall be deemed separate, distinct and an independent provision, and the court's determination shall not affect the validity or enforceability of the remaining portions of this Contract.

ARTICLE VII - Governing Law

This Contract shall be governed by the laws of the State of Illinois both as to interpretation and enforcement.

ARTICLE VIII-Conflict Between Component Parts of Contract

In the event that any provision in any of the following component parts of this contract conflicts with any provision in any other of the following component parts, the provision in the component part first enumerated below shall govern over any other component part which follows it numerically except as may be otherwise specifically stated. Said component parts are the following:

1. Addendum Nos. __, __, __, and __
2. Special/Supplemental Conditions
3. General Conditions of the Contract
4. Contract Specifications
5. Contract Drawings
6. Instructions to Bidders
7. Invitation for Bids
8. Bid Form
9. This Instrument

This Contract is intended to conform in all respects to applicable regulation, laws, ordinances, and statutes of the State of Illinois and governmental unit in which the work is to be constructed, and if any part or provision of this Contract conflicts therewith the said statute shall govern.

ARTICLE IX-Starting and Completion

The contractor shall substantially complete (as defined in the General conditions) **all of the work on the above cited project in accordance with the agreed upon completion date.** The contractor shall furnish and deliver to the county all things which are required of it by the Bidding Documents prior to the County's issuing a Notice to Proceed.

All work covered under this agreement shall be substantially completed by the agreed upon completion date of _____.

ARTICLE X-Commitment

The County does hereby employ the said contractor to provide the materials and do all the work and do all other things hereinbefore mentioned according to the terms and conditions hereinabove contained or referred to for the prices aforesaid and hereby contracts to pay the same at the time, in the manner and upon the conditions set forth or referred to in the Contract Documents; and the said parties for themselves, their heirs, executors, administrators, successors and assigns do hereby agree to the full performance of the covenants herein contained.

ARTICLE XI-Grant Funding

A portion or all of the above work may be subject to Illinois First Grant Funding. Section 5.4A of the Grant Agreement between the Illinois Department of Commerce and Community Affairs and DuPage County states:

“If any of the services to be performed under this Agreement are subcontracted, the Grantee shall include in all subcontracts covering such services, a provision that the Department and the Auditor General of the State of Illinois, or any of their duly authorized representatives, will have full access to and the right to examine any pertinent books, documents, papers and records of any such subcontractor involving transactions related to this Agreement for a period of five (5) years from the later of the expiration or termination of this Agreement.”

In effect, the State requires that your firm and any sub-contractors agree to make available for examination, your financial records covering services in conjunction with the construction of the above project for a five-year period.

END OF AGREEMENT ARTICLES

IN WITNESS WHEREOF, the parties of these presents have hereunto set their hands and affixed their seals, the day and year first above written.

Contractor Name _____

By _____ **(SEAL)**
(Signature of Officer)

Title _____

Date _____

Subscribed and Sworn to before me this _____ **day of** _____ **AD, 20** _____

(Notary Public) **My Commission Expires:** _____

County of DuPage, Illinois

By: _____ **Date:** _____
Procurement Services Supervisor

By this signature, the Procurement Services Supervisor affirms that all submittals required have been provided by the Contractor in accordance with the conditions of the bid document.

(SEAL)
By: _____
Chairman of the Board

Date: _____

ATTEST:

By: _____
County Clerk

Date: _____

IMPORTANT

Note: If the contractor is a corporation, the legal name of the corporation shall be set forth above, together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation; if contractor is a CO-partnership the true name of the firm shall be set forth above, together with the signatures of all partners; and if the contractor is an individual, his signature shall be placed above. If signature is by an agent other than an officer of a corporation or a member of a partnership, a power-of-attorney must be attached hereto.

Signature of Contractor shall also be acknowledged before a Notary Public or other person authorized by law to execute such acknowledgments.

COUNTY OF DuPAGE, ILLINOIS

GENERAL CONDITIONS OF THE CONTRACT

1. DEFINITIONS

Whenever and wherever used in these General Conditions or in the other Contract Documents, the following words and terms shall have the meanings indicated which are applicable to both the singular and plural thereof:

1.01 "As directed," "as permitted," "reviewed," "acceptable," "approved," or words of similar import mean the direction requirements, permission, approval or acceptance of Architect/Engineer, unless stated otherwise. These words shall not connote the Architect/Engineer having control or charge of and shall not be responsible for construction means, methods, techniques, sequences or procedures or for safety precautions and programs in connection with the Work; for the acts or omissions of the Contractor, subcontractors, or any other persons performing any of the Work; or for the failure of any them to carry out the Work in accordance with the Construction Contract Documents.

1.02 "As shown," "as indicated," "as detailed," or words of similar import refer to the Plans unless stated otherwise.

1.03 "Addenda" -- Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Contract Documents.

1.04 "Agreement" -- The written agreement between the Owner and Contractor covering the Work to be performed, together with all exhibits and schedules attached thereto and all statements, representations and agreements and documents which by reference thereto are made a part thereof.

1.05 "Application for Payment" and "Certificate for Payment."

1.051 "Application for Payment" -- means the form of request for payment which is to be used by the Contractor in requesting payment on account of a portion of the Contract Sum. A copy of the form of Application for Payment is contained in the Project Manual.

1.052 "Certificate for Payment" -- means the certificate issued by the Architect/Engineer and delivered to the Owner certifying that the Contractor is entitled to the payment of that portion of the Contract Sum specified in said certificate.

1.06 "Architect", "Engineer or Owner" -- DuPage County Facilities Management or its Designee. Also, see "Resident Engineer".

1.07 "Architect's/Engineer's Certificate for Final Payment of Contractor" - means the certificate issued by the Architect/Engineer and delivered to Owner certifying that the Contractor is entitled to receive final payment of the balance of the Contract Sum, including all retainage.

1.08 "Bid" and "Bidder"

1.081 "Bid" -- means an offer submitted on the bid form distributed to Bidders by the Owner, wherein: (i) Bidder offers to perform the Base Work, and the Alternate Work; (ii) Bidder specifies the separate Contract Prices to be paid to Bidder for the performance by Bidder of the Base Work and the various items of Alternate Work; (iii) Bidder specifies the amount of the increase or decrease of the Contract Price for the Base Work to be charged or allowed, as the case may be, by Bidder for the performance of the various portions of the Alternate Work. The word "Bid" also means and includes all documentation required by the Contract Documents to be submitted with the Bid, and all documentation required by the Contract Documents to be submitted subsequent to the submission of the Bid and prior to the issuance of the Notice of Award.

1.082 "Bidder" -- any person or legal entity that submits a Bid.

1.09 "Bid Opening Date" -- The latest date specified in the Notice to Bidders for the opening of bids.

1.10 "Bonds" -- Bid, performance, payment and defective materials bonds and other instruments of security required to be furnished pursuant to the provisions of the Contract Documents.

1.11 "Certification" -- Where references to the process of "certification" by the Architect/Engineer appear, it shall mean "recommendation".

1.111 "Certified Estimate For The Subsequent Month's Application For Payment" -- The best and most accurate forecast of the amount of money to be included in the subsequent month's Application for Payment.

1.12 "Change Order" -- A written order to the Contractor signed by the Owner and the Architect/Engineer authorizing an addition, deletion, or revision in the Work or an adjustment in the Contract

Sum or the Contract Time, and issued on or after the effective date of the Agreement.

1.13 "Contract Documents" and "Contract" -- The documents described in Section 1.2 of the Agreement. All of the Contract Documents collectively constitute the "Contract."

1.14 "Contract Price" and "Contract Sum."

1.141 "Contract Price" -- means the separate sum stated in the Bid and in the Agreement as being payable by the Owner to the Contractor for the Performance of a designated portion of the Work.

1.142 "Contract Sum" -- means the aggregate of the separate Contract Prices stated in the Agreement as being payable by the Owner to the Contractor for the performance of all Work to be performed by the Contractor.

1.15 "Contract Time" -- The number of days or the date stated in the Agreement for the completion of the Work.

1.16 "Contractor" -- The person, firm or corporation with whom the Owner has entered into the Agreement.

1.17 "Contractor's Certificate of Final Completion" -- means the certificate issued by the Contractor and delivered to the Owner and the Architect/Engineer jointly, certifying that Contractor has completed the Work, including all "punchlist" items, in accordance with the requirements of the Contract Documents, including, but not limited to, the Plans, Specifications and Addenda. A specimen form of said certificate is included in the Project Manual.

1.18 "Day" -- A calendar day of twenty-four hours measured from midnight to the next midnight.

1.19 "Defective" -- An adjective which when modifying the word "Work" refers to Work that is unsatisfactory, faulty or deficient, or does not conform to the Contract Documents or does not meet the requirements of any inspection, reference, standard, test, or approval referred to in the Contract Documents, or has been damaged prior to the Architect's/Engineer's recommendation of final payment.

1.20 "Effective Date of the Agreement" -- The date indicated in the Agreement on which it becomes effective, but if no such date is indicated it means the date on which the Agreement is signed and delivered by the last of the parties to sign and deliver.

1.21 "Engineer" -- Owners Representative or authorized representative limited by the particular powers entrusted to that person or organization.

1.22 "Final Acceptance" -- means the condition which occurs when Owner has received the Contractor's Certificate of Final Completion and the Architect's/Engineer's Certificate for Final Payment of Contractor, and when Owner has issued and delivered to Architect/Engineer and Contractor jointly, the Owner's Statement of Final Acceptance.

1.23 "Final Completion" -- means the condition which exists when the Contractor has issued and delivered to Owner and Architect/Engineer/Engineer, Contractor's Certificate of Final Completion and the Architect/Engineer has issued and delivered to Owner, the Certificate for Final Payment of Contractor.

1.24 "General Conditions" -- This document and the terms and provisions thereof.

1.25 Not Applicable.

1.26 "Notice of Award" -- The written notice of the Owner to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions precedent enumerated therein, within the time specified, Owner will sign and deliver the Agreement.

1.27 "Notice to Proceed" -- The written notice given by the Owner to Contractor (with a copy to Architect/Engineer) fixing the date on which the Contract Time will commence to run, and on which Contractor shall start to perform Contractor's obligations under the Contract Documents.

1.28 Not Applicable.

1.29 "Owner" -- The County of DuPage, a corporate body politic of the State of Illinois.

1.30 "Owner's Statement of Final Acceptance" -- means a written statement issued by Owner and delivered to Contractor and the Architect/Engineer jointly, wherein Owner, in reliance upon the Contractor's Certificate of Final Completion and the Architect's/Engineer's Certificate for Final Payment of Contractor, accepts and assumes full possession of the Work subject, however, to the rights and remedies of Owner, both under the Contract Documents and at law and in equity with respect to concealed or latent defects in the Work.

1.31 "Plans" -- The drawings which show the character of the Work to be performed and which have been prepared by the Architect/Engineer and which are a part of the Contract Documents.

1.32 "Project" -- Described in Notice to Bidders, Section 2.

1.33 "Project Manual" -- means the bound volume which contains: (i) the Plans, the Specifications and the

General Conditions of the Contract which form a part of the Contract Documents; and (ii) a specimen of the form of various of the other Contract Documents. The Project Manual may also contain specimen forms of various other documents which, although not a part of the Contract Documents, are required to be executed and delivered either by Contractor, Architect/Engineer or Owner pursuant to the provisions of one or more of the Contract Documents.

1.34 "Provide" -- As used in the Specifications means to furnish and install.

1.35 "Resident Engineer" -- Owners representative or authorized representative who is assigned to the project limited by the particular powers entrusted to that person or organization.

1.36 "Shop Drawings" -- All drawings, diagrams, illustrations, schedules, samples and other data which are specifically prepared by or for the Contractor to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams, and other information prepared by a supplier and submitted by the Contractor to illustrate material or equipment for some portion of the Work.

1.37 "Specifications" -- Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards, and workmanship as applied to the Work and certain administrative details applicable thereto.

1.38 "Subcontractor" -- An individual, firm or corporation having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.

1.39 "Substantial Completion" -- means the Work has progressed to the point where, in the opinion of the Architect/Engineer as evidenced by his definitive Certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the Work can be utilized for the purpose for which it was intended.

1.40 "Supplemental Instructions" -- A written order issued by the Architect/Engineer/Engineer which orders minor changes in the Work but which does not involve a change in the Contract Price or the Contract Time.

1.41 "Supplier" -- A manufacturer, fabricator, supplier, distributor, material man, or vendor.

1.42 "Work," "Base Work," and "Alternate Work."

1.42.1 "Base Work" -- shall mean the furnishing of all labor, services, materials, equipment, machinery, tools, apparatus, utility and transportation services required for

the completion of construction of that portion of the Project which is separately identified and designated as the "Base Work" in the Plans, Specifications and Addenda.

1.42.2 "Alternate Work" -- shall mean work proposed by the Bidder in the Bid which if performed by Bidder will constitute a change in either the scope of the Base Work or in products, materials, equipment, systems or construction or installation methods described in the Contract Documents.

1.42.3 "Work" -- Shall mean and include the Base Work and all such Alternate Work designated and included in the Agreement.

1.43 "Written Interpretations" -- Issued by the Architect/Engineer.

2. CONTRACT DOCUMENTS

2.01 General

The Contract Documents are the documents described in Article II of the Agreement.

2.02 Bidding Documents

The bidding documents issued by the Owner to assist bidders in preparing their bids include:

2.021 Notice to Bidders.

2.022 Instructions to Bidders.

2.023 The Bid.

2.024 Any Addenda issued during the time of bidding or forming a part of the Contract Documents used by the Bidder for the preparation of his Bid, shall be covered in the Bid, and shall be made a part of the Contract. Receipt of each Addendum shall be acknowledged in the Bid.

2.03 Contractual Documents

2.031 Agreement

The Agreement covers the performance of the Work by the Contractor. A specimen form of Agreement is contained in the Project Manual.

2.032 Bonds

At the time of his execution of the Agreement, Contractor shall furnish bonds payable to the Owner, executed by a corporate surety company acceptable to the County as follows:

a. Performance Bond in an amount equal to 100 percent of the total Contract Sum, conditioned upon the faithful performance of all covenants and stipulations of the Contract.

b. Payment Bond in an amount equal to 100 percent of the total Contract Sum for the payment of all persons, companies, or corporations who perform labor upon or furnish material to be used in the Work.

c. Defective Material, Workmanship and Equipment Bond (unless the following described protection is included in the bond furnished pursuant to Section 2.032(a)) in an amount of 100 percent of the total Contract Sum for the protection of the Owner against the results of materials, equipment or workmanship which are inferior, defective or not in accordance with the terms of said contract and which shall have appeared or been discovered within a one (1) year period from Final Acceptance of the Work by the Owner.

d. It is the responsibility of the Contractor to notify all surety companies and other signers of any of the bonds listed above, to familiarize themselves with all of the conditions and provisions of this Contract. All surety companies and other signers shall waive their right of notification by the County of any change or modification of this Contract, or of decreased or increased work or of the cancellation of this Contract, or of any agents under the terms of this Contract. The waiver by the surety companies and other signers shall in no way relieve the surety companies and other signers of their obligations under this Contract.

2.033 Insurance - All certified copies of insurance policies and original certificates of insurance as required by the Contract documents.

2.04 Conditions of the Contract

2.041 These General Conditions of the Contract of which this paragraph is a part.

2.05 Specifications and Plans

2.051 The Plans and Specifications are physically contained in the Contract Documents and in the Drawing Set.

2.06 Discrepancies

2.061 Any discrepancies found between the Plans and Specifications and site conditions or any inconsistencies or ambiguities in the Plans or Specifications shall be immediately reported to the Architect/Engineer, who shall promptly correct such inconsistencies or ambiguities in writing. Any work performed by the Contractor after such findings, until authorized, will be done at the Contractor's risk.

2.062 In the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the provisions of Section 8.1 of the Agreement.

2.07 Interpretation of Specifications and Plans

The Specifications and the Plans are intended to be explanatory of each other. Any work indicated on the Plans and not in the Specifications, or in the event of any doubt or question arising respecting the true meaning of the Specifications or Plans, reference shall be made to the Architect/Engineer and his decision thereon shall be final. In the case of an inconsistency between Plans and Specifications or within either document not clarified by addendum, the better quality or greater quantity of work shall be provided in accordance with the Architect's/Engineer's interpretation. Large scale Plans shall take precedence over small scale Plans; figured dimensions on the Plans over scaled dimensions and noted material over graphic representations.

2.08 Dimensions

2.081 Separation of the Specifications into Sections shall not operate to make the Architect/Engineer an arbiter to establish limits of work between the Contractor and Subcontractors, or between trades. Finished surfaces in all cases shall conform with the lines, grades, cross-sections, and dimensions shown on the Drawings. Deviations from the Plans, as may be required by the exigencies of construction, will in all cases be determined by and authorized in writing by the Architect/Engineer in the form of a Change Order.

2.09 Titles and Headings

The titles and subheadings printed on the Plans, in the General Conditions, in the Specifications, and elsewhere in the Contract Documents are inserted for the convenience of reference only, and shall not be taken or considered as having any bearing on the interpretation thereof.

2.10 Plans and Specifications

2.101 The Plans and Specifications are intended to be comprehensive and to indicate in more or less detail the scope of the Work. Should it appear that the Work to be done, or any of the matters relative thereto, is not sufficiently detailed or explained in these Contract Documents, including the Plans, the Contractor shall apply to the Architect/Engineer in writing for such further explanations as may be necessary and shall conform thereto as part of this Contract, so far as may be consistent with the terms of the Contract.

2.102 In addition to these explanations the Architect/Engineer may furnish additional Supplementary Instructions which may include plans, from time to time during the progress of the Work to clarify or to define in greater detail the intent of the Specifications and Plans,

and Contractor shall make his work conform to all such documents and plans.

2.103 All Plans, Specifications and other documents are instruments of the Architect/Engineer but remain the property of the Owner. The Contractor may retain one contract record set. Neither the Contractor nor any Subcontractor shall own or claim a copyright in the Plans, Specifications and other documents prepared by the Architect/Engineer or Owner. All copies of them, except the Contractor's record set, shall be returned and suitably accounted for to the Architect/Engineer, on request, upon completion of the Work. The Plans, Specifications and other documents prepared by either the Architect/Engineer or Owner, and copies thereof furnished to the Contractor, are for use solely with respect to this Project. They are not to be used by the Contractor or any Subcontractor, on other projects or for additions to this Project outside the scope of the Work without the specific written consent of the Owner and Architect/Engineer.

2.104 The Contractor and Subcontractor are granted a limited license to use and reproduce applicable portions of the Drawings, Specifications and other documents prepared by the Owner and Architect/Engineer appropriate to and for use in the execution of their Work under the Contract Documents. All copies made under this license shall bear the statutory copyright notice, if any, shown on the Plans, Specifications and other documents prepared by the Owner and Architect/Engineer. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with this Project is not to be construed as publication in derogation of the Owner or Architect/Engineer's copyright or other reserved rights.

2.11 Copies Furnished

2.111 The Owner will furnish to the Contractor, free of charge, one set of reproducible sepia drawings of the Plans and one reproducible copy of the Project Manual.

3. OWNER-ARCHITECT/ENGINEER-RESIDENT ENGINEER CONTRACTOR RELATIONS

3.01 Architect/Engineer

3.011 The Architect/Engineer is the person lawfully licensed as such, and is referred to throughout the Contract Documents as if singular in number and masculine in gender. The term Architect/Engineer means the Architect, Engineer, Resident Engineer or the authorized representative of the Architect or Engineer.

3.02 Administration of the Contract.

3.021 General Administration of Construction Contract. Architect/Engineer shall consult with and advise Owner and act as Owner's representative as

provided in these General Conditions. All of Owner's instructions to Contractor(s) will be issued through Architect/Engineer who will have authority to act on behalf of Owner to the extent provided in said General Conditions except as otherwise provided in writing.

3.022 Visits to Site and Observation of Construction. In connection with observations of the work of Contractor(s) while it is in progress.

3.0221 Architect/Engineer shall make visits to the site at intervals appropriate to the various stages of construction as Architect/Engineer deems necessary in order to observe as an experienced and qualified design professional the progress and quality of the various aspects of Contractor(s) work. Based on information obtained during such visits and on such observations, Architect/Engineer shall endeavor to determine in general if such work is proceeding in accordance with the Contract Documents and Architect/Engineer shall keep the Owner informed of the progress of the work.

3.0222 The Owner Representative shall also schedule and conduct regular job meetings with the Contractor which the Architect/Engineer will attend, at regular intervals and prepare minutes thereof. (Observational site visits would most likely occur on the same dates that the meetings take place.)

3.0223 Not Applicable

3.023 Defective Work. During such visits and on the basis of such observations, Architect/Engineer may disapprove of or reject Contractor(s)' work while it is in progress if Architect/Engineer believes that such work will not produce a completed Project that conforms generally to the Contract Documents or that it will prejudice the integrity of the design concept of the Project as reflected in the Contract Documents.

3.024 Interpretations and Clarifications. Architect/Engineer shall issue necessary interpretations and clarifications of the Contract Documents and in connection therewith prepare work directive changes and change orders as required.

3.025 Shop Drawings. Architect/Engineer shall review and approve (or take other appropriate action in respect of) Shop Drawings (as that term is defined in the aforesaid General Conditions), samples and other data which Contractor(s) are required to submit, but only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. Such reviews and approvals or other action shall not extend to means, methods, techniques, sequences or procedures of construction or to safety precautions and programs incident thereto.

3.026 Substitutes. Architect/Engineer and Owner shall evaluate and determine the acceptability of substitute materials and equipment proposed by Contractor(s).

3.027 Inspections and Tests. Owner shall have authority to require special inspection or testing of the work, and shall receive and review all certificates of inspection, testing and approvals required by laws, rules, regulations, ordinances, codes, orders or the Contract Documents (but only to determine generally that their content complies with the requirements of, and the results certified indicate compliance with, the Contract Documents).

3.028 Disputes between Owner and Contractor. Architect/Engineer shall act as initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the work thereunder and make decisions on all claims of Owner and Contractor(s) relating to the acceptability of the work or the interpretation of the requirements of the Contract Documents pertaining to the execution and progress of the work. Architect/Engineer shall not be liable for the results of any such interpretations or decisions rendered in good faith.

3.029 Applications for Payment. Based on Architect/Engineer's on-site observations as an experienced and qualified design professional and on review of application for payment and the accompanying data and schedules:

3.0210 By recommending any payment Architect/Engineer will not thereby be deemed to have represented that exhaustive, continuous or detailed reviews or examinations have been made by Architect/Engineer to check the quality or quantity of Contractor(s)' work as it is furnished and performed beyond the responsibilities specifically assigned to Architect/Engineer in this Agreement and the Contract Documents. Architect/Engineer's review of Contractor(s)' work for the purposes of recommending payments will not impose on Contractor's responsibility to supervise, direct or control such work or for the means, methods, techniques, sequences, or procedures of construction or safety precautions or programs incident thereto or Contractor(s) compliance with laws, rules, regulations, ordinances, codes or orders applicable to their furnishing and performing the work. It will also not impose responsibility on Architect/Engineer to make any examination to ascertain how or for what purposes any Contractor has used the moneys paid on account of the Contract Price, or to determine that title to any of the work, materials or equipment has passed to Owner free and clear of any lien, claims, security interests of encumbrances, or that there may not be other matters at issue between Owner and Contractor that might affect the amount that should be paid; however, payments shall not be made without proper waivers of lien submitted.

3.0211 Contractor(s) Completion Documents. Architect/Engineer shall receive and review maintenance

and operating instructions, schedules, guarantees, bonds and certificates of inspection, tests and approvals which are to be assembled by Contractor(s) in accordance with the Contract Documents (but such review will only be to determine that their content complies with the requirements of, and in the case of certificates of inspection, tests and approvals the results certified indicate compliance with, the Contract Documents); and shall transmit them to Owner with written comments.

3.0212 Inspections and Observation.

Architect/Engineer shall conduct an inspection to determine if the work is substantially complete and a final inspection to determine if the completed work is acceptable so that Architect/Engineer may recommend, in writing, final payment to Contractor(s) and may give written notice to Owner and the Contractor(s) that the work is acceptable (subject to any conditions therein expressed), but any such recommendation and notice will be subject to the limitations expressed in paragraph 3.0210.

3.0213 Limitation of Responsibilities.

Architect/Engineer shall not be responsible for the acts or omissions of any Contractor, or of any subcontractor or supplier, or any of the Contractor(s)' or subcontractor's or supplier's agents or employees or any other persons.

3.03 Information and Services Required of the Owner

3.031 The Owner shall make available to the Contractor such plans of the existing facility as are in the Owner's possession.

3.032 Information or services under the Owner's control shall be furnished by the Owner with reasonable promptness to avoid delay in the orderly progress of the Work.

3.033 The Contractor will be furnished, pursuant to Paragraph 2.11 hereof and free of charge, one (1) set of the reproducible sepia drawings and Project Manual for the execution of the Work.

3.034 The Owner shall forward all instructions to the Contractor through the Architect/Engineer.

3.035 The foregoing are in addition to other duties and responsibilities of the Owner enumerated herein.

3.036 Owner's Right to Stop Work

a. If the Contractor fails to correct defective Work as required by Paragraph 6.10 or persistently fails to carry out the Work in accordance with the Contract Documents, the Owner, by a written order signed personally or by an agent specifically so empowered by the Owner in writing, may at any time stop the Work, or any part hereof, until the cause for such an order has been eliminated; however, this right of the Owner to stop the

Work shall not give rise to any duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity.

b. In case of emergencies involving public health or public safety or to protect against loss or damage to the Owner's property or to minimize disruption of the Owner's services to the public, the Owner or his duly empowered agent may issue a stop work order without prior written notice.

3.037 Owner's Right To Carry Out The Work

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within seven (7) days after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, after seven (7) days following receipt by the Contractor of an additional written notice and without prejudice to any other remedy he may have, make good such deficiencies. In such case an appropriate Change Order shall be issued deducting from the payments then or thereafter due the Contractor the cost of correcting such deficiencies, including compensation for the Architect/Engineer's additional services made necessary by such default, neglect or failure. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the Owner upon demand.

3.038 Not Used

3.039 Emergency Protection By Owner

a. In case of an emergency which threatens loss, damage, or injury to persons or property which requires immediate action to remedy, in the absence of Contractor's personnel, then and in that event, the Owner, with or without notice to Contractor or his surety, may provide suitable protection to the said property and persons by causing such work to be done and such material to be furnished as shall provide such protection as the Owner may consider necessary and adequate. The cost and expense of such work and material so furnished shall be borne by the Contractor and if the same shall not be paid on presentation of the bills therefore, then such costs shall be deducted from any amounts due or to become due the Contractor.

b. The performance of such emergency work under the direction of the Owner shall in no way relieve Contractor from any damages which may occur during or after such precaution has been taken by the Owner.

3.310 Right of Owner To Terminate Agreement

a. If the Contractor shall institute proceedings or consent to proceedings requesting relief or arrangement under the Federal Bankruptcy Act or any applicable federal or state law, or if a petition under any

federal or state insolvency law is filed against the Contractor and such petition is not dismissed within seven (7) days from the date of said filing, or if the Contractor admits in writing his inability to pay his debts generally as they become due, or if he makes a general assignment for the benefit of his creditors, or if a receiver, liquidator, trustee or assignee is appointed on account of his bankruptcy or insolvency; or if a receiver of all or any substantial portion of the Contractor's properties is appointed; or if the Contractor abandons the Work; or if he fails, except in cases for which extension of time is provided, to prosecute promptly and diligently the Work or to supply enough properly skilled workmen or proper materials for the Work; or if the Contractor submits an Application for payment, sworn statement, waiver of lien, affidavit or document of any nature whatsoever which is intentionally falsified; or if the Contractor fails to make prompt payment to Subcontractors for materials or labor or otherwise breaches obligations under any subcontract with a Subcontractor; or if a mechanic's or materialman's lien or a notice of lien is filed against any part of the Project and is not promptly bonded or insured over by the Contractor in a manner satisfactory to the Owner; or if the Contractor disregards any laws, statutes, ordinances, rules, regulations or orders of any governmental body or public or quasi-public authority having jurisdiction of the Work or the Project premises; or if the Contractor otherwise violates any provision of the Contract Documents then, without prejudice to any right or remedy available to the Owner under the Contract Documents or at law or in equity, the Owner may, after giving the Contractor seven (7) days written notice, terminate the employment of the Contractor, and take possession of the Project and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor and may complete the Work by whatever method the Owner may deem expedient. If requested by the Owner, the Contractor shall remove any part or all of his equipment, machinery and supplies from the Project within seven (7) days from the date of such request, and in the event of the Contractor's failure to do so, the Owner shall have the right to, remove or store or remove and store, such equipment, machinery and supplies at the Contractor's expense. In case of such termination, the Contractor shall not be entitled to receive any further payment for Work performed by the Contractor through the date of termination until Final Completion of the Work.

b. Owner shall have the unconditional right to terminate the Contract at Owner's sole discretion without cause. If Owner terminates the Contract without cause and not for one of the reasons provided in Subparagraph 3.0310a then, in such event (and only in such event), it shall reimburse the Contractor for the actual cost to the Contractor of labor and materials incorporated by Contractor in work performed to the date of such termination including but not limited to work in process, and materials purchased and costs of canceling purchase orders, and the Contracts of Subcontractors, less the

aggregate of all amounts paid on account. In such event, also, the Owner shall further assume all reasonable obligations, subcontracts, purchase orders, commitments and unliquidated claims that the Contractor may have theretofore, in good faith, acting in a reasonable manner, undertaken or incurred in connection with the Work, and the Contractor, as a condition of receiving payments mentioned in this Article, shall execute and deliver to Owner all papers and take all such steps, including legal assignment of its contractual rights, as the Owner may require for the purpose of vesting in Owner the rights and benefits of the Contractor with respect to any such obligation, subcontract, purchase order, commitment or unliquidated claim. Nothing in this paragraph shall be taken as imposing any obligation on the Owner in the event the Contract is terminated for one or more of the causes stated in Subparagraph 3.0310a.

c. The Owner's right to terminate the contract pursuant to Paragraph 3.0310 shall be in addition to and not in limitation of its right to stop the Work without terminating the Contract pursuant to Paragraph 3.036

3.04 Contractor Supervision and Construction Procedures

3.041 Review of Contract Documents and Field Conditions By Contractor

3.0411 The Contractor shall carefully study and compare the Contract Documents and shall at once report to the Architect/Engineer any error, inconsistency or omission he may discover. The Contractor shall perform no portion of the Work at any time without Contract Documents or, where required, approved Shop Drawings, Product Data or Samples for such portion of the Work. If the Contractor performs any construction activity knowing it involves a recognized error, inconsistency or omission in the Contract Documents without such notice to the Architect/Engineer, the Contractor shall assume appropriate responsibility for such performance and shall bear an appropriate amount of the attributable costs for correction.

3.042 Attention To Work

3.0421 The exactness of grades, elevations, dimensions, or locations including but not limited to underground structures given on any drawings issued by the Architect/Engineer or the work installed by other contractors, is not guaranteed by the Architect/Engineer or Owner. The Contractor shall, therefore, satisfy himself as to the load bearing characteristics of the soil, the subsurface conditions, the accuracy of all grades, elevations, dimensions and locations. In all cases of interconnection of his work with existing or other work, he shall verify at the site all dimensions relating to such existing or other work. Any errors due to the Contractor's failure to so verify all such grades,

elevations, locations or dimensions shall be promptly rectified by him without extra cost to the Owner.

a. The Contractor shall supervise the Work to the end that it shall be prosecuted faithfully, and he shall at all times be represented by a competent superintendent who shall be present at the Work and who shall receive and obey all instructions or orders given under this Contract; and who shall have full authority to execute the same, and to supply materials, tools, and labor without delay; and who shall be the legal representative of the Contractor. The Contractor shall be liable for the faithful observance of any instructions delivered to him or to his authorized representative.

b. The Contractor shall supervise and direct the Work, using his best skill and attention. He shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract.

c. The Contractor shall be responsible to the Owner for the acts and omissions of his employees, Subcontractors and their agents and employees, and other persons performing any of the Work under a contract with the Contractor.

d. The Contractor shall not be relieved from his obligations to perform the Work in accordance with the Contract Documents either by the activities or duties of the Architect/Engineer in his administration of the Contract, or by inspections, tests or approvals required or performed pursuant to the Contract Documents.

e. Until Final Acceptance, Contractor shall keep on the Work at all times during its progress a competent superintendent who shall not be replaced without written notice to Owner and Architect/Engineer. The superintendent will be Contractor's representative at the site and shall have authority to act on behalf of Contractor. All communications given to the superintendent shall be as binding as if given to Contractor. Contractor's superintendent as approved by Architect/Engineer shall not be removed from Project until Final Acceptance. Contractor's superintendent shall be assigned solely to Project and he shall not perform any duties or superintendent on any other Project Contractor may have until Final Completion of this Project.

3.043 Protection of Existing Structures

Unless otherwise indicated on the Plans or unless otherwise taken care of by the Owner thereof, all utilities and all structures of any nature, whether below or above ground, that may be affected by the Work shall be protected and maintained by the Contractor and shall not be disturbed or damaged by him during the progress of the Work. Should the Contractor disturb, disconnect, or damage any utility or any structure, all expenses of whatever nature arising from such disturbance or the replacement or repair thereof shall be borne by the Contractor.

3.044. Protection of Contractor's Work and Property

a. The Contractor shall protect his work, supplies, and materials from damage due to the nature of the Work, the action of the elements, trespassers, or any cause whatsoever, until the completion and Final Acceptance or the Work. In order to carry out such responsibilities, the Contractor shall provide appropriate security for the limits of the Work areas as shown in the Drawings and other contract documents.

b. Neither the Owner nor any of his officers, employees, or agents assumes any responsibility for collecting indemnity from any persons or person causing damage to the work of the Contractor.

3.045 Location of Utilities

Prior to commencement of the Work the Contractor shall make final and exact determination of the location and extent of the utilities. Contractor shall be liable for any expense resulting from damage to them.

3.046 Observation of Completed Work

Refer to Paragraph 6.09.

3.047 Liability of Contractor

The mention of any specific duty or liability imposed upon the Contractor shall not be construed as a limitation or restriction of any general or other liability or duty imposed upon the Contractor by this Contract, said reference to any specific duty or liability being made merely for the purpose of explanation.

3.048 Assumption of Risks

Until Final Completion and Final Acceptance of all of the Work under or implied by the Contract, the Work, except those portions which are under beneficial use by the Owner, shall be under the Contractor's care and charge and he shall be responsible therefor. The Contractor shall rebuild, replace, repair, restore, and make good all injuries, damages, re-erection and repairs occasioned or rendered necessary by causes of any nature whatsoever, to all or any portions of the Work, except as otherwise stipulated.

3.049 Responsibility for Damage

The Contractor shall assume the defense of, and indemnify and save harmless the Owner and each and every officer, employee and agent thereof, the Architect/Engineer and Engineer from any and all loss, liability, or damage and from all suits, actions, damages, or claims of every name and description, to which the Owner or any of its officers, employees, or agents, or the Architect/Engineer and Engineer, may incur or be subjected or put by reason of injury to persons or

property in the execution of the Work or resulting from negligence or carelessness on the part of the Contractor, his officers, employees, Subcontractors, or agents, in the delivery of materials and supplies; or by or on account of any act or omission of Contractor, his officers, employees, Subcontractors, or agents, including, but not limited to, any failure to fulfill the terms of or comply with all laws and regulations which apply to this Contract; and Owner shall have the right to estimate the amount of such damage and pay the same, and the amount so paid for such damage shall be deducted from the money due Contractor, under the Contract, or the whole or so much of the money due or to become due the Contractor under the Contract, as may be considered necessary by the Owner, shall be retained by the Owner until such suits or claims for damages shall have been settled or otherwise disposed of, and satisfactory evidence to that effect furnished to the Owner.

3.0410 Acceptance of Contractor's Plans

The acceptance by the Architect/Engineer of any drawing or any method of work proposed by Contractor shall not relieve the Contractor of any responsibility for any errors therein and shall not be regarded as any assumption of risk or liability by the Owner or any officer or employee thereof; any Contractor shall have no claim under the Contract on account of the failure or partial failure or inefficiency of any plan or method so accepted. Such acceptance shall be considered to mean merely that the Architect/Engineer has no objection to the Contractor's using, upon his own full responsibility, the plans or method proposed.

3.0411 Suggestions to Contractor

Any plan or method of work suggested by the Architect/Engineer to the Contractor, but not specified or required, if adopted or followed by the Contractor, in whole or in part, shall be used at the risk and responsibility of the Contractor.

3.0412. Cooperation with the Owner and Other Contractors

Owner shall have the right to cause any Work not required to be performed by the Contractor, or any other work with respect to the Project to be performed by other contractors of Owner's choosing. Such other contractors shall have access to the site in order to enable them to perform such other Work, as the case may be.

3.0413 Taxes

Retail sales tax will not be included in the bid amount. The Owner is exempted by Section 3 of the Illinois Use Tax Act (Illinois Compiled Statutes 1992, 35 ILCS 105/3) from paying any of the taxes imposed by the Act. The active exemption identification number issued to Owner is E9997-4551-05. Sales to Owner are exempt

by Section 2 or the Retailer's Occupation Tax Act (Illinois Compiled Statutes 1992, 35 ILCS 120/2) from any of the taxes imposed by the Act. The Department of Revenue of the State of Illinois under Rule No. 15, issued August 9, 1961, has declared that sales of materials to construction contractors for

without the written consent of Owner and Architect/Engineer so to do.

b. The Contractor shall not contract with any such proposed person or entity to whom the Owner or the Architect/Engineer has made reasonable objection under the provisions of Subparagraph 3.052a. The

conversion into real estate for schools, governmental bodies, agencies and instrumentalities are not taxable retail sales.

3.0414 Permits, Fees and Notices

a. The Contractor will secure and pay for necessary building permits and for all other permits and governmental fees, licenses and inspection necessary for the proper execution and completion of the Work.

b. The Contractor shall give all notices and comply with all laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the performance of the Work.

c. If the Contractor performs any Work knowing it to be contrary to such laws, ordinances, rules and regulations, and without prior written notice to the Architect/Engineer and prior written approval (referring to such notice) by the Architect/Engineer, Contractor shall assume full responsibility therefor and shall bear all costs attributable thereto.

Contractor shall not be required to contract with anyone to whom he has a reasonable objection.

c. If the Owner or the Architect/Engineer has reasonable objection to any such proposed person or entity, the Contractor shall submit a substitute to whom the Owner or the Architect/Engineer has no reasonable objection, and the Contract Sum shall be increased or decreased by the difference in cost occasioned by such substitution and an appropriate Change Order shall be issued; however, no increase in the Contract Sum shall be allowed for any such substitution unless the Contractor has acted promptly and responsively in submitting names as required by Subparagraph 3.052a.

d. The Contractor shall make no substitution for any Subcontractor, person or entity previously listed in the Contractor's Bid pursuant to the Instructions to Bidders without prior written approval from the Owner and Architect/Engineer.

3.053 Subcontractual Relations

Neither the Contractor nor any Subcontractor shall make or enter into any contract with any Subcontractor that is at variance or in conflict with the provisions or requirements of the Contract Documents. Prior to the execution of any contract with any Subcontractor, the Contractor shall make copies of the Contract Documents available for examination and review by such Subcontractor, and shall obtain from each Subcontractor a Subcontractor's Statement. Similarly, each Subcontractor shall make copies of the Contract Documents available to the proposed Subcontractors of such Subcontractor and obtain from them and deliver to the Contractor (for delivery by him to the Owner) the required Subcontractor's Statements.

All work performed for Contractor by a Subcontractor will be pursuant to an appropriate agreement between Contractor and the Subcontractor which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Architect/Engineer and contains waiver provisions as required by the Contract Documents. Contractors shall pay each Subcontractor a just share of any insurance moneys received by Contractor on account of losses under policies issued pursuant to Article 12.

3.0415 Contractor's Construction Schedule

Refer to Project Coordination, Specifications.

3.05 Subcontractors

3.051 For definition see 1.38 hereof.

3.052 Award of Subcontractors and Other Contracts for Portions of the Work

a. The Contractor shall submit to Owner, with his Bid, a written list of the names, addresses and telephone numbers of the persons or entities (including those who are to furnish materials or equipment fabricated to a special design) engaged or proposed to be engaged by Contractor for each of the principal portions of the Work, together with a schedule of values for each portion of the Work. Within seven (7) days after receipt by the Owner of the aforesaid written list of the Contractor, the Owner shall designate in written notice to the Contractor the name of any person or entity indicated on the written list of the Contractor, who or which is not acceptable either to Owner or Architect/Engineer. Contractor shall not make any changes in or substitutions of the persons or entities indicated on said written list

Upon Owner's or Architect/Engineer's written request, the Contractor will provide to such respective parties copies of any or all written contracts, agreements, purchase orders, drafts or any other documents requested by the Owner or Architect/Engineer with respect to the services to be performed by any Subcontractor, or the materials to be supplied by any material man.

4. MATERIALS, EQUIPMENT AND WORKMANSHIP

4.01 Shop Drawings, Product Data and Samples

4.011 Shop Drawings are drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or any Subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.

4.012 Product Data are illustrations, standard schedules, performance charts, instruction brochures, diagrams and other information furnished by the Contractor to illustrate a material, product or system for some portion of the Work.

4.013 Samples are physical examples which illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.

4.014 The Contractor shall review, approve and submit with reasonable promptness and in such sequence as to cause no delay in the Work or in the work of the Owner or any separate contractor, all Shop Drawings, Product Data and Samples required by the Contract Documents.

4.015 By approving and submitting Shop Drawings, Product Data and Samples, the Contractor represents that he has determined and verified all materials, field measurements, and field construction criteria related thereto, or will do so, and that he has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

4.016 The Contractor shall not be relieved of the responsibility for any deviation from the requirements of the Contract Documents by the Architect/Engineer's approval of Shop Drawings, Product Data or Samples under Subparagraph 3.0210 unless the Contractor has specifically informed the Architect/Engineer in writing of such deviation at the time of submission and the Architect/Engineer has given written approval to the specific deviation. The Contractor shall not be relieved from responsibility for errors or omissions in the Shop Drawings, Product Data or Samples by the Architect/Engineer's approval thereof.

4.017 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data

or Samples, to revisions other than those requested by the Architect/Engineer on previous submittals.

4.018 No portion of the Work requiring submission of a Shop Drawing, Product Data or Sample shall be commenced until the submittal has been approved by the Architect/Engineer or Engineer as provided in Submittals Section of the Specifications. All such portions of the Work shall be in accordance with approved submittals.

4.019 Contractor may offer any material or equipment as equal in every respect to that required by the Specifications.

(a) Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the site.

(b) Unless otherwise specified in the General Requirements, Contractor shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.

4.02 Records

4.021 Records of Employees: Contractor and each Subcontractor shall keep an accurate record showing the name, place of residence, occupation, per diem pay and actual hours worked each day and each calendar week by each person employed in connection with the Work. The records shall be available at any time to the Owner or the Architect/Engineer or their duly authorized representatives or the Illinois Department of Labor. Records must be preserved for six (6) years following completion of the Contract.

4.022 Project Records: Contractor and each Subcontractor shall keep all records referred to in the Specifications and Plans. The records shall be available for inspection at any time by the Owner or the Architect/Engineer or their duly authorized representatives. In addition, project records shall be furnished in accordance with the requirements of Division 1, Section 01700, Project Closeout of the Specifications when applicable.

4.03 Final Guarantee

4.031 All Work shall be guaranteed by the Contractor for a period of one year from and after the date of Final Acceptance of the Work by Owner, unless otherwise noted herein. The starting period for all special guarantees and warranties applicable to specific parts of

the Work as may be stipulated in the specifications or other documents forming a part of the Contract shall begin one year from and after the date of Final Acceptance of the Work by Owner.

4.032 If, within the guarantee period, repairs or changes are required in connection with guaranteed work which, in the opinion of the Architect/Engineer, is rendered necessary as the result of the use of materials, equipment, or workmanship which are inferior, defective or not in accordance with the terms of the Contract, the Contractor shall promptly, upon receipt of notice from the Owner and without expense to the Owner, do the following:

- a. Place in satisfactory condition in every particular all of such guaranteed Work and correct all defects therein.
- b. Make good all damage to the building, site or equipment or contents thereof which, in the opinion of the Architect/Engineer, is the result of the use of materials, equipment or workmanship which are inferior, defective, or not in accordance with the terms of the Contract.
- c. Make good any work or material, or the equipment and contents of building, structure, or site disturbed in fulfilling any such guarantee.
- d. Submit a reasonable work schedule for Owner's needs showing the dates of starting and completing the repair work.

4.033 If Contractor, after notice, fails within ten (10) days to proceed to comply with the terms of the guarantee described in paragraphs 4.031 and 4.032, the Owner may have the defects corrected and the Contractor and his surety shall be liable for all expense incurred; provided, however, that in case of an emergency where, in the opinion of Owner, delay would cause loss or damage, repairs may be started without notice being given to the Contractor and Contractor shall pay all costs thereof.

4.034 If minor repairs are made by the Owner without notice to the Contractor, or if Owner's personnel are used to assist Contractor or an equipment supplier in making repairs to defective work, Contractor will be billed for and shall pay the costs of the minor repairs and the costs associated with the use of Owner's personnel.

4.035 If, in order to make required repairs, it is considered necessary by the Contractor or the manufacturer that the repairs be made at the manufacturer's factory, the Contractor shall pay the cost of removing, crating, shipping, repairing and re-installing the equipment.

4.036 All special guarantees or warranties applicable to specific parts of the Work as may be stipulated in the Specifications or other documents forming a part of the Contract shall be subject to the terms of Paragraph 4.03 and the subsequent provisions of this section 4 during the first year of the life of each such guarantee. Special guarantees and warranties beyond the one (1) year shall conform to the requirements in the specific specifications section, refer to Warranties and Bonds. Prior to the issuance of the Architect/Engineer's Certificate of Final Payment, (and as a condition precedent to the issuance thereof) Contractor shall assemble and deliver to the Architect/Engineer all special guarantees and manufacturers' warranties together with a summary list thereof.

4.04 Use of the Site

The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits and the Limit or Work as shown in the Plans and other Contract Documents and shall not unreasonably encumber the site with any materials or equipment. Within ten (10) days after the execution of the Agreement, Contractor shall deliver to Architect/Engineer and Owner for their review and approval, a layout drawing indicating the location of all temporary structures, facilities, roadways, parking areas, utilities, fencing, field offices, stock piles, barrow pits and storage areas and the routes of ingress to and egress from the construction site, including any signage.

4.05 Cutting and Patching of Work

4.051 The Contractor shall be responsible for all cutting, fitting or patching that may be required to complete the Work or to make its several parts fit together properly.

4.052 The Contractor shall not damage or endanger any portion of the Work or the work of the Owner or any separate contractors by cutting, patching or otherwise altering any work, or by excavation. The Contractor shall not cut or otherwise alter the work of the Owner or any separate contractor except with the written consent of the Owner and of such separate contractor. The Contractor shall not unreasonably withhold from the Owner or any separate contractor his consent to cutting or otherwise altering the Work.

4.053 Refer to appropriate section - Cutting and Patching - in the Specifications for further conditions.

4.06 Cleaning up

4.061 The Contractor at all times shall keep the premises free from accumulation of waste materials or rubbish caused by his operations. At the completion of the Work he shall remove all his waste materials and rubbish from and about the Project as well as all his tools, construction equipment, machinery and surplus

materials. Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

4.062 If the Contractor fails to clean up at the completion of the Work, the Owner may do so and the cost thereof shall be charged to the Contractor.

4.063 Refer to appropriate section – Project Closeout - of the Specifications for further conditions.

4.07 Communications

The Contractor shall forward all communications to the Owner through the Architect/Engineer.

4.08 Indemnification

The Contractor shall indemnify the Owner, and all elected officials of Owner, Architect/Engineer and Resident Engineer and the officers, employees and agents of Owner, Architect/Engineer and Resident Engineer (all collectively referred to as the "Indemnities") and shall defend, save and hold the Indemnities harmless from and against any claim, suit, legal proceeding, judgment, decree, loss, cost, damage or expense (including, but not limited to, reasonable attorney's fees and other costs and expenses incident to the investigation or the defense of any claim, suit or legal proceeding) arising from any or all losses due to or resulting from or related to, the performance of the Work by the Contractor, any Subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be responsible or liable, except to the extent caused by the sole negligence of the Owner, its elected officials, officers, employees and agents. The obligations of the Contractor described in this Paragraph 4.08 shall be construed broadly in favor of Indemnities and shall not be construed to negate, abridge or otherwise reduce any right or obligation of indemnity which would otherwise exist as to any party or person described in this Paragraph 4.08.

In any and all claims against Owner and Architect/Engineer or any of their consultants, agents or employees by any employee of Contractor, any Subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 4.08 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for Contractor or any such Subcontractor or other person or organization under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.

5. INSURANCE, LEGAL RESPONSIBILITY AND SAFETY

5.01 Insurance to Be Maintained by Contractor.

The Contractor shall purchase from and maintain in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

A. claims under workers' or workmen's compensation, disability benefit and other similar employee benefit acts which are applicable to the Work to be performed including private entities performing work at the site and exempt from the coverage on account of number of employees or occupation, which entities shall maintain voluntary compensation coverage at the same limits specified for mandatory coverage for the duration of the Project;

B. claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees, or persons or entities excluded by statute but required by the Contract Documents to provide the insurance required by that clause;

C. claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;

D. claims for damages insured by usual personal injury liability coverage which are sustained (1) by a person as a result of an offense directly or indirectly related to employment of such person by the Contractor, or (2) by another person;

E. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;

F. claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle and coverage shall be written on a comprehensive automobile policy which shall include coverage for owned, non-owned and hired motor vehicles;

G. claims involving contractual liability insurance applicable to the Contractor's obligations under Paragraph 4.08 hereof.

5.011 Liability insurance shall be written on the comprehensive general liability basis, and shall include, but not be limited to the following sub-lines:

- A. Premises and Operations including x, c, u coverage's (explosion, collapse, underground).
- B. Products and Completed Operations.
- C. Independent Contractor's Protective.
- D. Broad Form Comprehensive General Liability Endorsement:
 - 1. Contractual liability
 - 2. Personal Injury & Advertising Injury Liability
 - 3. Premises Medical Payments
 - 4. Host Liquor Law Liability
 - 5. Fire Legal Liability - Real Property
 - 6. Broad Form Property Damage Liability (including Completed Operations)
 - 7. Incidental Medical Malpractice Liability
 - 8. Non-owned Watercraft Liability
 - 9. Limited Worldwide Liability
 - 10. Additional Persons insured
 - 11. Extended Bodily Injury Liability
 - 12. Automatic Coverage - Newly Acquired Organizations (90 days)

5.012 If liability insurance is written under the new simplified form - "Commercial General Liability Policy," the above listed coverages shall be included.

- * A specified provision for contractor's obligations under Paragraph 4.08 shall be included.
- ** Employees are not covered for personal & advertising injury.
This exclusion should be deleted.

5.013 Completed Operations coverage shall be provided under the general liability policy and such coverage shall not terminate prior to the third (3rd) anniversary of the date of Final Acceptance.

If the general liability coverage's are provided on a claims-made basis, the policy date or retroactive date shall predate the contract and the termination date of the policy shall be no earlier than the third (3rd) anniversary of the date of Final Acceptance.

5.014 The Contractor shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance in the amount of the completed value for the entire Work at the site on a replacement cost basis. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made or until no person or entity other than the Owner has an insurable interest in the Work required by this paragraph to be covered, whichever is earlier. The insurance shall include

interests of the Contractor and Subcontractors in the Work.

Property insurance shall be on an all-risk policy from and shall insure against the perils of fire and extended coverage and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, Collapse, flood and earthquake. Coverage shall also include false work, temporary buildings and debris removal. Coverage for other perils shall not be required unless otherwise provided in the Contract Documents.

5.015 The insurance required by Subparagraph 5.01 shall be written for not less than the following limits, or greater if required by law:

- 1. Workers' Compensation:
 - a. State: Statutory
 - b. Applicable Federal (e.g., Longshoremen's): Statutory
 - c. Employer's Liability
 - \$500,000 Per Accident
 - \$500,000 Disease, Policy Limit
 - \$100,000 Disease, Each Employee
- 2. Comprehensive or General Liability
 - a. Bodily Injury and Property Damage Combined:
 - \$2,000,000 Each Occurrence
 - \$2,000,000 Aggregate
- 3. Personal Injury
 - \$2,000,000 Aggregate
- 4. Business Automobile Liability (including owned, non-owned and hired vehicles):
 - a. Bodily Injury and Property Damage Combined:
 - \$2,000,000 Each Occurrence
- 5. Umbrella Excess Liability:
 - \$5,000,000 over Primary Insurance
 - \$5,000,000 Retention for Self-Insured Hazards Each Occurrence
- 6. Commercial General Liability (if written under ACCORD Form 25S)
 - a. General Aggregate/Per Project \$2,000,000
 - b. Products/Completed Operations \$2,000,000 Aggregate
 - c. Personal and Advertising \$2,000,000 Injury
 - d. Each Occurrence \$2,000,000
 - e. Fire Legal Liability (any on fire) \$50,000
 - f. Medical Expense \$5,000 (any one person)

5.016 Original insurance policies and Certificates of Insurance acceptable to the Owner shall be filed with the

Owner prior to commencement of the Work. These Certificates and the insurance policies required by this Paragraph 5.01 shall contain a provision that coverage, afforded under the policies will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner. If any of the insurance coverage's described in Paragraph 5.014 are required to remain in force after final payment, and additional certificate evidencing continuation of such coverage shall be submitted with the final Application for Payment as required by Subparagraph 6.501 hereof. Information concerning reduction of coverage shall be furnished by the Contractor with reasonable promptness in accordance with the Contractor's information and belief.

If this insurance is written on the Comprehensive General Liability Policy Form, the certificates shall be ACCORD 25, Certificate of Insurance. If this insurance is written on a Commercial General Liability Policy form, ACCORD 25S Form, will be acceptable. In Form ACCORD 25 and 25S, strike-out (delete) in the cancellation provision the following works, "Endeavor to" and "but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representatives."

5.017 The Owner and Contractor waive all rights against (1) each other and any of their Subcontractors, sub-subcontractors, agents and employees, each of the other, and (2) the Architect/Engineer, Architect/Engineer's consultants, separate contractors, and any of their Subcontractors, sub-subcontractors, agents and employees, for damages caused by fire or other perils to the extent covered by property insurance and General Liability, except such rights as they have to proceeds of such insurance held by the Owner. The Owner or Contractor, as appropriate, shall require of the Architect/Engineer, Architect/Engineer's consultants, separate Contractors and the Subcontractors, sub-subcontractors, agents and employees of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of the other parties enumerated herein. The policy shall provide such waivers of subrogation by endorsement or otherwise.

5.018 The insurance coverage under this paragraph shall not extend to the liability of the Architect/Engineer, his agents or employees arising out of (1) the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications or (2) the giving of or failure to give direction or instruction by the Architect/Engineer, his agents or employees provided that such giving or failure to give is the primary cause of the injury damage.

5.02 Named Additional Insured

The Contractor will name as Additional Insured on his policies the Owner, the Architect/Engineer, the Resident Engineer and their Agents and Employees.

Coverage will protect against all claims, damages, losses and expenses including attorney's fees arising out of our resulting from performance of the work providing that any such claim, damage, loss or expense (1) is attributable to bodily injury, sickness, disease or death, or injury to or destruction of tangible property (other than the work itself) including the loss of use resulting therefrom, and (2) is caused in whole or in part by any negligent act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party to whom insurance is afforded pursuant to this paragraph.

5.03 Performance and Payment Bond

The Contractor shall furnish bonds covering faithful performance of the Contract and payment of obligations arising thereunder. Bonds may be obtained through the Contractor's usual source and the cost thereof shall be included in the Contract Sum. The amount of each bond shall be equal to 100 percent of Contract Sum.

The Contractor shall require the attorney-in-fact who execute the required bonds on behalf of the surety to affix thereto a certified and current copy of his power of attorney so to do.

5.04 Notification of Insurance Companies

It is the responsibility of the Contractor to notify all insurance companies to familiarize them with all of the conditions and provisions of the Contract. The insurance companies shall waive their right of notification by the Owner of any change or modification of the Contract, or of decreased or increased work, or of the cancellation of the Contract, or of any other acts by Owner or its authorized employees or agents under the terms of the Contract. The waiver by the insurance companies shall in no way relieve the insurance companies of their obligations under this Contract.

5.05 Injury or Illness Reports

The Contractor shall file with the Owner and Architect/Engineer three (3) copies of employer's first report of injury or illness immediately following any incident requiring filing of said report during the prosecution of the Work under this Contract. The Contractor shall also furnish to the Owner and Architect/Engineer three (3) copies of the employer's first report of injury or illness involving any Subcontractor on this Project.

5.06 Patents

5.061 Except as otherwise provided in the Contract Documents, the Contractor shall assume all costs arising from the use of patented materials, equipment, devices or processes used on or incorporated in the Work, and agrees to indemnify and save harmless the Owner, Architect/Engineer and their duly authorized representatives or employees, from all suits at law, or

actions of every nature from or on account of the use of, any patented materials, equipment, devices or processes.

5.062 Should the Contractor, his officers, agents, servants or employees be enjoined from furnishing or using any invention, article, material or appliance supplied or required to be supplied or used pursuant to the provisions of the Contract Documents, Contractor shall promptly offer other articles, materials or appliances in lieu thereof, of equal efficiency, quality, finish, suitability, and market value, for review by the Architect/Engineer. If the Architect/Engineer should disapprove the offered substitutes and should elect, in lieu of a substitution, to have supplied, and to retain and use, any such invention, article, material or appliance as may by this Contract be required to be supplied, the Contractor shall pay such royalties and secure such valid licenses as may be requisite and necessary, then in that event the Architect/Engineer shall have the right to make such substitution, or the Owner may pay such royalties and secure such licenses and charge the cost thereof against any money due the Contractor from the Owner, or recover the amount thereof from him and his sureties notwithstanding that final payment under this Contract may have been made.

5.063 Except as otherwise provided in these Contract Documents, the Contractor shall pay all such royalties or other monies required to be paid as aforesaid.

5.07 Laws To Be Observed

5.071 The Contractor or Subcontractor warrants that he is familiar with and he shall comply with Federal, State and local laws, statutes, ordinances, rules and regulations and the orders and decrees of any courts or administrative bodies or tribunals in any manner affecting the performance of the Contract including without limitation Worker's Compensation Laws, minimum salary and wage statutes and regulations, laws with respect to permits and licenses and fees in connection therewith, laws regarding maximum working hours. No plea of misunderstanding or ignorance thereof will be considered.

5.071.1 Whenever required, the Contractor or Subcontractor shall furnish the Architect/Engineer with satisfactory proof of compliance with said Federal, State and local laws, statutes, ordinances, rules, regulations, orders, and decrees.

5.072 The Contractor shall keep himself fully informed of all existing and future federal, state, county and municipal laws, ordinances and regulations which in any manner affect those engaged or employed in the Work or the materials used in the Work or conduct of the Work or the rights, duties, powers or obligations of the Owner or of the Contractor or which otherwise affect the Contract, and of all orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. He shall at all times observe and comply with, and

shall cause all his agents, subcontractors and employees to observe and comply with all such laws, ordinances, regulations, orders and decrees and shall protect and indemnify the Owner and Architect/Engineer and all their officers, agents and employees against any claim, loss or liability arising or resulting from or based upon the violation of any such law, ordinance, regulation, order or decree, whether by himself or by his agents, Subcontractors or employees.

5.073 In conformity with Illinois Compiled Statutes 1992, 820 ILCS 130/1, the Contractor shall pay not less than the prevailing rate of wages as are on file with the Illinois Department of Labor. The Contractor will be required to comply with all the provisions, including Section 5, certified payroll, of An Act regulating rates of laborers, mechanics, and other workers employed in any public works by the State, county, city, or any public body of any political subdivision of any one under contract for public works. (Illinois Compiled Statutes 1992, 820 ILCS 130/1, as amended from time to time).

5.074 In conformity with Public Act 83-1472, "AN ACT concerning the distribution of certain federal grants and the employment of Illinois workers" (Illinois Compiled Statutes 1992, 30 ILCS 570/1), the Contractor shall, subject to the exceptions contained in Public Act 83-1472, employ only Illinois laborers on the Project.

5.075 In the employment and use of labor, the Contractor shall conform to "AN ACT to give preference to veterans of the United States military and naval service in appointments and employment upon public works, by or for the use of, the State or its political subdivisions," as amended (Illinois Compiled Statutes 1992, 330 ILCS 55/1).

5.076 The Illinois Steel Products Procurement Act (Public Act 83-1030) (Illinois Compiled Statutes 1992, 30 ILCS 565/1) governs the incorporation of all steel products into the Project.

5.077 In the event of the Contractor's non-compliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Human Rights Act (Illinois Compiled Statutes 1992, 775 ILCS 511-101) or the Rules and Regulations of the Illinois Department of Human Rights ("Department"), the Contractor may be declared ineligible for future contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, and the contract may be canceled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation. During the performance of this contract, the Contractor agrees as follows:

a. That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, marital status, national origin or ancestry, age, physical or mental handicap unrelated to

ability, or an unfavorable discharge from military services; and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.

b. That, if it hires additional employees in order to perform the Contract or any portion thereof, it will determine the availability (in accordance with the Department's Rules and Regulations) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.

c. That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, marital status, national origin or ancestry, age, physical or mental handicap unrelated to ability, or an unfavorable discharge from military service.

d. That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the Contractor's obligations under the Illinois Human Rights Act and the Department's Rules and Regulations. If any such labor organization or representative fails or refuses to cooperate with the Contractor in its efforts to comply with such Act and Rules and Regulations, the Contractor will promptly so notify the Department and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations thereunder.

e. The Contractor and each Subcontractor shall pay not less than the general prevailing rate of hourly wages for work of a similar character in the locality in which the Work is performed and not less than general prevailing rate of hourly wages for legal holidays and overtime work in the performance of Work under the Contract, as found by the Owner or the Illinois Department of Labor or determined by a court of review, pursuant to an act of the General Assembly of the State of Illinois approved June 26, 1941 as amended according to the Illinois Compiled Statutes 1992, 820 ILCS 130/1. Pursuant to Par. 39s-5 thereof the Contractor and each Subcontractor shall keep an accurate record showing the names and occupation of all laborers, workers and mechanics employed by them, and also showing the actual hourly wages paid to each such individual, which record shall be open at all reasonable hours to inspection by the Owner, its officers and agents, and to agents of the Illinois Department of Labor. The Contractor and each Subcontractor hereby agree, jointly and severally, to defend, indemnify and hold harmless the Owner from any

and all claims, demands, liens or suites of any kind or nature whatsoever (including suits for injunctive relief) by the Illinois Department of Labor under the Illinois Prevailing Wage Act, Illinois Compiled Statutes 1992, 820 ILCS 130/1, or by any laborer, worker or mechanic employed by the Contractor or the Subcontractor who alleges that he has been paid for his services in a sum less than prevailing wage rates required by Illinois law. The Owner agrees to notify the Contractor or Subcontractor of the pendency of any such claim, demand, lien or suit.

f. Each Bidder shall carefully examine the Occupational Safety and Health Act of 1970, published in May 1971, as issued by the Federal Register (OSHA), and the specific regulations governing procedures,

techniques, safety precautions, equipment design, and the configuration of the same as required under this Act and each Bidder agrees as evidenced by his submission of a Bid to comply with all terms of the Act and to perform and complete in a workmanlike manner all Work required in full compliance with said Act.

g. Each Bidder agrees as evidenced by his submission of a Bid to comply with all terms of the Equal Employment Opportunity Clause of the former Illinois Fair Employment Practices Commission (whose rules and regulations are continued in effect by Illinois Compiled Statutes 1992, 775 ILCS 519-101).

5.08 Provisions of Law

5.081 It is specifically provided that this Contract is subject to all the provisions of law regulating and controlling the performance of Work for the Owner, and that the rules of law shall prevail over any provision contained in any of the Contract Documents which may be in conflict thereto or inconsistent therewith. Each and every provision of law and clause required by law to be inserted in the Contract Documents shall be deemed to be inserted herein and the Contract Documents shall be read and enforced as though it were included herein, and if, through mistake or otherwise, such provision is not inserted, or is not correctly inserted, then upon application of either party, the Contract Documents shall forthwith be physically amended to make such insertion or correction.

5.082 By submitting a response, bidder/offeror/vendor agrees that venue for all disputes arising out of the solicitation process, including but not limited to judicial review of any protest decision, will be exclusively in the circuit court for the Eighteenth Judicial Circuit in DuPage County, Illinois and that Illinois law will control.

5.09 Deliveries to the Contractor

Delivery by the Owner or any of its agents or representatives to the Contractor of any drawings, samples, notices, letters, communications, or other things may be made by personal delivery to the Contractor; by

personal delivery to the Contractor's foreman or superintendent at the site of the Work; by delivery to the Contractor's business address specified in the bid or specified in a written notice of changed address delivered to the Owner, or by delivery to the Contractor's office at the site of the work. Delivery to the Contractor's above mentioned business address, or to the Contractor's office at the site of the Work, may be made either by personal delivery to such address or office or by depositing the thing to be delivered in the United States registered mail, postage prepaid, addressed to such address or office. The foregoing provisions of this Paragraph 5.09 are subject to the provisions of Article 7 of the Agreement.

5.10 Assignment of Contract

The Contract may not be assigned in whole or in part except upon the written consent of the Owner. Any assignment agreement shall be subject to review and approval by the Owner.

5.11 Protection of Persons and Property

The Contractor will be solely and completely responsible for conditions of the job site, and "Limit of Work" as shown in the Drawings and other Contract Documents including safety of all persons and property during performance of the Work. This requirement will apply continuously and not be limited to normal working hours. The Contractor shall furnish such watchmen, guards, fences, warning signs, lights and walkways, and shall take all other precautions as shall be necessary to prevent damage to person or property. All structures and improvements in the vicinity of the Work shall be protected by the Contractor, and if such property is damaged, injured or destroyed by Contractor, his employees, Subcontractors, agents or trespassers, it shall be restored to a condition as good as when he entered upon the Work.

Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall take all necessary precautions for safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

(a) all employees on the Work and other persons and organizations who may be affected thereby;

(b) all the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and

(c) other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and Underground Facilities not designated for removal, relocation or replacement in the course of construction.

5.2 Emergency Protection (by Contractor)

In any emergency affecting the safety of persons or property, the Contractor shall act to prevent damage, injury or loss. Any additional compensation or extension of time claimed by the Contractor on account of emergency work shall be determined as provided in Paragraph 6.05 for Change Orders.

5.3 Property Insurance

5.3.A Unless otherwise provided, the Contractor shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance in the amount of the completed value for the entire Work at the site on a replacement cost basis. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made or until no person or entity other than the Owner has an insurable interest in the Work required by this paragraph to be covered, whichever is earlier. This insurance shall include interests of the Owner, the Contractor, and Subcontractors in the Work.

5.3.B The Contractor shall file copies of such insurance policies with the Owner before the occurrence of an exposure to loss.

5.3.C Property insurance shall be on an all-risk policy form and shall insure against the perils of fire and extended coverage and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, flood and earthquake. Coverage shall also include false work, temporary buildings and debris removal. Coverage for other perils shall not be required unless otherwise provided in the Contract Documents.

5.3.D Unless otherwise provided in the Contract Documents, this property insurance shall cover portions of the Work stored off the site after written approval of the Owner at the value established in the approval, and also portions of the Work in transit.

5.3.E Loss of Use Insurance. The Owner, at the Owner's option, may purchase and maintain such insurance as will insure the Owner against loss of use of the Owner's property due to fire and other hazards, however caused. The Owner waives all rights of action against the Contractor for loss of use of the Owner's property, including consequential losses due to fire or other hazards however caused to the extent covered by insurance under this Subparagraph 5.3.E.

5.3.F Contractor's and Subcontractor's machinery, tools, equipment or property of similar kind which will not become a permanent part of the building or structure will not be covered under this builder's risk policy.

5.3.G Any loss insured under Subparagraph 5.3.A is to be adjusted with the Owner and made payable to the Owner as trustee for the insureds, as their interests may appear. The Contractor shall pay each Subcontractor a just share of any insurance moneys received by the Contractor.

6. PROGRESS AND COMPLETION OF WORK

6.01 Date of Commencement

6.011 Within ten (10) days after the receipt by the Contractor of the Notice to Proceed, a Pre-Construction Conference with the Architect/Engineer, Owner and Contractor shall be scheduled. The Contractor shall commence the Work within ten (10) days after the date of the Pre-Construction Conference.

6.012 Contractor shall notify Owner in writing 48 hours before starting any portion of the Work at different locations at the site during the performance of the Work. In case of a temporary suspension of the Work he shall give Owner twenty-four (24) hours prior written notice before resuming the Work.

6.02 Time of Completion

The Contractor shall promptly begin the Work and prosecute the same until the Work under the Contract shall be completed within the time requested by the provisions the Special or Supplemental Conditions and the Agreement, unless otherwise adjusted by Change Order after the Contractor submits for Owner's approval, a written request for change and a revised Contractor's Construction Schedule.

6.021 Failure to Complete the Work on Time

Should the Contractor fail to complete the work within the specified Contract Time or within such extended time as may be allowed, the Contractor shall be liable to the Owner for all costs incurred for engineering and inspection, and other expenses directly attributed by reason of the Contractor's failure to complete the work within the specified time.

Since the parties involved may be unable to agree as to the amount of the loss which would be suffered by the Owner and as it may be impractical to accurately compute the actual delay costs, the Contractor shall be liable to the Owner, not as a penalty but as liquidated damages, for the dollar amount stipulated in the Contractor's Bid for each and every calendar day after expiration of the Contract Time, during which any part of the Work required by the Drawings or Specifications remains incomplete and unacceptable to the Owner. The Owner will deduct these liquidated damages from any monies due or to become due to the Contractor from the Owner.

6.03 Equipment and Methods

The Work under the Contract shall be prosecuted with all materials, tools, machinery, apparatus and labor, and by such methods as are necessary to the complete execution of everything described, shown or reasonably implied in the Contract Documents. If at any time before the beginning or during the progress of the Work, any part of Contractor's plant or equipment or any of his methods of execution of the Work appear to the Architect/Engineer to be inefficient or inadequate to insure the required quality or rate of progress of the Work, he may advise the Contractor to increase or improve his facilities or methods and the Contractor shall comply promptly with such advice, but neither compliance with such advice nor failure of the Architect/Engineer to issue such advice shall relieve the Contractor from his obligation to secure the quality of the Work and the rate of progress required. The Contractor alone shall be responsible for the safety, adequacy and efficiency of his equipment and methods.

6.04 Unfavorable Weather and Other Conditions

6.041 During unfavorable weather and other unfavorable conditions the Contractor shall pursue only such portions of the Work as shall not be damaged thereby. No portions of the Work whose satisfactory quality or efficiency will be affected by an unfavorable condition shall be constructed while these unfavorable conditions exist unless, by special means or precautions, which must receive prior written approval from the Architect/Engineer, the Contractor shall be able to overcome them.

6.05 Change Orders

6.051 A Change Order signed by the Contractor indicates his agreement therewith, including the adjustment in the Contract Sum or the Contract Time.

6.052 The Owner, without invalidating the Contract, may order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, and the Contract Sum and the Contract Time shall be adjusted accordingly. All such changes in the Work shall be authorized by Change Order, and shall be performed under the applicable conditions of the Contract Documents.

6.053 The cost or credit to the Owner resulting from a change in the Work shall be determined in one or more of the following ways:

a. by mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data as required by either the Architect/Engineer or Owner to permit evaluation;

b. by the applicable unit prices stated in the Contract Documents and if none, then mutually agreed upon by Owner and Contractor prior to performance of the Work covered by such Change Order;

c. by cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or

d. by the method provided in subparagraph 6.054.

6.054 If none of the methods set forth in Clauses 6.053 a, b, or c is agreed upon, the Contractor, provided he receives a written order/change directive signed by the Owner, shall promptly proceed with the Work involved. The cost of such Work shall then be determined by the Architect/Engineer on the basis of the reasonable expenditures and savings of those performing the Work attributable to the change, including, in the case of an increase in the Contract Sum, work that is to be paid for on a time and material basis for **extra or change order work only**. The Contractor will be paid the costs for labor, materials, and equipment plus a markup of fifteen percent (15%) to the cost of labor, fifteen percent (15%) to the cost of materials, and fifteen percent (15%) to the equipment rental. These markups shall constitute full compensation for overhead and profit. It is understood that labor, materials, and equipment may be furnished by Contractor or by a subcontractor or by others on behalf of Contractor. When the work is performed by forces other than Contractor's organization, Contractor shall reach agreement with such other forces as to the distribution of the payment made by Owner for such work and no additional payment therefore will be made by Owner. The Contractor shall only be entitled to 5% markup for the subcontract. This markup shall include the costs for all overhead, profit, bonds, insurance and any other costs associated by the use of a subcontractor. the contractor must submit a copy of the subcontract prior to executing the work. In such case, and also under Clauses 6.053c and 6.053d above, the Contractor shall keep and present, in such form as the Architect/Engineer may require, an itemized accounting from the Contractor which shall include but not be limited to any supporting data from the respective Subcontractor in a Change Order. Unless otherwise provided in the Contract Documents, cost shall be limited to the following: cost of materials, and cost of delivery; cost of labor, including social security, old age and unemployment insurance, and fringe benefits required by agreement or custom; workers' compensation insurance; bond premiums; rental value of equipment and machinery; and the additional costs of supervision and field office personnel directly attributable to the change. Pending final determination of cost to the Owner, payments on account shall be made on the Architect/Engineer's Certificate for Payment. The amount of credit to be allowed by the Contractor to the Owner for any deletion or change which results in a net decrease in the Contract Sum will be the amount of the actual net cost as confirmed by the Architect/Engineer.

When both additions and credits covering related Work or substitutions are involved in any one change, the allowance for overhead and profit shall be figured on the basis of the net increase, if any, with respect to that change.

6.054(a) Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, workers' or workmen's compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. Such employees shall include superintendents and foremen at the site. The expenses of performing Work after regular working hours, on Saturday, Sunday or legal holidays, shall be included in the above to the extent authorized by Owner.

6.054(b) Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and all returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

6.054(c) Payments made by Contractor to the Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from Subcontractors acceptable to Contractor and shall deliver such bids to Owner who will then determine, with the advice of the Architect/Engineer, which bids will be accepted. If a subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work Plus a Fee, the Subcontractor's Cost of the Work shall be determined in the same manner as Contractor's Cost of the Work. All subcontracts shall be subject to the other provisions of the Contract Documents insofar as applicable.

6.054(d) Cost of special consultants (including but not limited to engineers, Architect/Engineers, testing laboratories, surveyors, attorneys and accountants) employed for services specifically related to the Work.

6.054(e) Supplemental costs including the following:

6.054(e)(i) The proportion of necessary transportation, travel and subsistence expenses of Contractor's employees incurred in discharge or duties connected with the Work.

6.054(e)(ii) Cost, including transportation and maintenance of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost less market value of such items used but not consumed which remain the property of Contractor.

6.054(e)(iii) Rentals of all construction equipment and machinery and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of the Architect/Engineer, and the costs of transportation, loading, unloading, installation, dismantling and removal thereof-all in accordance with terms of said rental agreements. The rental of any such equipment, machinery or parts shall cease when the use thereof is no longer necessary for the Work.

6.054(e)(iv) Sales, consumer, use or similar taxes related to the Work, and for which Contractor is liable, imposed by Laws and Regulations.

6.054(e)(v) Deposits lost for causes other than negligence of Contractor, any Subcontractor or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

6.054(e)(vi) Losses and damages (and related expenses), not compensated by insurance or otherwise, to the Work or otherwise sustained by Contractor in connection with the performance and furnishing of the Work (except losses and damages within the deductible amounts of property insurance established by Owner in accordance with paragraph 5.9), provided they have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's Fee.

6.054(e)(vii) The cost of utilities, fuel and sanitary facilities at the site.

6.054(e)(viii) Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage and similar petty cash items in connection with the Work.

6.054(e)(ix) Cost of premiums for additional Bonds and insurance required because of changes in the Work and premiums for property insurance coverage within the limits of the deductible amounts established by Owner in accordance with Article 5.

6.055 The term Cost of the work shall not include any of the following:

6.055(a) Payroll costs and other compensation of Contractor's officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by Contractor whether at the site or in Contractor's principal or a branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in paragraph 6.04(a) or specifically covered by paragraph 6.054(d) all of which are to be considered administrative costs covered by the Contractor's Fee.

6.055(b) Expenses of Contractor's principal and branch offices other than Contractor's office at the site.

6.055(c) Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

6.055(d) Cost of premiums for all Bonds and for all insurance whether or not Contractor is required by the Contract Documents to purchase and maintain the same (except for the cost of premiums covered by subparagraph 6.054 (e) (ix) above).

6.055(e) Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied and making good any damage to property.

6.055(f) Other overhead or general expense cost of any kind and the costs of any item not specifically and expressly included in paragraph 6.054.

6.06 Claims and Disputes

6.061 Definition. A Claim is a demand or assertion by one of the parties seeking, as a matter of right, adjustment or interpretation of Contract terms, payment of money, extension of time or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. Claims must be made by written notice. The responsibility to substantiate Claims shall rest with the party making the Claim.

6.062 Decision of Architect/Engineer. Claims, including those alleging an error or omission by the Architect/Engineer, shall be referred initially to the Architect/Engineer for decision. A decision by the Architect/Engineer shall be required as a condition precedent to litigation of a claim between the Contractor

and Owner as to all such matters arising prior to the date final payment is due, regardless of (1) whether such matters relate to execution and progress of the Work or (2) the extent to which the Work has been completed. The decision by the Architect/Engineer in response to a Claim shall not be a condition precedent to litigation in the event (1) the position of Architect/Engineer is vacant, (2) the Architect/Engineer has not received evidence or has failed to render a decision within 30 days after evidence is received, (3) the Architect/Engineer has failed to take action required under Subparagraph 6.066 of these General Conditions within 30 days after the Claim is made, (4) 60 days have passed after the Claim has been referred to the Architect/Engineer or (5) the Claim relates to a mechanic's lien.

6.063 Time Limits on Claims. Claims by either party must be made within 20 days after occurrence of the event giving rise to such Claim or within 20 calendar days after the claimant first recognizes the condition giving rise to the Claim, whichever is later. Claims must be made by written notice. An additional Claim made after the initial Claim has been implemented by Change Order will not be considered unless submitted in a timely manner.

6.064 Continuing Contract Performance. Pending final resolution of a Claim, unless otherwise agreed in writing the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

6.065 Waiver of Claims: Final Payment. The making of final payment shall constitute a waiver of Claims by the Owner except those arising from:

1. liens, unsettled claims, security interests or encumbrances arising out of the Contract;
2. failure of the Work to comply with the requirements of the Contract Documents;
3. terms of any warranties required by the Contract Documents;
4. latent defects in the Work which do not become apparent during the period of any guarantee made or given with respect to the Work.

6.066 Resolution of Claims and Disputes

6.067 The Architect/Engineer will review Claims and take one or more of the following preliminary actions within ten days of receipt of a Claim: (1) request additional supporting data from the claimant, (2) submit a schedule to the parties indicating when the Architect/Engineer expects to take action, (3) reject the Claim in whole or in part, stating reasons for rejection, (4) recommend approval of the Claim by the other party or (5) suggest a compromise. The Architect/Engineer may also, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim.

6.068 If a Claim has been resolved, the Architect/Engineer will prepare or obtain appropriate documentation.

6.069 If a Claim has not been resolved, the party making the Claim shall, within ten days after the Architect/Engineer's preliminary response, take one or more of the following actions: (1) submit additional supporting data requested by the Architect/Engineer, (2) modify the initial Claim or (3) notify the Architect/Engineer that the initial Claim stands.

6.070 If a Claim has not been resolved after consideration of the foregoing and of further evidence presented by the parties or requested by the Architect/Engineer, the Architect/Engineer will notify the parties, in writing, that the Architect/Engineer's decision will be made within seven days, which decision shall be final and binding on the parties but subject to the results of any litigation later commenced by any party. In any such litigation the parties have the right to have a *de novo* determination of any issues but any decision by the Architect/Engineer shall be admissible in evidence, as bearing on the issues but not determinative thereof. Upon expiration of such time period, the Architect/Engineer will render to the parties the Architect/Engineer's written decision relative to the Claim, including any change in the Contract Sum or Contract Time or both. If there is a surety and there appears to be a possibility of a Contractor's default, the Architect/Engineer may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

6.07 Claims for Additional Cost

6.071 If the Contractor wishes to make a claim for an increase in the Contract Sum, he shall give the Architect/Engineer written notice thereof within twenty days after the occurrence of the event giving rise to such claim. This notice shall be given by the Contractor before proceeding to execute the Work, except in an emergency endangering life or property in which case the Contractor shall proceed in accordance with Paragraph 5.12. No such claim shall be valid unless so made. Any change in the Contract Sum resulting from such claim shall be authorized by Change Order.

6.072 If the Contractor claims that additional cost is involved because of, but not limited to, (1) any written interpretation pursuant to Subparagraph 3.028 (2) any order by the owner to stop the Work pursuant to Paragraph 3.036 where the Contractor was not at fault, (3) any written order for a minor change in the Work issued pursuant to Paragraph 6.08, the Contractor shall make such claim as provided in Subparagraph 6.071.

6.08 Minor Changes in the Work

The Architect/Engineer will have authority to order minor changes in the Work not involving an adjustment in the Contract Sum or an extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes shall be effected by written field order concurrently delivered to Owner and Contractor by Architect/Engineer, and shall be binding on the Owner and the Contractor unless the Owner shall object thereto within twenty-four (24) hours after Owner's receipt of such order. The Contractor shall carry out such written orders promptly.

6.09 Uncovering of Work

6.091 If any portion of the Work should be covered contrary to the request of the Architect/Engineer or to requirements specifically expressed in the Contract Documents, it must, if required in writing by the Architect/Engineer, be uncovered for his observation and shall be replaced at the Contractor's expense.

6.092 If any other portion of the Work has been covered which the Architect/Engineer has not specifically requested to observe prior to being covered, the Architect/Engineer may request to see such Work and it shall be uncovered by the Contractor. If such Work be found in accordance with the Contract Documents, the cost of uncovering and replacement shall, by appropriate Change Order, be charged to the Owner. If such Work be found not in accordance with the Contract Documents, the Contractor shall pay such costs unless it be found that this condition was caused by the Owner or a separate contractor as provided in Paragraph 3.037, in which event the Owner shall be responsible for the payment of such costs.

6.10 Owner's Right to Stop Work/Correction of Work By Contractor or Owner

6.101 The Contractor shall promptly correct all Work rejected by the Architect/Engineer as defective or as failing to conform to the Contract Documents whether observed before or after Substantial Completion and whether or not fabricated, installed or completed. The Contractor shall bear all costs of correcting such rejected Work, including compensation for the Architect/Engineer's additional services made necessary thereby.

6.102 If, within one (1) year after Final Acceptance by the Owner, or within such longer period of time as may be prescribed by law or by the terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be defective or not in accordance with the Contract Documents, the Contractor shall correct it promptly after receipt of a written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. this obligation shall survive termination of the Contract. The Owner shall give such notice promptly after discovery of the condition.

6.103 The Contractor shall remove from the site all portions of the Work which are defective or non-conforming and which have not been corrected under Subparagraphs 6.101 and 6.102.

6.104 If the Contractor fails to correct defective or non-conforming Work as provided in Subparagraphs 6.101 and 6.102, the Owner may correct it in accordance with Paragraph 6.106 herein below.

6.105 Owner's Right to Stop the Work

This is provided for in Subparagraphs 3.036a and 3.036b.

6.106 Owner's Right to Carry Out the Work

This is provided for in Paragraph 3.037.

6.11 Delays

6.111 Avoidable Delays

a. Avoidable delays in the prosecution or completion of the Work shall include all delays which might have been avoided by the exercise of care, prudence, foresight, or diligence on the part of the Contractor.

b. Delays in the prosecution of parts of the Work which may in themselves be unavoidable but do not necessarily prevent or delay the prosecution of other parts of the Work nor the completion of the whole Work within the time herein specified; reasonable loss of the time resulting from the necessity of submitting drawings to the Architect/Engineer for approval and from the making of surveys, measurements, and inspections; and such interruptions as may occur in the prosecution of the Work on account of the reasonable interference of other contractors employed by the Owner, which do not necessarily prevent the completion of the whole Work within the time herein specified, will be deemed avoidable delays within the meaning of this Contract.

6.112 Unavoidable Delays

a. Unavoidable delays in the prosecution or completion of the Work under this Contract shall include all delays which may result through causes beyond the control of Contractor and which he could not have provided against by the exercise of care, prudence, foresight or diligence. Order issued by Owner changes the amount of work to be done, the quantity of material to be furnished, or the manner in which the Work is to be prosecuted, and failure of Owner to provide rights-of-way will be considered unavoidable delays so far as they necessarily interfere with Contractor's completion of the Work. Delays due to adverse weather conditions will not be regarded as unavoidable delays as

Contractor should understand that such conditions are to be expected and plan his work accordingly.

6.113 Notice of Delays

a. Whenever Contractor foresees any delay in the prosecution of the Work and, in any event, immediately upon the occurrence of any delay, he shall notify Architect/Engineer in writing of the probability of the occurrence of such delay and its cause in order that Architect/Engineer may determine whether the delay is to be considered avoidable or unavoidable, how long it continues, and to what extent the prosecution and completion of the Work are to be delayed thereby.

b. After the completion of any part or the whole of the Work, Architect/Engineer, in approving the amount due Contractor, will assume that any and all delays which have occurred in its prosecution and completion have been avoidable delays, except such delays as shall have been called to the attention of Architect/Engineer at the time of its occurrence as being an unavoidable delay.

6.12 Extension of Time

6.121 For Unavoidable Delays

a. For delays which are unavoidable, as determined by Architect/Engineer, Contractor will be allowed, if he applies for the same, an extension of time beyond the time specified for completion, proportionate to such unavoidable delay or delays, within which to complete the Contract, and Contractor will not be charged, as approved by change order, because of any extension of time for such unavoidable delay, any engineering and inspection costs as are charged in the case of extensions of time for avoidable delays.

6.122 For Avoidable Delays

a. If the Work is not finished and completed by Contractor, in all parts and in accordance with all requirements, within the time specified for completion elsewhere in the Contract Documents, including extensions of time granted because of unavoidable delay; or if at any time prior to the expiration of said time it should appear to Architect/Engineer that Contractor will be unable to finish and complete the Work as aforesaid within said time; and if Contractor's failure or inability to finish and complete the Work as aforesaid within said time should be due, as determined by Architect/Engineer, to avoidable delay or delays, then in that event, Architect/Engineer, if it finds such is to be in the best interests of Owner, he may, but will not be required to, grant to Contractor an extension or extensions of time within which to finish and complete all the Work.

b. In addition, if the time limit be so extended, Owner shall charge to Contractor, and may deduct from the final payment for the Work, any amount of liquidated damages elsewhere provided for in the Contract Documents, plus all Architectural, Engineering, Resident Engineering and inspection expenses incurred by Owner

in connection with the Work during the period of such extension of extensions, except that the cost of final surveys and preparation of final estimates will not be included in such charges.

6.123 Effect of Extension of Time

The granting of any extension of time on account of delays which in the judgment of Architect/Engineer are avoidable delays shall in no way operate as a waiver on the part of Owner of its rights under this Contract.

6.13 Proof of Compliance with Contract

In order that Architect/Engineer may determine whether Contractor has complied with those requirements of the Contract with which compliance is not readily ascertainable through inspection and tests of the work and materials, Contractor shall, at any time requested, submit to Architect/Engineer properly authenticated documents or other satisfactory evidence as proof of his compliance with such requirements.

6.14 No Contractor's Damages

The Contractor shall not be entitled to payment or compensation of any kind from the Owner for any alleged damages, costs or expenses whatsoever, including but not limited to costs of acceleration, arising in any manner because of hindrance or delay from any cause whatsoever, whether such hindrances or delay be reasonable, foreseeable or avoidable. The Contractor shall be entitled to reasonable extension in Contract Time when such delays arise from the acts of the Owner. The Contractor shall not be entitled to recover from the Owner, and hereby waives all rights which it or its Subcontractors or any other person may otherwise have to recovery, any costs, expenses and damages of any nature which it, or its Subcontractors or any other person, may suffer by reason of delay in the performance of the Work or any portion thereof, the extension of Contract Time granted herein being the Contractor's sole and exclusive remedy.

6.15 Tests

6.151 If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any portion of the Work to be inspected, tested or approved, the Contractor shall give the Architect/Engineer timely notice of its readiness so the Architect/Engineer may observe such inspection, testing or approval. The Owner shall bear the costs of the aforesaid inspections, tests or approvals when conducted by employees of any public authority and, subject to the provisions of Subparagraph 6.152, Contractor shall bear the costs of all inspections, tests or approvals conducted by an independent third party, whether required by the Contract Documents, laws, ordinances, rules, regulations or order of any public authority or otherwise.

6.152 If the Architect/Engineer determines that any Work requires special inspection, testing or approval which Subparagraph 6.151 does not include, he will, upon written authorization from the Owner, instruct the Contractor to order such special inspection, testing or approval, and the Contractor shall give notice as provided in Subparagraph 6.151. If such special inspection or testing reveals a failure of the Work to comply with the requirements of the Contract Documents, the Contractor shall bear all costs thereof, including compensation for the Architect/Engineer's additional services made necessary by such failure; otherwise the Owner shall bear such costs, and an appropriate Change Order shall be issued. Contractor shall be responsible for and shall pay all costs in connection with any inspection or testing required in connection with Owner's or Architect/Engineer's acceptance of a Supplier of materials or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

6.153 Required certificates of inspection, testing or approval shall be secured by the Contractor and promptly delivered by him to the Architect/Engineer.

6.154 If the Architect/Engineer is to observe the inspections, tests or approvals required by the Contract Documents, he will do so promptly and, where practicable, at the source of supply.

6.16 Schedule of Values and Initial Sworn Statement

6.161 Before the first Application for Payment, the Contractor shall submit to the Architect/Engineer a schedule of values allocated to the various portions of the Work, shall be prepared in such form and supported by such data to substantiate its accuracy as the Architect/Engineer may require. This schedule, unless objected to by the Architect/Engineer, shall be used only as a basis for the Contractor's Applications for Payment.

6.162 Prior to commencement of the Work, the Contractor shall deliver to the Architect/Engineer and the Owner a Contractor's sworn statement, duly executed and acknowledged and in form satisfactory to the Owner, listing the names and addresses of all Subcontractors and the amounts due or to become due to each such subcontract, together with a similar sworn statement from each Subcontractor.

6.17 Applications for Payment

6.171 Applications for Payment shall be accompanied by a duly executed and acknowledged sworn statement showing all Subcontractors with whom the Contractor has entered into subcontracts, the amount of each such subcontract, the amount requested for any Subcontractor in the requested progress payment and the amount to be paid to the Contractor from such progress payment, together with similar sworn statements from all Subcontractors.

6.172 If approved in advance by Owner, payments will be made on account of materials or equipment not incorporated in the Work but delivered and suitably stored at the site with adequate protection from the elements and pilferage and, if approved in advance by the Owner, payments may similarly be made for materials or equipment suitably stored at some other location with adequate protection from the elements and pilferage. Payments for materials or equipment stored on or off the site shall be conditioned upon submission by the Contractor of bills of sale or such other procedures satisfactory to the Owner to establish the Owner's title to such materials or equipment or otherwise protect the Owner's interest, including applicable insurance and transportation to the site for those materials and equipment stored off the site.

6.18 Certificates for Payment

6.181 The Architect/Engineer will, within seven days after receipt of the Contractor's Application for Payment, either issue a Certificate for Payment to the Owner, with a copy to the Contractor, for such amount as the Architect/Engineer determines is properly due, or notify the Contractor in writing his reasons for withholding a Certificate for Payment as provided in paragraph 6.3.

6.182 The issuance of a Certificate for Payment shall constitute a representation by the Architect/Engineer to the Owner, based on his inspections at the site as provided in Subparagraph 3.023 and the data comprising the Application for Payment, that the Work is being diligently prosecuted and the quality, design and construction of the Work are in accordance with the Contract Documents (subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to the results of any subsequent tests required by or performed under the Contract Documents, to minor deviations from the Contract Documents correctable prior to completion and to any specific qualifications stated in his Certificate for Payment); and that the Contractor is entitled to payment in the amount certified. However, the issuance of a Certificate for Payment shall not be a representation that the Architect/Engineer has reviewed construction means, methods, techniques, sequences or procedures.

6.19 Progress Payments

6.191 Based upon Applications for Payment submitted to the Architect/Engineer by the Contractor and Certificates for Payment issued by the Architect/Engineer, the Owner shall make progress payments on account of the Contract Sum to the Contractor for the period ending the Fifteenth (15th) day of the month as follows:

a. Not later than thirty (30) days following Owner's receipt of said Application for Payment and Certificate for Payment from the Architect/Engineer, Owner shall pay ninety percent (90%) of the portion of the Contract Sum properly allocable to labor, materials

and equipment incorporated in the Work and ninety percent (90%) of the portion of the Contract Sum properly allocable to materials and equipment suitably stored at the site or at some other location pursuant to approval of Owner pursuant to Paragraph 6.172, for the period covered by the Application for Payment, less the aggregate of previous payments made by the Owner.

b. On or before the last day of each month, the Contractor shall deliver to the Architect/Engineer an application for progress payment or final payment, as the case may be, showing:

1. The total amount of previous applications for payment.
2. The amount requested in the current application for payment which shall be ninety percent (90%) of the amount which is properly allocable to the work performed and materials

furnished for the incorporated into the Work during the period ending the fifteenth (15th) day of such month.

3. The amount necessary to complete the Work.

6.192 Upon receipt of payment from the Owner, the Contractor shall promptly pay to each Subcontractor with whom he has a contract, the amount to which said Subcontractor is entitled, reflecting the percentage actually retained, if any, from payments to the Contractor on account of such Subcontractor's Work. The Contractor shall, by an appropriate agreement with each of his Subcontractors, require each said Subcontractor to make payments to his Subcontractors in similar manner.

6.193 The Architect/Engineer may, on request and at his discretion, furnish to any Subcontractor, if practicable, information regarding the percentages of completion or the amounts applied for by the Contractor and the action taken thereon by the Architect/Engineer on account of Work done by such Subcontractor.

6.194 Neither the Owner nor the Architect/Engineer shall have any obligation to pay or to see the payment of any moneys to any Subcontractor except as may otherwise be required by law.

6.195 No Certificate for a Payment, nor any payment, nor any partial or entire use or occupancy of the Project by the Owner, shall constitute an acceptance of any Work not in accordance with the Contract Documents.

6.196 Title to all portions of the Work, materials and equipment covered by a progress payment shall pass to Owner upon installation of the same subject to any lien rights provided by the laws of Illinois. This provision shall not relieve the Contractor from the responsibility under the Contract for all work, materials and equipment installed and/or upon which payments have been made or for the restoration of all damaged work or as waiving the

right of Owner to require fulfillment of all terms of the Contract.

6.197 The Contractor shall provide the Owner on a monthly basis a written and bound project report consisting of a work summary for work completed by each trade during the month, construction photographs, submittal log, requests for information, monthly updated construction project schedule, and Change Order log.

6.20 Lien Waivers

6.201 Partial Lien Waivers: The Contractor's partial lien waiver, for the full amount of the payment, shall accompany the first Application Payment. Each subsequent Application for Payment shall be accompanied by the Contractor's partial waiver and by partial waivers from all Subcontractors who were included in the immediately preceding Application for Payment, to the extent of that payment (unless Owner

requires their partial waivers of lien for all of them to be included in the current Application for Payment to the extent of the amounts thereof).

6.202 Final Lien Waivers: The Contractor's request for final payment shall include final lien waivers from all Subcontractors for the full amount of their contracts.

6.30 Payments Withheld

6.301 The Architect/Engineer may decline to certify payment and may withhold his Certificate in whole or in part, to the extent necessary to protect the Owner, if in his opinion he is unable to make representations to the Owner as provided in Subparagraph 6.302. If the Architect/Engineer is unable to make representations to the Owner as provided in Subparagraph 6.182 and to certify payment in the amount of the Application for Payment, he will notify the Contractor as provided in Subparagraph 6.181. If the Contractor and the Architect/Engineer cannot agree on a revised amount, the Architect/Engineer will promptly issue a Certificate for Payment for the amount for which he is able to make such representations to the Owner. The Architect/Engineer may also decline to certify payment or, because of subsequently discovered evidence or subsequent observations, he may nullify the whole or any part of any Certificate for Payment previously issued, to such extent as may be necessary to protect the Owner from the loss because of:

- a. Defective Work not remedied,
- b. Third party claims filed or reasonable evidence indicating probable filing of such claims,
- c. Failure of the Contractor to make payments promptly to Subcontractors or for labor, materials or equipment,

- d. Evidence that the Work cannot be completed for the unpaid balance of the Contract Sum,
- e. Damage to the Owner or another contractor,
- f. Evidence that the Work will not be completed within the Contract Time,
- g. Unsatisfactory prosecution of the Work by the Contractor, or
- h. Breach by the Contractor of any provisions of the Contract Documents.

6.302 When the above grounds in Subparagraph 6.301 are removed, payment shall be made for amounts withheld because of them. The Owner shall not be deemed in default by reason of withholding payment while any of the above grounds remain uncured.

6.40 Substantial Completion

6.401 When the Contractor considers that the Work has reached Substantial Completion, the Contractor shall prepare and submit to the Architect/Engineer a comprehensive list of items to be completed or corrected. The Contractor shall proceed promptly to complete and correct items on the list. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. Upon receipt of the Contractor's list, the Architect/Engineer will make an inspection to determine whether the Work has reached Substantial Completion. If the Architect/Engineer's inspection discloses any item, whether or not included on the Contractor's list, which is not in accordance with the requirements of the Contract Documents, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect/Engineer. The Contractor shall then submit a request for another inspection, at cost to the Contractor, by the Architect/Engineer to determine whether the Work has reached Substantial Completion. When the Work has reached Substantial Completion, the Architect/Engineer will prepare a Certificate of Substantial Completion which shall establish the date of Substantial Completion, and shall fix the time within which the Contractor shall finish all items on the list accompanying the Certificate of Substantial Completion which shall be in the form of the specimen contained in the Project Manual. The Contractor shall cease to be responsible, and the Owner shall become responsible, for security, maintenance, heat utilities, damage to the work and insurance upon Final Acceptance. Warranties required by the Contract Documents shall commence on the date of Final Acceptance of the Work.

6.50 Final Completion and Final Payment

6.501 Upon receipt by Owner and Architect/Engineer of the Contractor's Certificate of Final Completion (in the form of the specimen contained in the Project Manual)

and upon receipt by Architect/Engineer of Contractor's final Application for Payment, the Architect/Engineer will promptly make an inspection of the Work and, when he finds the Work, including all "punchlist" items, had been completed and performed in accordance with the requirements of the Contract Documents, he will promptly issue the Architect/Engineers' Certificate for Final Payment of Contractor in the form of the specimen included in the Project Manual. The Architect's/Engineer's Certificate For Final Payment of Contractor will constitute a further representation that the conditions precedent to the Contractor's being entitled to final payment as set forth in Subparagraph 6.502 have been fulfilled.

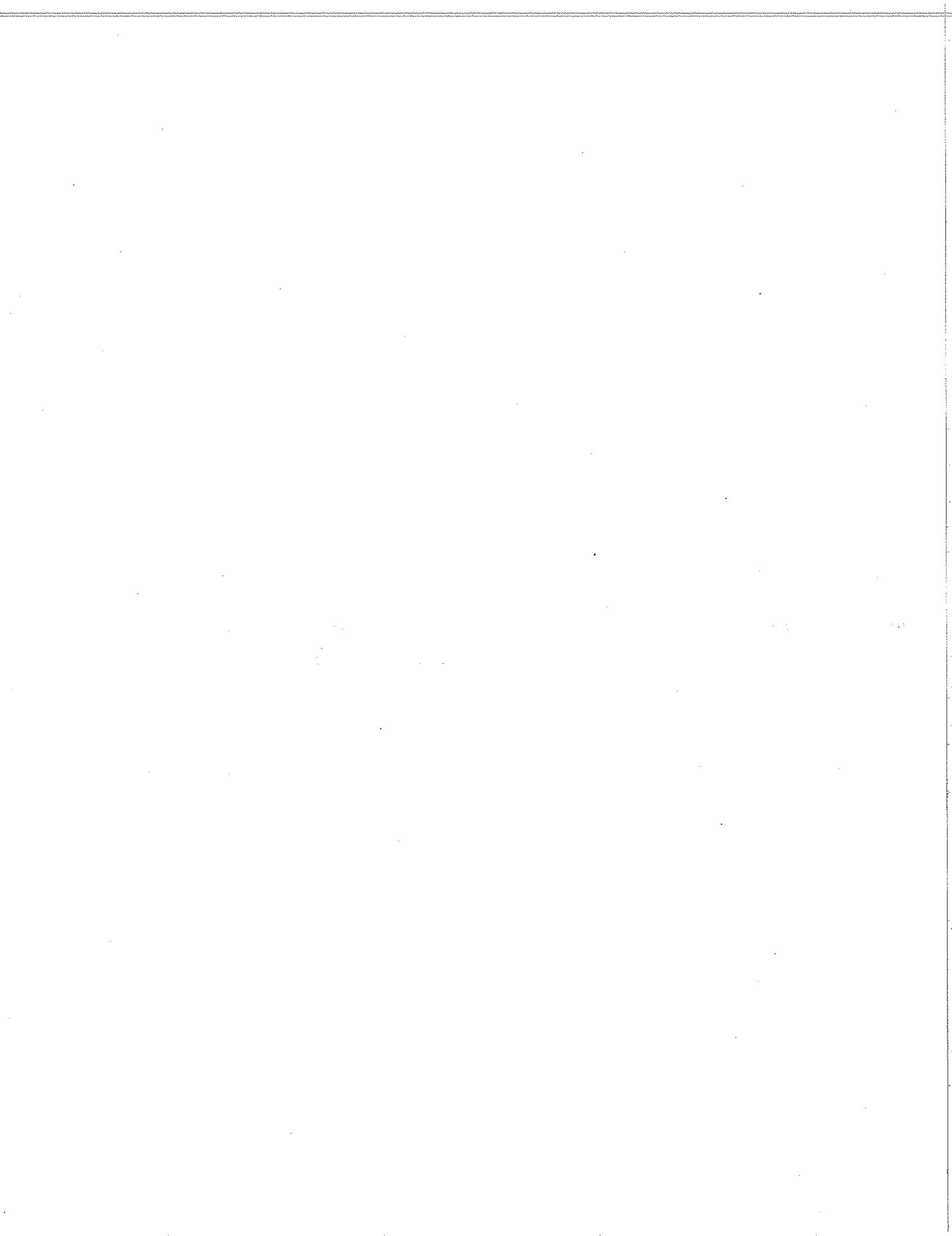
6.502 The final payment to the Contractor shall not become due until: (i) the Contractor submits to the Architect/Engineer in form and substance satisfactory to the Owner, (a) an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or his property might in any way be responsible, have been paid or otherwise satisfied, (b) consent of surety of Contractor, if any, to final payment, (c) final prints for record drawing use marked by Contractor with record information as set forth in the Contract Documents, and (d) a final Contractor's sworn statement from the Contractor duly executed and acknowledged showing all Subcontractors to be fully paid, and similar final sworn statements from Subcontractors; and (ii) Owner shall have delivered jointly to the Architect/Engineer and the Contractor, a written instrument accepting the Architect/Engineer's Certificate of Final Completion without condition or reservation. If any Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify Owner against any such lien. If any such lien remains unsatisfied after all payments are made and is not bonded over as provided in the previous sentence, the Contractor shall promptly pay to the Owner all moneys that the latter may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

6.503 The acceptance of final payment shall constitute a waiver of all claims by the Contractor except those previously made in writing and identified by the Contractor as unsettled at the time of the final Application for Payment.

7. APPLICABLE LAWS AND STATUTES OF LIMITATIONS

7.1 This Agreement shall be governed by the laws of the State of Illinois and any applicable provisions of grant funding imposed by the granting agency.

END OF GENERAL CONDITIONS



COUNTY OF DUPAGE, ILLINOIS
CAMPUS BUILDING MANAGEMENT SYSTEM UPGRADE
BID # 11-054
SPECIAL CONDITIONS

ADDENDUM AND SUPPLEMENT TO REQUEST:

If it becomes necessary to revise any part of this contract or if additional data is necessary to enable the exact interpretation of provisions of this request, revisions will be provided to all Contractors who receive the initial bid. If revisions are necessary the revisions will be provided only to those Contractors who will have requested and received contract documents.

BASIS OF AWARD:

Contract will be awarded to lowest responsive, responsible bidder based upon the lowest Total Bid. The County of DuPage reserves the right to increase or decrease the quantities and eliminate items shown herein to correspond with Departmental budgetary allowances; the actual Contract award amount will be determined by the County based upon the items selected.

CANCELLATION:

The County reserves the right to cancel the whole or any part of this contract (1) upon 120 day written notice, without cause, or (2) upon 30 day written notice for due to failure by the Contractor to carry out any obligation, term or condition of this contract. The County will issue written notice to the Contractor for acting or failing to act as in any of the following:

- a) The Contractor provides material that does not meet the specifications of this contract;
- b) The Contractor fails to adequately perform the services set forth of this contract;
- c) The Contractor fails to complete the work required or to furnish the materials required within the time stipulated in the contract;
- d) The Contractor fails to progress in the performance of this contract and/or gives the County reason to believe that the Contractor will not or cannot perform the requirements of the contract.

Upon receipt of the written notice of concern, the Contractor shall have ten (10) days to provide a satisfactory, written response to the County. Failure on the part of the Contractor to adequately address all issues of concern may result in the County resorting to any single or combination of the following remedies:

- a) Cancel the contract;
- b) Reserve all rights or claims of damage for breach or any covenants of the contract;
- c) Perform any test or analysis on materials for compliance with the specifications of this contract. If the results of any test or analysis find a material non-compliant with the specifications, the actual expense of testing shall be borne on the Contractor.

COMMENCEMENT OF WORK:

The successful Contractor must not commence any billable work prior to the County's execution of the contract, issuance of a purchase order or until all required documents have been submitted. Work done prior to these circumstances shall be at the Contractor's risk.

COUNTY AUTHORIZED REPRESENTATIVE:

The County authorized representatives regarding all technical aspects of this project is Bob Liljigren reachable at (630) 407-6806.

ETHICS DISCLOSURE:

On January 12, 2010, the DuPage County Board adopted amendments to Ordinance OFI-003B-04, the DuPage County Ethics Ordinance.

Section 2-417 "Contractor Disclosure", requires that certain information be provided by vendors who contract with or are seeking to contract with the County to provide goods or services.

All requisitions and change orders require that the vendor provide the most current information as detailed on the "Vendor Ethics Disclosure Statement" form.

The Vendor Ethics Disclosure Statement and instructions can be found on the next page and on the County's Internet site under Contractor Forms in the Procurement section. The most current version of the form should always be utilized. There is also another form for additional pages; all pages are Adobe fillable forms.

Continuing Disclosure: It is the contractor/vendor's responsibility to update contribution information on an ongoing basis during the life of the contract. The vendor is required to submit an updated Ethics Disclosure Statement to the user department, any time contributions are made to the Chairman or County Board Members subsequent to the most recent authorized contract action.

Failure to Comply: Failure to provide the requested information will at minimum delay awarding of the contract and could result in the selected vendor being disqualified as non-responsive and non-responsible.

Providing fraudulent information on the Vendor Ethics Disclosure Statement may result in a Class 3 Felony.

Contribution: A gift, subscription, dues, loan, advance or deposit of money or anything of value, including services, knowingly received in connection with the nomination for election or election of any person to County office.

Gift: Any gratuity, discount, entertainment, hospitality, loan, forbearance, or other tangible or intangible item having a fair cash market value including but not limited to cash, food, drink.

Multi-year contracts: Those contracts with a duration greater than 12 months, require annual updates, to be filed by the vendor with the user department, and forwarded to Procurement. The reporting period should be through December 31st of the current year, and received by the user department with 10 business days of that date.

Prohibited Source: Any person or entity who (i) is seeking official action by the Chairman, County Board member or in the case of an employee, by the employee or by the Chairman or County Board member, or another employee directing that employee; (ii) does business or seeks to do business with the Chairman, County Board member or employee (iii) conducts activities regulated by the Chairman, County Board member or employee (iv) has interests that may be substantially affected by the performance or non-performance of the official duties of the Chairman, County Board member or employee (v) is registered or required to be registered with the Secretary of State under the Lobbyist Registration Act or the DuPage County Lobbyist Registration Act, except that an entity not otherwise a prohibited source does not become a prohibited source merely because a registered lobbyist is one of its member or serves on its board of directors (vi) is a Political Action Committee to which a prohibited source has contributed.

INSURANCE:**Contractors Liability and Other Insurance**

The successful bidder shall purchase from and maintain such liability and other insurance as is appropriate for the work being performed and furnished. The insurance shall protect the Contractor from claims set forth below which may arise out of or result from the Contractor's operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- A. Claims under workers or workmen's compensation, disability benefit and other similar employee benefit acts which are applicable to the Work to be performed;
- B. Claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;
- C. Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;
- D. Claims for damages insured by usual personal injury liability coverage which are sustained (1) by a person as a result of an offense directly or indirectly related to employment of such person by the Contractor, or (2) by any other person for any other reason;
- E. Claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;
- F. Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle and coverage shall be written on a comprehensive automobile policy which shall include coverage for owned, non-owned and hired motor vehicles;
- G. Claims involving contractual liability insurance applicable to the Contractor's obligations.

INSURANCE REQUIREMENTS

TYPE	MINIMUM ACCEPTABLE LIMITS OF LIABILITY
1. Worker's Compensation	Statutory – State of Illinois
2. Employer's Liability	
A. Each Accident	\$1,000,000.00
B. Each Employee Disease	\$1,000,000.00
C. Policy Aggregate Disease	\$1,000,000.00
3. Commercial General Liability	
A. Per Occurrence	\$2,000,000.00
B. General Aggregate	
1. General Aggregate – Per Project	\$2,000,000.00
2. General Aggregate Products/ Completed Operations	\$2,000,000.00
4. Personal and Advertising Injury	
Each Occurrence	\$2,000,000.00
5. Fire Legal Liability (any one fire)	\$100,000.00
6. Medical Expense (any one person)	\$10,000.00
7. Umbrella Excess Liability	\$2,000,000.00 over Primary Insurance \$2,000,000.00 retention for Self-Insured Hazards Each Occurrence
8. Business Auto Liability	\$1,000,000.00

NOTE: A) It is the responsibility of Contractor to provide a copy of this bid to their insurance carrier.
B) It may also be required that the Contractor's insurer and coverage be approved by owner prior to execution of the Contract.
C) No work shall be started until receipt of Certificate of Insurance.

The County of DuPage shall be named as additionally insured on all certificates of insurance. Insurance certificates shall also reference project name and bid number. Certificates should be faxed (send hard copy via mail) to:

Glenda Vasak
DuPage County Procurement
421 North County Farm Road
Wheaton, IL 60187-3978
TX: (630)407-6190 FX: (630) 407-6201

All certificates of insurance shall be provided prior to the County issuing a Purchase order.

The insurance carrier of the insured is required to notify the County of DuPage of termination of any or all of these coverages prior to the completion of any contract.

Indemnification

The Contractor shall indemnify the County, and all elected officials of the County, Engineer and the officers, employees and agents of the County, Engineer (all collectively referred to as the "Indemnities") and shall defend, save and hold the Indemnities harmless from and against any claim, suit, legal proceeding, judgment, decree, loss, cost, damage or expense (including, but not limited to, reasonable attorney's and other costs and expenses incident to the investigation or the defense of any claim, suit or legal proceeding) arising from or growing out of the injury to or death of any person or the damage to any property (including, but not limited to, property of the Contractor) due to or resulting from or related to, the performance of the Work by the Contractor, any Subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be responsible or liable, except to the extent caused by the sole negligence of the County, its elected officials, officers, employees and agents. The obligations of the Contractor described in this Paragraph shall be construed broadly in favor of Indemnities and shall not be construed to negate, abridge or otherwise reduced any right or obligation of indemnity which would otherwise exist as to any party or person described in this Paragraph. In any and all claims against the County and Engineer or any of their consultants, agents or employees by any employee of the Contractor, any Subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, the indemnification obligation under this paragraph shall not be limited in any way by any limitation on the amount of type of damages, compensation or benefits payable by or for Contractor or any such Subcontractor or other person or organization under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.

INTENT OF BIDDING DOCUMENTS:

The Bidding Documents sets forth the minimum requirements for design, construction and performance of the Project. The Bid must address all the requirements of Bidding Documents and must modify the design and construction requirements to the extent the Bidder determines necessary to achieve the performance requirements. The Bidder must verify that the design and construction requirements set forth in the Bidding Documents will achieve the performance requirements for the Project and such verification or required modifications to the design and construction requirements must be clearly documented in the Bid.

INVESTIGATION OF BIDDERS:

The County will make such investigations as are necessary to determine the ability of the Contractor to fulfill bid requirements. The Contractor shall furnish such information as may be requested and shall be prepared to show completed installations of equipment, service and supplies similar to that included in this bid. It shall be at the sole discretion of the County to reject any bid if it is determined the Contractor does not fully demonstrate its ability to carry out the obligations of the contract.

MISCELLANEOUS REQUIREMENTS:

The County will not be responsible for any expenses incurred by the Contractor in preparing and submitting a Bid.

The Contractor is prohibited from assigning, transferring, conveying, subletting, or otherwise disposing of this agreement or its rights, title of interest therein or its power to execute such agreement to any other person, company or corporation without the previous consent and approval in writing by the County.

The County staff will not take delivery of any equipment or material. The Contractor shall have a representative on-site to receive any equipment or material delivered for this project.

MSDS:

Where applicable, Contractor shall furnish Material Safety Data Sheets for their products, in compliance with the Illinois Toxic Substance Disclosure to Employee Act and the "Right-to-Know" law. Material Safety Data Sheets, upon award of Contract, shall be submitted to the County Purchasing Division.

OPERATIONS AND MAINTENANCE PLAN

Contractor shall review, understand and verify their understanding of the DuPage County Facilities Management Asbestos Operations and Maintenance Plan for applicable work. Contractor will perform work in accordance with the Plan or will inform the designated person if unable to do so. In such case, the Asbestos Coordinator will give instructions as required prior to any work affected by asbestos on the premises.

PARTS & MATERIAL

Any parts or material that may be required due to the services requested under shall be provided at the Contractor's expense. Items that remain as part of the repair, installation or work provided are considered billable parts and material. The County will not pay for "trade consumables" which should be included as overhead in the prices. Any costs for factory support or manufacturer's authorized service will be the obligation of the successful bidder.

PERMITS, FEES, AND NOTICES:

The Contractor shall secure and pay for all Building Permits, and Governmental Fees, licenses, and inspection necessary for the proper execution and completion of the work which are legally required, file all notices, comply with all laws, rules, regulations and lawful orders bearing on the performance of the work.

PREVAILING WAGE:

The Contractor shall pay not less than the prevailing rate of wages as are on file with the Illinois Department of Labor, and are available at the following website:

<http://www.state.il.us/agency/idol/>.

The Contractor will be required to comply with the provisions of An Act regulating rates of laborers, mechanics, and other workers employed in any public works by the State, county, city, or any public body of any political subdivision of any one under contract for public works. (Illinois Compiled Statutes 1992, 820 ILCS 130/1, as amended from time to time).

The Contractor will be required to comply with the provisions of An Act regulating rates of laborers, mechanics, and other workers employed in any public works by the State, county, city, or any public body of any political subdivision of any one under contract for public works. (Illinois Compiled Statutes 1992, 820 ILCS 130/1, as amended from time to time).

The Contractor must retain payroll records for 5 years and make those records available for inspection by the County or the Illinois Department of Labor. The Contractor must submit monthly certification of payroll records. Certified Transcript of Payroll forms may be downloaded from the Contractors Forms page of the DuPage County Procurement Services Division website at:

http://www.dupageco.org/purchasing/generic.cfm?doc_id=2414

or you may use your own format containing the same information with pre-approval by the Purchasing Manager (submit sample with bid).

A determination by the Illinois Department of Labor of debarment for violation of the Prevailing Wage Act shall result in the Contractor being automatically deemed non-responsible for the period of debarment without further proceedings by the County.

PROPERTY FURNISHED TO CONTRACTOR BY COUNTY OF DuPAGE:

All property furnished to the Contractor by the County of DuPage or specifically paid for by the County of DuPage, for use in the performance of this contract, shall be and remain the property of the County of DuPage, shall be subject to removal upon the County of DuPage's instruction, shall be used only in filling orders from the County of DuPage, shall be held at the Contractor's risk, shall be kept insured by the Contractor at the Contractor's expense while in its custody or control in an amount equal to the replacement cost thereof, with loss payable to the County of DuPage, and upon recall by County of DuPage shall be packaged at Contractor's expense for shipment to County of DuPage in accordance with County of DuPage's instructions. Copies of policies or certificates of such insurance will be furnished to County of DuPage on demand.

It is agreed that any and all specifications, drawings, or data furnished by County of DuPage shall (1) remain the County of DuPage's sole and exclusive property; (2) be considered and treated by Contractor as County of DuPage confidential information, and not be copied, reproduced or duplicated in any manner or disclosed to any person or party, except as is necessary in the performance of this order/contract/and (3) be returned upon request.

STARTING AND COMPLETION:

If awarded a contract under this bid, the contractor shall commence work within ten (10) calendar days after receipt from the County of a formal Notice to Proceed. All work shall be completed within ninety (90) days from the date of receipt of the Notice to Proceed unless otherwise extended by mutual agreement.

THIRD PARTY AGREEMENT:

The County shall not enter into a third party agreement and reserves the right to disqualify a vendor so bidding. Any agreement between the Contractor and a sub-contractor must be approved by the County of DuPage. Successful bidder will be responsible for coordination and workmanship of sub-contractors.

VENDOR QUALIFICATIONS:

Vendor will provide a general history, description and status of their Company. Vendor shall have owned and operated their equipment/service/supplies company for at least the last five (5) years and must give evidence of same.

WORKING WITHIN SECURED AREAS:

A portion of the work will be performed within secured areas.

Security

Service Company shall, one (1) week prior to starting work, supply the completed Criminal History and Background information forms (sample attached) for all their employees and subcontractor employees who may be working at the job-site, to Lieutenant Wulff at (630) 407-2050, for advance security reasons.

Service Company will be required to perform all work in keeping with County security procedures while on the Facilities' grounds and shall be responsible for all personnel (including subcontractors) employed by their firm to ensure that Facilities' dress codes and overall policies are followed.

Notice Warning

Any person who takes into, or out of, or attempts to take into, or out of a correctional facility or the grounds belonging to or adjacent to a correctional facility, any item not specifically authorized by the correctional facility, shall be prosecuted under the provisions thereof. All persons, including employee

and visitors, entering upon these confines are subject to routine searches of their persons, vehicles, property or packages.

Contraband

Contraband means any dangerous drug, narcotic drug, intoxicating liquor of any kind, deadly weapon, dangerous instrument, explosive or any other article whose use of or possession would endanger the safety, security or preservation of order in a correctional facility or any person therein. (Any article includes any substance that could cause abnormal behavior, i.e., marijuana, nonprescription medication, etc.)

A person, not otherwise authorized by law, commits promoting contraband:

By knowingly taking contraband into a correctional facility or the grounds of such a facility; or By knowingly conveying contraband to any persons confined in a correctional facility; or

By knowingly making, obtaining, or possessing contraband while being confined in a correctional facility.

The Contractor will provide the County with a complete list of all persons duly authorized to work on this project. Only those persons will be allowed to work within secured areas. All Contractors' personnel authorized to work within secured areas shall be subject to fingerprinting and a criminal security check performed by the County. The County may issue temporary identification cards, which will be kept by County's security personnel and issued and collected on a daily basis.

Law prohibits the import of contraband such as drugs, liquor, firearms, ammunition and other similar items into any areas of work. Smoking materials (cigarettes, cigars, matches, lighters, ignition sources, etc.) are contraband and are not permitted in the secure perimeter. County's security personnel may conduct searches of Contractor's personnel, equipment, tools, and supplies at any time. Use of cameras and recording devices by Contractor's personnel is prohibited.

The County reserves the right to prohibit entry, into the secure area, those employees' deemed security risks, or who have violated any provision of this article.

Work being performed within certain areas may require an escort provided by the County. These areas shall not be entered into without County's escort. Work within these areas may be restricted to spaces that can be observed by the County's escort.

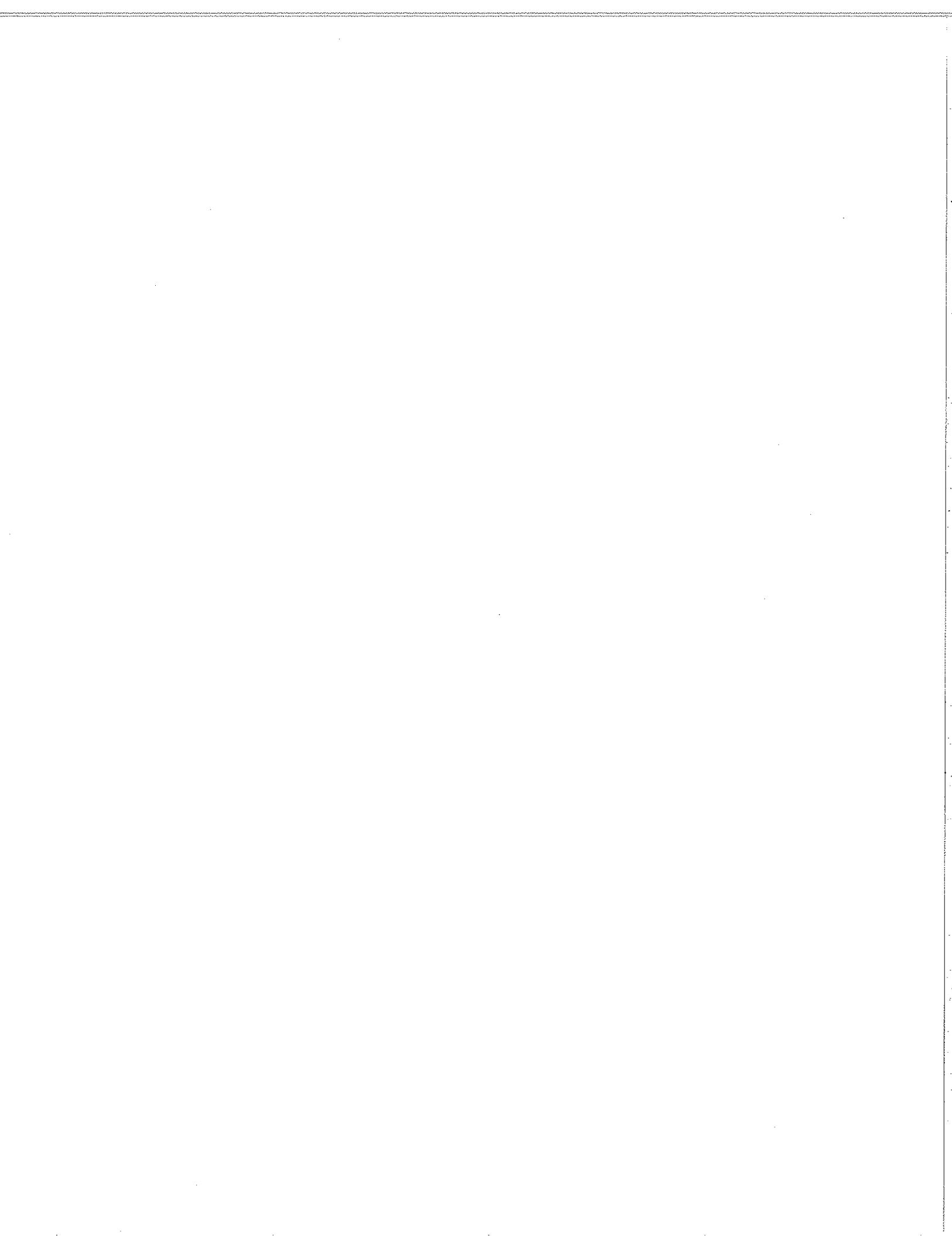
All tools and equipment to be taken into a secured area shall be listed in a manifest with copies provided to the County's security personnel for prior approval. All tools and equipment shall be accounted for at the change of each shift. All changes to the inventory shall be addressed by changing the manifest. Contractor is responsible for proper storage of tools and equipment when in a secured area. Broken tools and equipment must be reported to the County's security personnel, immediately.

A designated area outside of the secured area will be arranged for parking of personal vehicles. Delivery trucks will be admitted to receiving areas only by the request of the Contractor, and may be under the supervision of County's security personnel. Immediately load or unload trucks and remove from secured areas.

Workers shall not talk to, signal, whistle, or in any way attract the attention of any inmate, and shall restrict their movements to the project area. Nothing shall be taken from or given to an inmate. Inmates are not to help workmen in any way. Workers shall promptly notify their supervisor and County's security personnel of all unusual happenings pertaining to the inmates.

Within secured areas, the County will designate washing and toilet facilities for Contractor's use.

END OF SPECIAL CONDITIONS



BUILDING MANAGEMENT SYSTEM (BMS) GENERAL

SECTION 270000

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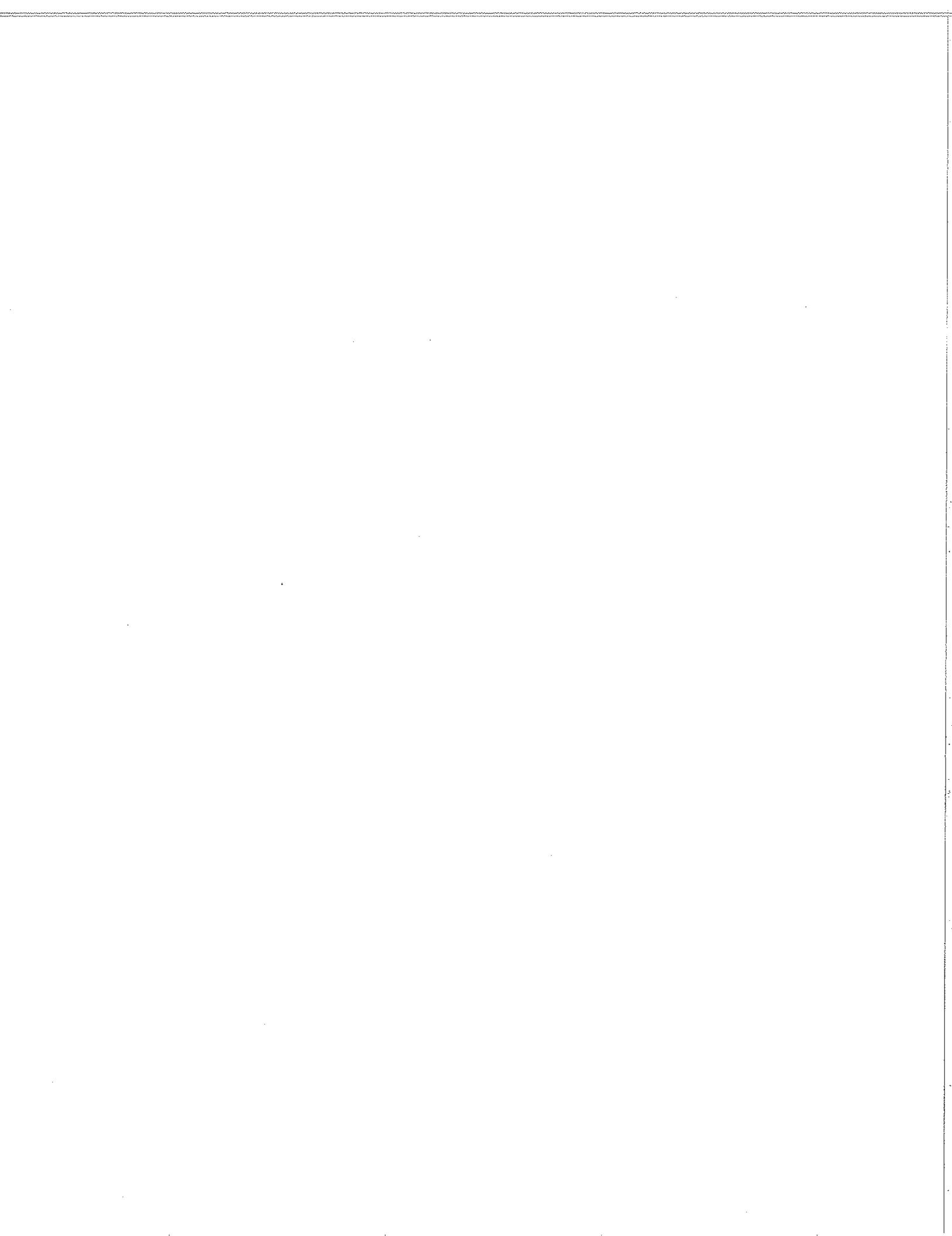
PART 2 -Products

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BUILDING MANAGEMENT SYSTEM (BMS) GENERAL

SECTION 270000

PART 1

1.01 Description of Work

The Campus wide Building Management System (BMS) shall be developed to unite building engineering communication between all buildings within the DuPage County Campus. Currently, the existing buildings have various control systems (Trane, Johnson-Controls, pneumatics, DDC, etc). Current BMS systems, due to limited performance or vintage, prevent inter-communication.

The address is to compliment the existing building communications systems/N2 devices by providing updated gateways (where required) that will allow information transfer/conversion to a BACnet, Ethernet, microprocessor-based, digital control, web based campus system. Communication will also be tied into the DuPage County Campus IT system.

Buildings with complete pneumatic systems will be altered at a point allowing for analog signals to be converted to digital signal and gatewayed into the BACnet, Ethernet, web based campus wide communication system. Existing systems to remain controlled pneumatically (i.e. actuators, dampers, valves), will have limited data conveyed and will not be remotely controlled.

Equipment (i.e. Future Emergency Generators) without any BMS/communication capabilities will require point definition to be interfaced into the campus system, at the nearest building, for performance/alarm monitoring.

BMS system implemented shall define parameters addressing features as energy management, alarms, trend monitoring and emergency system activity.

The BMS shall use an open architecture and shall support a multi-vendor environment. The system provided shall support an open communication protocol standard and allow for third party device application.

For purposes of this narrative, terminology used specific to one manufacturer does not imply that manufacturer any proprietary role.

1.02 Quality Assurance

1. **Manufacturer Qualifications:** Fabrication of BMS must be performed only by a qualified manufacturer. The term qualified means experienced in performing the Work required by this section. The Contractor's fabricator must have substantial documented experience acceptable to the County on projects similar in size and scope to this project. The Contractor must submit evidence of such qualifications upon request by DuPage County.
2. **Product Line Demonstrated History:** The product line being proposed for the project must have an installed history of demonstrated satisfactory operation for a length of 1 year since date of final completion in at least 10 installations of comparative size and complexity. Submittals must document this requirement with references.
3. **Data Communications Protocol Certificates:** Certify that each proposed DDC

system component complies with ASHRAE 135 BACnet Standard.

4. Data Communications Protocol Certificates: Certify that each proposed DDC system component is LonMark compliant, LonWorks.
5. Electrical components, Devices and Accessories: Listed and labeled as defined in NFPA 70, Article 100.
6. Comply with NFPA 72 National Fire Alarm Code
7. Comply with NFPA 101 Life Safety Code.
8. Comply with Building Officials and Code Administrators International (BOCA) model code.
9. Comply with Southern Building Code Congress International (SBCCI) regulations.

1.03 DEFINITIONS

- A. Adjustable (Adj): A characteristic of a control logic parameter such that it can be varied by the operator without downloading the program. See also initial value.
- B. Application and Data Server (ADX): server managing the collection and presentation of large amounts of trend data, event messages, operator transactions, system configuration data, performance, energy usage, demand and cost data. As site director, it also provides secure communication to a network of NAE's and NIE's
- C. Application Programming Tool: A vendor unique software tool used to create applications for programmable controllers.
- D. Application Protocol Data Unit (APDU): A unit of data specified in an application protocol and consisting of application protocol control information and possible application user data (ISO 9545).
- E. Bandwidth Utilization: The average utilization of the network capacity. The FTT-10 LonTalk network operates at 78Kb per second. Network loading is controlled by the use of event driven broadcast based data propagation and the use of appropriate binding services.
- F. Binding: The concept of associating an output network variable from one device to the input network variable of a second device. There are three types of bindings:
 - a. One to One: A single output network variable is bound to a single input network variable.
 - b. One to Many: A single output network variable is bound to input network variables on multiple devices.
 - c. Many to One: Output network variables from multiple devices are bound to a single input network variable on a different device.
- G. Broadcasting: The propagation of data from a device to the control network.

- H. Building Management System (BMS): An integrated energy management and monitoring system.
- I. Change of Value (COV): An event that occurs when a measured or calculated analog value changes by a predefined amount (ASHRAE/ANSI 135-1995).
- J. Channel: A LON network consisting of two segments connected by a physical layer repeater or router configured as a repeater. Each segment can support a theoretical limit of 64 connections.
- K. Connection: A connection is made when a device is physically connected to the FTT-10 communication cable. Devices that count against the number of connections limit include LON Talk Adapters (PCLTA, PCC 10 etc.), any sensor, actuator or controller with a FTT-10 transceiver and Neuron chip and a router or repeater. Terminators are not considered to be a connection.
- L. Control System Server (CSS): A device that is a provider of services to a client. A client device makes requests of and receives responses from a server device. As the BMS network devices are stand-alone, the CSS is not required for communications to occur.
- M. Controller or Control Unit (CU): Intelligent stand-alone control panel. Controller is a generic reference and is a PCU.
- N. Direct Digital Control (DDC): Microprocessor-based control including Analog/Digital conversion and program logic.
- O. Free Topology: A data wiring topology supported by LonWorks that allows for loops, tees, y-connections etc. When this topology is used only one terminator of a specific design is required and allowable cable lengths are significantly reduced. Guidelines on the application of this concept are available from Echelon.com.
- P. Gateway (GTWY): A device, which contains two or more dissimilar networks/protocols, permitting information exchange between them (ASHRAE/ANSI 135-1995).
- Q. Hand Held Device (HHD): Manufacturer's microprocessor based device for direct connection to a Controller.
- R. Managed Communication: The transmission of data from a controller to a data manager, which in turn re-broadcasts the data to a second controller. In some systems the data manager is referred to a Network Controller.
- S. Maximum Send Time: An adjustable parameter that defines the maximum time period between broadcasts of a software object's data to the network. Should the value of a software object remain constant over an extended period of time, the value will be rebroadcast once every maximum time period.
- T. Minimum Send Time: An adjustable parameter that defines a mandatory time period during which no broadcasting of data will occur. Once this time period has been exceeded without a broadcast, the send on delta parameter or the maximum send time parameter must determine when a broadcast is initiated.

- U. Network Automation Engine (NAE): controller enabling Internet Protocol (IP) connectivity and web-based access to Building Management Systems (BMS).
- V. Network Integration Engine (NIE): a web-enabled network controller that communicates with web-browsers and remote operation centers.
- W. Operator Interface (OI): A device used by the operator to manage the BAS including OWSs.
- X. Operator Workstation (OWS): The user's interface with the BMS system via the internet or the Local Supervisory LAN. As the BMS network devices are stand-alone, the OWS is not required for communications to occur.
- Y. Peer to Peer Communication: Data is broadcast from its origin and is received by the final device requiring the data without being received and retransmitted by a third device.
- Z. Primary Control Unit (PCU): A fully programmable device capable of carrying out a number of tasks including control and monitoring via direct digital control (DDC) of specific systems.
- AA. Repeater: A physical device used to connect two segments. A repeater does not filter any message traffic. A repeater does isolate physical problems such as short circuits to a single segment and is typically required to allow the use of additional devices or additional cable length.
- BB. Router: A device that connects two or more networks at the network layer.
- CC. Smart Device: A control I/O device such as a sensor or actuator that can directly communicate with the controller network to which it is connected. This differs from a PCU in that it typically deals only with one variable.
- DD. Stand-Alone Controller: A stand alone controller has provisions for all of the physical inputs and physical outputs associated with a single mechanical component such as a terminal unit, air handling unit, chiller or boiler. The controller must also have embedded in it all of the control logic that associates the physical inputs to the physical outputs. A stand-alone controller may rely on other networked devices for time schedule inputs and trend data storage.
- EE. Supervisory Logic: The concept of gathering performance data from multiple terminal units to determine if a specific condition exists within the family of terminal devices. Examples: Are any of the VAV terminals supported by a particular AHU operating the reheat processes? Is there an indication from any of the control zones that an occupant has requested the temporary operation of the air delivery system?
- FF. Unacknowledged: The data being broadcast is sent one time and an acknowledgement of receipt is not required. This type of service must be used for non-critical data where there is no significant impact should the receiving device have to wait for the next broadcast.

1.04 System Architecture

1. The BMS shall consist of the following:
 - a. The automation network shall be based on a PC industry standard of Ethernet TCP/IP. LAN controller cards shall be standard. All BMS devices on the automation network shall be capable of operating at a communication speed of 100 Mbps, with peer to peer network communication.
 - b. Central Extended Application and Data Server (ADX), manages data (trend log, audit trail etc.) received from remote stand alone PC's (located in the power plant).
 - c. Stand Alone Network Automation Engine (NAE) to replace current Network Control Modules (NCM) and for buildings currently not equipped. Network automation engines shall provide supervisory control over the control network.
 - d. Operator workstation (PC) supporting each new network automation engine. The PC shall be configured as follows: 1 GB (512 MB min) memory, Pentium 4 processor, 2.0 Hz clock speed, 80 GB free hard drive space, hard drive backup system, CD ROM Drive (32X perf.), (2) serial and (1) parallel port, (2) USB ports, 83 keyboard, button mouse, 17" flat panel monitor (1024x768 res), LAN communications –Ethernet communications board. Windows XP Professional operating system. 600 DPI black, 300 DPI color, 64K Input print buffer, color printer.
 - e. Dedicated Web based user Interface. All features and functions of the dedicated user interface defined shall be available on any computer connected directly or via wide area or virtual private network (WAN/VPN).
 - f. Network processing, data storage and communications equipment.
 - g. Field Equipment Controllers.
 - h. Input/Output Modules
 - i. Local Display Devices.
2. The BMS as provided shall incorporate the following integrated features and functions:
 - a. Operator information, alarm management and control functions.
 - b. Campus level information and control access.
 - c. Information management including monitoring, archiving, retrieval and reporting functions.
 - d. Diagnostic monitoring and reporting of BMS functions.
 - e. Offsite monitoring and management access.
 - f. Energy management.
 - g. Security monitoring.
3. Software and Firmware Operational Documentation: Include the following:
 - a. Software operating system and upgrade manuals.
 - b. Program Software Backup: On a CD, complete with data files.
 - c. Device address list.
 - e. Printout of software application and graphic screen.
 - f. Software license required by and installed for DDC workstations and control systems.
 - g. List of system data integrations, including proposed data points.

4. Points of user interface shall be on standard PC's that do not require any additional software from the manufacturer for use as a building operations terminal. Standard web browser shall be the primary point of interface on the PC's.
5. The system shall be modular and allow for expansion of capacity and functionality while re-using existing controls (where applicable).
6. System provided shall have the capability of displaying alarm reporting and control execution from multiple location/devices.
7. The failure of any single component or network connection shall not interrupt the execution of control strategies or other operational devices.
8. The system provided shall maintain all settings and overrides through a system reboot.
9. The BMS shall network multiple user interface clients, automation engines, system controllers and application controllers.
10. Network Automation Engines (NAE) shall reside on the automation network.
11. The automation network will be compatible with other enterprise wide networks. Where required, the automation network shall be connected to the enterprise network and shall share resources by way of standard networking devices.
12. Network Automation Engines (NAE) shall provide supervisory control over the network and support the following communication protocols:
 - a. BACnet Standard MS/TP Bus Protocol ASHRAE SSPC-135.
 1. NAE shall be BACnet Testing Labs (BTL) certified and carry the BTL label.
 2. NAE shall be tested and certified as a BACnet Building Controller (B-BC).
 3. LonWorks enabled devices.
13. Control networks shall operate at a minimum communication speed of 9600 baud.
14. A BACnet Protocol Implementation Conformance Statement shall be provided for each controller device that will communicate on the BACnet MS/TP Bus.
15. Integration:
 - a. BACnet Protocol Integration
 1. The neutral protocol used between systems will be BACnet over Ethernet and comply with the ASHRAE BACnet standard 135-2003.
 2. A complete Protocol Implementation Conformance Statement (PICS) shall be provided for all BACnet system devices.
 3. The ability to share data and schedules between the host and the BACnet systems shall be provided.
16. Navigation Trees: The system will have the capability to display multiple navigation trees that will aide in system and point summary.

17. Alarms:

- a. Alarms shall be routed from the Network Automation Engine to PC's and servers. Specific alarms shall have the capability of being routed to specific PC's.
- b. Alarms shall include: date and time, audible signal, user disengage –with proper clearance, audit trail by recording specifics, ability to direct alarms to a given email address or alphanumeric pager.

18. Reports and Summaries:

- a. The system shall provide listings for all points in the BMS, BMS application, specific controller, user –defined group, alarms, locked out, schedules, adjustable variables and interlocks.
- b. Reports shall not require custom programming.
- c. The system shall allow for custom reporting.
- d. Energy reports shall be from preconfigured templates; Ex. Energy overview, Load profiling, Energy cost, consumption or production, Equipment runtime,

19. Schedules:

- a. Scheduling shall be available similar to Weekly, Exception and monthly calendars.
- b. Scheduling shall be compliant with ASHRAE SP135/2003 BACnet standard.
- c. Software shall be provided that implements start and stop programming based on outdoor environmental conditions and equipment operating history.

20. Password:

- a. Multiple-level password access/protection shall be provided to allow the user to interface with control and database capabilities appropriate for each user, based on an assigned password.
- b. The system shall allow each user to redefine his password.
- c. Actual characters shall not echo on the screen when typing in of passwords.
- d. Operators shall be able to perform only those commands available for their respective passwords.

21. Database Management:

- a. The database managing function shall include information on trend, alarm, event, and audit for the following: backup, purge and restore purposes.
- b. The database manager shall support statistics (trend, alarm and audit), maintenance (purging records and backups, and select retention), backup (create), and restore data.

22. Demand Limiting and Load Rolling:

- a. The system shall provide a demand limiting program for the purpose of projecting peak energy usage and overall energy consumption.
- b. The system shall provide for a shedding and a monitoring only mode.

- c. The demand limiting/load rolling program shall be capable of supporting a minimum of 10 separate load priorities. Each load shall be user assigned.
- d. The system shall provide a load summary displaying all loads associated with the Demand Limiting/Load Rolling programs.
- e. The load summary shall include a view listing the load priority, shed priority, load rating, present value, timer, last shed time and time remaining status.

23. Software Upgrade Kit: for owner use in modifying software to suit future systems revisions or control revisions.

1.05 Quantity and Location

- 1. Following illustrates the current DuPage County campus buildings and their status of controls.

Existing Building Summary

<u>System</u>	<u>NCM number</u>	<u>Location</u>	<u>Service</u>	<u>Pneu actuators dampers/valves</u>	<u>Remark</u>
Arcnet	1	Judicial Office Fac.	DDC (Pneu Boxes)	yes	
Arcnet	2	Judicial Office Fac.	DDC (Pneu Boxes)	yes	
Arcnet	3	Jail	DDC	yes	
Arcnet	4	Jail	Pneu/DDC	yes	
Arcnet	5	Judicial Office Fac.	DDC (Pneu Boxes)	yes	NC Dial
Arcnet	6	Power Plant	DDC	yes	Trane Summit
Arcnet	7	Juv Det/Animal Sh.	DDC	yes	NDM
Arcnet	8	Conval. Center	Pneu/DDC	yes	NDM
Arcnet	9	421 Admin.	Pneu/DDC	yes	
Arcnet	10	421 Admin.	Pneu/DDC	yes	
Arcnet	11	Judicial Office Fac.	DDC (Pneu Boxes)	yes	
Arcnet	12	Coroner's Bldg.	DDC	yes	
Arcnet	13	Judicial Office Fac.	DDC (Pneu Boxes)	yes	
Arcnet	14	Judicial Office Fac.	DDC (Pneu Boxes)	yes	
Arcnet	15	Highway Dept Garage	Pneu/DDC	yes	Trane Summit
Ethernet	16	Annex	DDC	yes	
Ethernet	17	Annex	DDC	yes	LonMark

Existing Building Summary (cont'd)

<u>System</u>	<u>NCM number</u>	<u>Location</u>	<u>Service</u>	<u>Pneu actuators dampers/valves</u>	<u>Remark</u>
Ethernet	18	Annex	DDC	yes	LonMark
Ethernet	19	Sheriff	DDC	no	LonMark
Ethernet	20	Sheriff	DDC	no	
	XX	DOT Garage	DDC		CV Tridium
	XXX	Emergency Gen.	(Future)		

2. Following is a list of scope items required to update the existing buildings communications infrastructure system to provide an interactive contemporary campus wide system.

- a. Judicial Office Facility. (NCM -1,2,5,11,13,14) requires an NAE replacement for each NCM. All new NAE's shall be interfaced with the new ADX.
- b. Jail, (NCM-3,4) requires an NAE replacement for each NCM. All new NAE's shall be interfaced with the new ADX.
- c. Power Plant, (NCM-6) requires an NAE replacement for the NCM. The new NAE shall be interfaced with the new ADX. The new ADX shall be located in the power plant engineering office.
The current Trane Tracer Summit BCU (building communications controller) integration panel shall be interfaced with the new NAE.
- d. Juvenile Detention/Animal Shelter, (NCM-7) requires an NAE replacement for the NCM. The new NAE shall be interfaced with the new ADX.
- e. Convalescent Center, (NCM-8) requires an NAE replacement for the NCM. The new NAE shall be interfaced with the new ADX. The Convalescent Center is predominantly pneumatic and shall receive field equipment controllers for the following major equipment.
 - AHU S-1, 1st floor mechanical room. Existing automatic humidity valve/actuator and automatic outside air damper, actuator will be reused. A new automatic dual temperature water valve/actuator will be furnished and installed. Existing thermal wells will be reused.
 - AHU S-2, 3rd floor mechanical room. Existing automatic humidity valve/actuator dual temperature water valve/actuator and automatic outside air damper/actuator will be reused.
 - AHU-S-3, basement mechanical room. Existing automatic heating valve/actuator, cooling valve/actuator, automatic humidity valve/actuator, supply fan vortex damper/actuator, outside air damper/actuator and thermal wells will be reused.

- AHU S-4, Phase 2/Phase 3 mechanical room. Existing automatic heating valve/actuator, cooling valve/actuator, outside air damper/actuator and thermal wells will be reused.
- AHU S-5, Phase 2/Phase 3 mechanical room. Existing automatic heating valve/actuator, cooling valve/actuator, automatic humidity valve/actuator, supply fan vortex damper/actuator, outside air damper/actuator, automatic face/by-pass damper/actuator and reheat coil #7 automatic valve/actuator and existing thermal well will be reused. Points in existing Johnson Controls DX9100 will be reused.
- Two existing kitchen exhaust fans (K-2 and K-3) on the roof. Upgrade manual operation of the units.

Controls will be provided to upgrade the following systems:

- Existing dual temperature heating hot water/chilled water distribution system, Phase 2/Phase 3 mechanical room. The existing chilled water bridge will be reused. The existing automatic temperature control valve/actuator, automatic pressure control valve/actuator, automatic heating isolation valve/actuator will be replaced. A new automatic cooling isolation valve/actuator and a manual cooling shut-off valve will be furnished and installed.
- Existing high temperature water to heating hot water system, Phase 2/Phase 3 mechanical room. Existing automatic converter valves/actuators and thermal wells will be reused.
- Existing radiation hot water system, Phase 2/Phase 3 mechanical room. Existing radiation valve/actuator and thermal wells will be reused.

- f. 421 Administration Building, (NCM-9, 10) requires an NAE replacement for each NCM. All new NAE's shall be interfaced with the new ADX.
- g. Coroner's Building, (NCM-12) requires an NAE replacement for the NCM. The new NAE shall be interfaced with the new ADX.
- h. Highway Garage, (NCM-15) requires an NAE replacement for the NCM. The new NAE shall be interfaced with the new ADX.
The current Trane Tracer Summit communications controller BCU (building communications controller) integration panel shall be interfaced with the new NAE.
- i. JOF Annex, (NCM-16) requires an NAE replacement for the NCM. The new NAE shall be interfaced with the ADX.
(NCM-17, 18) requires a network integration engine (NIE) replacement for each NCM. All new NIE's shall be interfaced with the new ADX.
The vintage of LonMark componentry currently in the building shall require integration engine's (NIE) to communicate to the new Application Server (ADX).
- j. Sheriff's Office, (NCM-19) requires a network integration engine (NIE) replacement for the NCM. Each new NIE shall be interfaced with the ADX.

The vintage of LonMark componentry currently in this system shall require an integration engine (NIE) to communicate to the new Application Server (ADX).

(NCM-20) requires an NAE replacement for the NCM. The new NAE shall be interfaced with the ADX.

- k. Department of Transportation Garage, (No NCM) introduce an NAE in the building to integrate with the current Tridium system.
The current Tridium controller shall be reconfigured for BACnet integration. The new NAE shall be interfaced with the new ADX.

1.06 Coordination

1. The BMS contractor shall be responsible for coordination of all controls activities.
2. The BMS contractor shall be responsible for coordination with the DuPage County Information Technologies (IT) staff to insure that the BMS is compatible and does not create disruption with current activities on campus.
3. The BMS work shall consist of all labor, materials, tools, equipment, software and licenses, configurations, database entries, interfaces, associated wiring, installation, engineering, calibration, documentation, samples, submittals, testing, commissioning, training, permits, transportation, shipping, handling, administration, supervision, management, insurance, temporary protection, cleaning, cutting and patching, and warranties which are required for a complete and fully functional BMS.
4. BMS contractor is responsible to manage and coordinate all work in a timely manner considering the scope and schedules of all related and involved parties.
5. BMS contractor is responsible for a neat and workmanlike installation.

PART 2 -Products

2.01 SUBMITTALS

- A. Electronic Submittals: While all requirements for hard copy submittal apply, control submittals and O&M information must also be provided in electronic format as follows.
 1. All submittals must be provided in Adobe Portable Document Format.
- B. Qualifications: Manufacturer, Installer, and Key personnel qualifications as indicated for the above.
- C. Product Data: Submit manufacturer's technical product data for each control device furnished, indicating dimensions, capacities, performance and electrical characteristics, and material finishes. Also include installation and start-up instructions.

D. Shop Drawings: Submit shop drawings for each control system, including a complete drawing for each new device, etc. with all point descriptors, addresses and point names indicated. Each shop drawing must contain the following information:

1. System Layout:
 - a. One-line diagram indicating schematic locations of all control units, workstations, LAN interface devices, gateways, etc. Indicate network number, device ID, address, device instance, address, and controller type. Indicate media, protocol, baud rate, and type of each LAN. Indicate all Lon Talk nodes, including Neuron ID and domain, sub-network and channel addresses. Indicate media, protocol, baud rate, and type of each LAN.
 2. All physical points on the schematic flow diagram must be indicated with names, descriptors, and point addresses identified.
 3. With each schematic, provide a point summary table listing building number and abbreviation, system type, equipment type, full point name, point description, Ethernet backbone network number, network number, device ID, object ID (object type, instance number).
 4. Label each input and output with the appropriate range.
 5. Provide a Bill of Materials with each schematic. Indicate device identification to match schematic and actual field labeling, quantity, actual product ordering number, manufacturer, description, size, voltage range, pressure range, temperature range, etc. as applicable.

E. Training Plan

1. Training must be structured as follows: Format must be an outline broken up into two 4 hour sessions.
2. The material to be covered must then be further sub divided into descriptions of the material to be covered in every 30 minutes.
3. The descriptions must include not only the material to be covered but also its location in the provided Training Manual including section and page number.

F. Operation and Maintenance Materials: Three (3) copies of the Operation and Maintenance Manuals shall be provided to DuPage County upon completion of the project. The complete O and M manual shall be furnished on CD and shall include the following:

1. Submit maintenance instructions and spare parts lists for each type of control device, control unit, and accessory.
2. Submit BAS User's Guides (Operating Manuals) for each controller type and for all workstation hardware and software and workstation peripherals.

3. Submit BAS advanced Programming Manuals for each controller type and for all workstation software.
4. Include all submittals (product data, shop drawings, control logic documentation, hardware manuals, software manuals, installation guides or manuals, maintenance instructions and spare parts lists) in maintenance manual.

G. The Operation and Maintenance manual CD shall be self-contained, and include all necessary software required to access the product data sheets. Viewer software shall provide the ability to display and search all documents.

H. Provide field quality control inspection and test reports.

2.02 PROJECT RECORD DOCUMENTS

- A. Record copies of product data and control shop drawings updated to reflect the final installed condition.
- B. Record copies of approved control logic programming and database on paper and on CD's. Accurately record actual set points and settings of controls, final sequence including changes made after submission and approval of shop drawings including changes made during specified testing.
- C. Record copies of approved project specific graphic software on CD's.
- D. Record copies must include individual floor plans with controller locations with all interconnecting wiring routing including space sensors, LAN wiring, power wiring, low voltage power wiring.
- E. Provide record riser diagram showing the location of all new controllers.
- F. Maintain project record documents throughout the warranty period and submit final documents at the end of the warranty period.

2.03 BUILDING AUTOMATION SYSTEM OPERATOR INTERFACE (OI)

- A. The Operator Interface must provide for overall system supervision, graphical user interface, management report generation, alarm annunciation, remote monitoring, and trend reporting.

2.04 SYSTEM DESCRIPTION

- A. Application of Open Protocols
 1. Subject to the requirements provided throughout the specifications, the BMS and digital control and communications components installed, as work of this contract must be an integrated distributed processing system utilizing the following standards:
 - a. LonTalk: Provide control products and systems that comply with the latest version of the ANSI/EIA standard 709.1 and the LonTalk protocol of the Interoperability Standards as published by the LONMARK™ Association. All architectures involving tunneling the LonTalk protocol across an IP network must incorporate ISO Layer 3 transparent routing.

- B. The system provided must incorporate hardware resources sufficient to meet the functional requirements of these Specifications. The Contractor must include all items not specifically itemized in these Specifications that are necessary to implement, maintain, and operate the system in compliance with the functional intent of these Specifications.
- C. The system must be configured as a distributed processing network(s) capable of expansion.
- D. The system architecture must consist of an Ethernet-based, wide area network (WAN), a single Local Area Network (LAN) or multi-leveled LANs that support PCU's, Operator Workstations (OWS), and Remote Communication Devices (RCDs) as applicable. The following indicates a functional description of the BAS structure.
 - 1. WAN: Intranet-based network connecting multiple facilities with a central data warehouse and server, accessible via standard web-browser. This is an existing infrastructure and contractor is not required to configure any components of this WAN. Contractor is however required to provide LonTalk Objects at the Local Supervisory LAN via LonTalk over IP. The System Routers will be connected to this Ethernet LAN to manage the exchange of data and alarms with the WAN Server and "pull" trends from the local system and "push" them up to the WAN and pass alarms. This Contractor must provide a gateway(s), routers, hardware, software, etc. necessary to translate and facilitate services to perform this work.
 - 2. Local Supervisory LAN: The Local Supervisory LAN must be an Ethernet-based, 100 Mbps LAN connecting Primary Control LANs and OWSs. The LAN serves as the inter-PCU gateway and OWS-to-PCU gateway and communications path and as the connection point for the WAN. LAN must be IEEE 802.3 Ethernet over Fiber or Category 5 cable with switches and routers that support 100 Mbps throughput. Power-line carrier communication must not be acceptable for communications. The higher level layers of this network must be the following:
 - a. LonWorks Supervisory LAN: Individual Primary Control LonTalk Networks routed over IP using LonTalk to IP routers.
- E. Dynamic Data Access: Any data throughout any level of the network must be available to and accessible by all other devices.
- F. Remote Data Access: The system must support the following methods of remote access to the building data.
 - 1. Browser-based access: A remote user using a standard browser must be able access all control system facilities and graphics with proper password. DuPage County must secure and pay for the continuous Internet connection.
- G. Network Performance: The communication speed between the controllers, LAN interface devices, and operator interface devices must be sufficient to ensure fast system response time under any loading condition. Contractor must submit guaranteed response times with shop drawings including calculations to support the guarantee. In no case must delay times between an event, request, or command initiation and its completion be greater than those listed herein.

- H. Control Systems Server (CSS): This must be a computer (or computers) that maintain the systems configuration and programming database and is the operating platform for the operator interface (OI). It must hold the backup files of the information downloaded into the individual controllers and as such support uploading and downloading that information directly to/from the controllers. It must be located within each facility. It must also act as a control information server to non-control system based programs. It must allow secure multiple-access to the control information.
- I. The PCU's, must monitor, control, and provide the field interface for all points specified. Each PCU must be capable of performing all specified energy management functions, and all DDC functions, independent of other PCU's and operator interface devices.
- J. Systems Configuration Database: The system architecture must support maintaining the systems configuration database on a server or workstation on the Local Supervisory LAN. User tools provided must allow configuring, updating, maintaining, etc. current configurations and settings whether they are initiated at the server or the end device.
 - 1. Database Scheme must be published and provided to DuPage County to facilitate easy access to the data.
- K. Interruptions or fault at any point on any Primary Controller LAN must not interrupt communications between other nodes on the network.
- L. All line drivers, repeaters, terminators, signal boosters, signal conditioners etc. must be provided as necessary for proper data communication.
- M. Anytime any controller's database or program is changed in the field, the controller must be capable of automatically uploading the new data to the CSS.

2.06 WARRANTY MAINTENANCE

- A. Contractor must warrant all products and labor for a period of one (1) year after Final Acceptance.
- B. DuPage County (DC) reserves the right to make changes to the BMS during the warranty period. Such changes do not constitute a waiver of warranty. The Contractor must warrant parts and installation work regardless of any such changes made by DC, unless the Contractor provides clear and convincing evidence that a specific problem is the result of such changes to the BMS. Any disagreement between DC and the Contractor on such matters must be subject to resolution through the contract 'Disputes' clause.
- C. At no cost to DC, during the warranty period, the Contractor must provide maintenance services for software and hardware components as specified below:
 - 1. Maintenance services must be provided for all devices and hardware specified in section 270000. Service all equipment per the manufacturer's recommendations. All devices must be calibrated within the last month of the warranty period.

2. Emergency Service: Any malfunction, failure, or defect in any hardware component or failure of any control programming that would result in property damage or loss of comfort control must be corrected and repaired following telephonic notification by DC to the Contractor.
 - a. Response by telephone to any request for service must be provided within two (2) hours of DC's initial telephone request for service.
 - b. Emergency service must be available on a 24-hour, 7-day-a-week basis.
3. Technical Support: Contractor must provide technical support by telephone throughout the warranty period.
4. Preventive maintenance must be provided throughout the warranty period in accordance with the hardware component manufacturer's requirements.

1.08 DELIVERY, STORAGE, AND HANDLING:

- A. Provide factory-shipping cartons for each piece of equipment and control device. Maintain cartons during shipping, storage and handling as required to prevent equipment damage, and to eliminate dirt and moisture from equipment. Store equipment and materials inside and protect from weather.

1.09 LISTING AND LABELING:

- A. The BMS and components must be listed by Underwriters Laboratories (UL 916) as an Energy Management System.

PART 2 EXECUTION

3.01 MATERIALS AND EQUIPMENT:

- A. Materials must be new, the best of their respective kinds without imperfections or blemishes and must not be damaged in any way.

3.02 UNIFORMITY

- A. To the extent practical, all equipment of the same type serving the same function must be identical and from the same manufacturer.

3.03 INSPECTION

- B. Examine areas and conditions under which control systems are to be installed. Do not proceed with work until unsatisfactory conditions have been corrected in manner acceptable to Installer.

3.04 INSTALLATION OF CONTROL SYSTEMS:

- A. General: Install systems and materials in accordance with manufacturer's instructions.

3.05 CONTROL POWER SOURCE AND SUPPLY

- A. Section 270000: Contractor must extend all power source wiring required for operation of all equipment and devices provided under Section 270000.
- B. General requirements for obtaining power include the following:
 - 1. Obtain power from a source that feeds the equipment being controlled such that both the control component and the equipment are powered from the same panel. Where equipment is powered from a 460V source, obtain power from the electrically most proximate 120v source fed from a common origin.
 - 2. Where control equipment is located inside a new equipment enclosure, coordinate with the equipment manufacturer and feed the control with the same source as the equipment. If the equipment's control transformer is large enough and of the correct voltage to supply the controls it may be used. If the equipment's control transformer is not large enough or of the correct voltage to supply the controls provide separate transformer.
 - 3. Where a controller controls multiple systems on varying levels of power reliability (normal, emergency, and/or interruptible), the controller must be powered by the highest level of reliability served. Furthermore, the controller in that condition must monitor each power type served to determine so logic can assess whether a failure is due to a power loss and respond appropriately. A three-phase monitor into a digital input must suffice as power monitoring.

END OF SECTION 270000

