



Window Replacements Herod Hall, Bell Tower, and Student Center

Northwestern Oklahoma State University

709 Oklahoma Blvd.

Alva, OK

Labor & Material Specifications

September 22, 2025

**SOLICITATION FOR BID
(Bid Notice)**

Sealed competitive bid proposals will be received by Northwestern Oklahoma State University at the Regents Conference Room, located in Herod Hall, 709 Oklahoma Blvd.; Alva, Oklahoma until 3:00 p.m. on the 21st day of October, 2025, for furnishing all necessary labor, materials and equipment for Exterior Windows and Doors Replacements to the Herod Hall, Bell Tower, and Student Center Building at Northwestern Oklahoma State University.

Interested Bidders shall attend a mandatory pre-bid meeting on 7th day of October, 2025 at 3:00 pm in the Regents Conference Room to familiarize themselves with the Project/Service, see existing conditions, and take measurements. No additional allowances will be made for lack of knowledge of these conditions.

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

Said bids will be publicly opened, read aloud, and tabulated in the Regents Conference Room, 2nd Floor Herod Hall, Northwestern Oklahoma State University, Alva, Oklahoma, beginning at 3:00 p.m. on the 21st day of October, 2025. Proposals must be sealed to be considered. Bid proposals received will be presented to the Northwestern Oklahoma State University Board of Regents. It is the intent of Northwestern Oklahoma State University to immediately award and execute the contract for construction.

Copies of specifications may be obtained by application to the Director of Purchasing, Lisa Vermillion 709 Oklahoma Blvd, Alva, OK. Office Phone 580-327-8535 Email lmvermillion@nwosu.edu Contractor's standard AIA Qualification Statement is required prior to receipt of plans and specifications. Contractors must submit Qualification Statement prior to date of bid opening to be included on bid list. Specifications are also on file at the Administration Office, Northwestern Oklahoma State University, located in Herod Hall, 709 Oklahoma Blvd.; Alva, Oklahoma.

AGENCY CONTACTS: Monty Herren (580) 748-3570 (Physical Plant Director)

Dr. David Pecha (580) 327-8528 (Executive Vice President)

Business Relationships Affidavit, Non-Collusion Affidavit and cashier's check, certified check, Surety Bid Bond, or an irrevocable letter of credit in the amount of five percent (5%) of the gross amount of the base bid as a guaranty shall accompany the sealed proposal of each bidder. The Owner reserves the right to reject any or all bids. No bidder may withdraw his bid within thirty (30) days after the actual date of the opening thereof.

The successful bidder will be required to submit statutory Payment, Performance, Defect and Maintenance Bonds prior to commencing work on the project.

For purposes of your bid, do not include any local or state sales tax. The Owner will appoint the successful bidder its agent for the purpose of receiving tax exempt status on purchase of materials for this Contract only. Authority Oklahoma Statute Article 68 Paragraph 1356, 1983.

Dated this 22nd day of September, 2025.

Dr. Bo Hannaford, President

Northwestern Oklahoma State University

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Section 00300 Form of ProposalForm of Proposal:

Proposal must be made on this form. Fill all blanks completely. Prices must be shown in writing and figures. Place proposals in a sealed envelope marked on the outside as follows: "Proposal for Northwestern Oklahoma State University, Window Replacement of Herod Hall, Bell Tower, and Student Center; Alva, Oklahoma", and addressed to:

Northwestern Oklahoma State University 709 Oklahoma Blvd.

Alva, Oklahoma 73717

Proposal of _____ hereinafter called "Bidder" a corporation, organized and existing under the laws of the State of _____, A Partnership, or an individual doing business as:

(Name of bidder)

The bidder, in compliance with your invitation for bids for the Window Replacement of Herod Hall, Bell Tower, and Student Center, Northwestern Oklahoma State University, Alva, Oklahoma.

Having examined the plans, specifications (including the Instructions to Bidders, General Conditions, Insurance Requirements and General Requirements of the specifications), forms of contract, bond requirements, related documents, and being familiar with and having inspected the existing conditions surrounding the construction of the proposed project and the availability of materials and labor, hereby proposes to furnish all equipment, supplies, labor and materials, to complete the project in accordance with the contract documents within the time and price set forth herein.

By submission of this BID, each BIDDER certifies, and in the case of a joint BID each party thereto certifies as to its own organization, that this BID has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this BID with any other BIDDER or with any competitor.

The undersigned bidder proposes and agrees that if his proposal is accepted, to enter into contract with Northwestern Oklahoma State University on forms prescribed, with approved sureties, and to furnish to the Owner a satisfactory Performance and Statutory Bond or irrevocable letter of credit in the sum of 100% of the contract price, guaranteeing the faithful performance of the work and payment of bills.

NOTICE TO PROCEED:

Bidder hereby agrees to commence work under this contract within 10 days of the date of the Notice to Proceed and to fully complete the project on or before the number of calendar days written on this Proposal Form.

No Bidder may withdraw a BID within thirty (30) days after the actual opening thereof. Accompanying this proposal guaranty for 5% of the total bid, payable to Northwestern Oklahoma State University, which is to be forfeited as liquidated damages if, in the event this proposal is accepted, the undersigned shall fail to execute the contract and furnish satisfactory contract bond under conditions and within the time specified in this proposal. Otherwise said proposal guaranty is to be returned to the undersigned.

The Contractor shall take out and maintain public liability insurance in accordance with the specifications. A copy of said specifications is now on file in the Owner's office.

Upon completion of the Contract, the Contractor shall furnish to the Owner a satisfactory Maintenance Bond in the amount of 100% of the final contract price, guaranteeing the maintenance of the work for a period of two (2) years after acceptance by the Owner.

TAXES:

State and Municipal sales tax shall not be included in bids submitted for personal property required in this project. The title to this facility is in the name of Northwestern Oklahoma State University, Alva, Oklahoma. Orders for all tangible personal property will be placed by the Contractor or subcontractor as the agent of the Owner and the title will not pass from vendor directly to the Contractor.

All tangible personal property and materials are being purchased by the Contractor or his subcontractor for and on behalf of the school and said materials and property are to be invoiced by the vendor to Northwestern Oklahoma State University, and upon delivery of materials or property proper claims are to be submitted by the vendor to the Contractor on the claim forms of the Owner. All contracts with subcontractors will include a provision identical to this paragraph.

All such tangible personal property sold or leased direct to the Owner by the vendor is exempt from state and municipal sales tax.

LIQUIDATED DAMAGES: The time of completion is of the essence of the contract. For each calendar day that any work shall remain uncompleted after the time agreed upon in the proposal or the contract, or as automatically increased by additional work or materials ordered after the contract is signed, or the increased time granted by the owner for the completion of work, the sum of \$250.00 per day, unless otherwise specified in the proposal or special provision, will be deducted from the monies due the contractor, not as penalty but as liquidated damages.

The sum of money thus deducted for such delay, failure or non-completion is not to be considered as a penalty, but should be deemed, taken and treated as reasonable liquidated damages since it would be impractical and extremely difficult to fix the actual damages.

RIGHT TO REJECT BIDS: The Owner reserves the right to reject any or all bids and to waive informalities or minor irregularities in any bid. Base Bids, Alternates, options, or combinations thereof, will be arranged for the Owner's convenience and to make all items of the work more advantageous to the Owner.

Subject to the above conditions, the undersigned Bidder agrees to accept compensation for the completed work in accordance with the detailed plans and specifications, the following price(s):

BASE BID:

Lump Sum Price \$ _____

Herod Hall only \$ _____

Bell Tower only \$ _____

Student Center only \$ _____

Bid Bond:

A Bidder's Bond, Certified or Cashier's Check, Statutory Bid Letter of Credit is enclosed in the amount of five percent (5%) of the base bid, as required.

Total number of calendar days required to complete work.

Contractor should note time of completions and delivery is of considerable importance to Owner, and will be considered in the award of the contract. Number of calendar days stated here shall include all anticipated delays for weather days, delivery delays or other delays which may occur during the course of construction. See Liquidated Damages for late completions.

The bidder has knowledge of the following addenda: _____.

ADDITIONAL WORK AUTHORIZED

If during construction, the Owner authorizes additional work not mentioned in Alternates or unit costs, Bidder agrees to do the extra work ordered by the Owner and to accept as full compensation such prices as may be agreed upon in writing by the Owner and the Contractor in accordance with the specifications. The total charge to the Owner will be the cost of the work plus 10 percent profit and overhead.

If a corporation, what is the State of Incorporation? _____

If a partnership, state full names and addresses of all co-partners:

Name_____
Address_____
Signature_____
Firm Name_____
Title_____
Address_____
Employer I.D. No._____
Telephone No.

(SEAL) - if BID is by a corporation

ATTEST:

Secretary/Witness_____
Date

NON-COLLUSION AFFIDAVIT

STATE OF _____)

ss.

COUNTY OF _____)

_____, of lawful age, being first duly sworn, upon his oath, deposes and says, that he executed the accompanying bid on behalf of the bidder named therein for the construction of the above improvement for Northwestern Oklahoma State University, Alva, Oklahoma, that he had lawful authority to do so and that the bidder has not been a party to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding; or with any School, State or City official or employee as to quantity, quality, or price in the prospective contract, or any other terms of said prospective contract; or in any discussions between bidders and any School, State or City officials concerning exchange of money or other thing of value for special consideration in the letting of contract; said bidder has neither directly nor indirectly entered into any agreement, express or implied, with any bidder or bidders, having for its object the controlling of the price or amount of such bid or bids, the limiting of the bids or bidders, the parceling or farming out to any bidder or bidders, or other persons of any part of the contract or any part of the profits thereof and that he has not and will not divulge the sealed bid on such public improvement to any person whatsoever, except those having a partnership or other financial interest with him in said bid or bids, until after the sealed bids are opened.

Subscribed and sworn to before me this _____ day of _____, 20____.

Notary Public

My Commission Expires: _____

(SEAL)

BUSINESS RELATIONSHIPS AFFIDAVIT

STATE OF _____)

ss.

COUNTY OF _____)

_____, of lawful age, being first duly sworn, on oath says that (s)he is the agent authorized by the bidder to submit the attached bid. Affiant further states that the nature of any partnership, joint venture, or other business relationship presently in effect or which existed within one (1) year prior to the date of this statement with the architect, engineer, or other party to the project is as follows:

Affiant further states that any such business relationship presently in effect or which existed within one (1) year prior to the date of this statement between any officer or director of the bidding company and any officer or director of the architectural or engineering firm or other party to the project is as follows:

Affiant further states that the names of all persons having any such business relationships and the positions they hold with their respective companies or firms are as follows:

(If none of the business relationship hereinabove mentioned exist, affiant should so state.)

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

Notary Public

My Commission Expires: _____

(SEAL)

end of Form of Proposal

Section 00800 Supplementary General Conditions**GENERAL CONDITIONS:**

The "General Conditions of the Contract for the Construction", AIA Document A201 - 2007 is a part of this contract, and is incorporated herein as fully as if here set-forth. "Supplemental Conditions to General Conditions of the Contract for Construction", 2007 AIA Document A201 is a part of this contract, and is incorporated herein as fully as if here set-forth.

INSURANCE REQUIREMENTS:CONTRACTOR'S AND SUB-CONTRACTOR'S INSURANCE

The contractor shall not commence work under this contract until he has obtained all the insurance required under this paragraph and such insurance has been approved by the owner, nor shall the contractor allow any sub-contractor to commence work on his sub- contract until the insurance required of the sub-contract has been obtained and approved.

WORKMEN'S COMPENSATION INSURANCE

The contractor shall procure and shall maintain during the life of the contract, Workmen's Compensation Insurance and Death Liability Insurance for all of the employees engaged in work on the project under the contract, and in case any such work is sub-let, the contract shall require the sub-contractor similarly to provide Workmen's Compensation Insurance and Death Liability Insurance for all of the latter's employees engaged in such work unless such employees engaged in hazardous work on the project under this contract are not protected under Workmen's Compensation Statute, the contractor shall provide and shall cause each sub-contractor to provide adequate employer's general liability insurance for the protection of such of his employees not otherwise protected.

CONTRACTOR'S PUBLIC LIABILITY AND PROPERTY DAMAGE INSURANCE

The contractor shall procure and shall maintain during the life of this contract, Contractor's Public Liability Insurance in an amount not less than \$1,000,000 for injuries, including accidental death to any one person and subject to the same limit for each person in an amount not less than \$1,000,000 on account of one accident. The Contractor's Property Damage Insurance in amount of the initial contract sum as well as the subsequent modifications thereto for the entire work at the site on a replacement basis without voluntary deductibles is required.

SUB-CONTRACTOR'S PUBLIC LIABILITY & PROPERTY DAMAGE INSURANCE

The contractor shall require each of his sub-contractors to procure and to maintain during the life of his sub-contract, Sub-contractor's Public Liability and Property Damage Insurance of the type specified in sub-paragraph "C" hereof in the amount specified.

AUTOMOBILE PUBLIC & PROPERTY DAMAGE INSURANCE

Automobile Public Liability Insurance in an amount not less than \$1,000,000 single limit for injuries, including accidental death and property damage. Insurance for automobiles shall include: the contractor's owned automobiles and trucks, hired automobiles and trucks, and automobiles and trucks not owned by the contractor.

To the fullest extent permitted by law the Contractor shall indemnify, defend and hold harmless Northwestern Oklahoma State University, from and against any and all claims, demands, actions, causes of action, suits, liabilities, damages, losses, costs and expenses of any kind or nature whatsoever (including, without limitation, reasonable attorneys' fees and court costs incurred in enforcing this indemnity and otherwise) for bodily injury and property damage that arise out of or result from the negligent or wrongful acts or omissions of the Contractor and/or any party for whose negligent or wrongful acts or omissions the Contractor may be responsible, including without limitation any party retained by, through or under the Contractor in connection with the work.

SUPPLEMENTS: The following supplements modify, change, delete from or add to the "General Conditions of the Contract for Construction", AIA Document A201, Latest Edition. Where any Article of the General Conditions is modified or any paragraph, sub-paragraph or clause thereof is modified or deleted by these supplements, the unaltered provisions of that Article, Paragraph, Sub-paragraph or Clause shall remain in effect.

All policies of insurance provided by the Contractor or any of its Subcontractors or Sub-subcontractors pursuant to this section shall include clauses providing that each underwriter shall waive its rights of recovery, under subrogation or otherwise, against the Owner and each of their respective affiliates, agents, officers, directors and employees. The Contractor waives, and shall require all of its Subcontractors and Sub-subcontractors to waive in their respective subcontract and sub-subcontracts, any and all claims, damages, losses, costs, and expenses against the Owner and each of their respective affiliates, agents, officers, directors and employees to the extent such claims, damages, losses, costs and expenses are covered by insurance procured by Contractor or any of its Subcontractors or Sub-subcontractors pursuant to this Section.

The Contractor shall purchase and maintain Property Insurance (Builder's Risk) upon the entire work at the site to the full insurable value thereof. Such insurance shall be in a company or companies to which the Owner has no reasonable objection. There shall be no exclusion in this policy for damages due to wind, water, or hail.

EQUAL OPPORTUNITY

The Contractor shall maintain policies of employment as follows:

The Contractor and all Sub-contractors shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, or national origin. The Contractor shall take affirmative action to ensure that applicants are employed, and the employees are treated during employment, without regard to their race, religion, color, sex, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the policies of non-discrimination.

The Contractor and all Sub-contractors shall, in all solicitations or advertisements for employees placed by them or on their behalf, state that all qualified applicants will receive consideration for employment without regard to race, religion, color, sex or national origin.

end of section

Section 00100 Instructions to Bidders

The terms "Contractor or "Subcontractor" shall be interchangeable for the purpose of the plans and specifications and shall have the same meaning.

Each contractor on the project shall be responsible for the Section of work stipulated on his proposal and contract. Contractor shall be self-sufficient with all tools, devices, labor and materials necessary to complete the work contracted for. The project superintendent shall be on site and available for coordination and supervision of all trades.

Plans and Specifications

Plans and specifications may be obtained by applying to the Owner's office. Digital copies are available to qualified bidders at no cost. A Contractor's Standard AIA "Qualification Statement" is required prior to receipt of plans and specifications. Plans and specifications are on file in the Owner's office located at 709 Oklahoma Blvd.; Alva, Oklahoma, and are open for public inspection.

PRE-BID MEETING. The CONTRACTOR shall attend a mandatory pre-bid meeting on October 7, 2025 to familiarize themselves with the Project/Service, see existing conditions, and take measurements. No additional allowances will be made for lack of knowledge of these conditions.

Time and Place of Bid Opening

Sealed proposals submitted on the "Form of Proposal" as bound herewith will be received by Northwestern Oklahoma State University at the Board of Regents Board Room, located at the 2nd Floor of Herod Hall, 709 Oklahoma Blvd.; Alva, Oklahoma, until 3:00 P.M., on the 21st day of October, 2025. Proposals will be publicly opened and read aloud at this time. Proposals will be presented to the Board of Regents with the intent of immediate contract award. Proposals must be sealed to be considered.

Late/Early Bids:

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

Proposal Forms:

Bids must be submitted on the Form of Proposal bound herewith. All blank spaces on proposal form must be fully filled in with ink, and all amounts must be in words as well as figures. Signatures must be in longhand and executed by a principal duly authorized to make contracts. The completed form shall be without interlineation, alteration or erasure. Bids and affidavits must be filed with the Owner within time limits stated

Bid Security:

Proposals will not be considered unless the proposal is accompanied by a bidder's bond or proposal guaranty. Each proposal must be accompanied by a completed Business Relationships Affidavit, Non-Collusion Affidavit and a Certified Check, Cashier's Check, Surety Bid Bond, or an irrevocable letter of credit acceptable to the Owner in the amount equal to at least five (5%) percent of the gross amount of the base bid submitted, payable without condition to the Owner, as a guarantee that the bidder, if

awarded the contract after date of opening bids will promptly execute such contract and will furnish required bonds. Deposits will be returned to unsuccessful bidders.

Withdrawal of Proposal:

Proposal may not be withdrawn or modified after it has been filed and before the time set for opening proposals. Request for non-consideration of proposals must be made in writing, addressed to the Owner, and filed with the Owner before the time set for opening proposals. After other proposals are opened and read, the proposal for which withdrawal is properly requested will be returned unopened.

Irregular Proposals:

Any bid proposal that shows any omission, alteration of form, addition or condition not called for and any unauthorized alternate bid proposal shall be deemed irregular; however, the Owner reserves the right to waive technicalities and make the award in the best interest of the Owner.

Performance Maintenance, and Surety (Labor and Material Payment) Bond:

The Owner shall require the successful bidder to furnish Performance, Statutory Payment, Maintenance, Defect, and Surety bonds or Letters of Credit (in lieu of those bonds) covering faithful performance of all work in the contract and payment of all obligations arising thereunder, in such form as the Owner may prescribe and with such sureties as he may approve. Premium for this bond will be included in this Contractor's bid. These bonds must be furnished prior to commencing work on the project.

The successful contractor shall, upon completion of the project, protect the Owner against defective materials or faulty workmanship for a period of two years. The contractor, shall furnish a maintenance defect bond or irrevocable letter of credit for the above outlined maintenance term. This bond shall be in an amount not to exceed one hundred percent (100%) of the contract price. Any maintenance or warranty implied or written made by the contractor in excess of this maintenance period shall not be construed to be part of the performance or maintenance bond obligations, but shall be a separate and distinct obligation. (See Maintenance Bond below.)

Contractor shall purchase and provide a 2-year maintenance bond. Bond shall provide for payment to Northwest Oklahoma State University to cover all damage, loss, and expense which may result by reason of defective materials and/or workmanship in connection with said work, occurring with a period of two (2) years from and after acceptance of said project by the Owner.

Right to Reject Bids:

The Owner reserves the right to reject any or all bids and to waive informalities or minor irregularities in any bid.

No bidder may withdraw his bid within 30 days after the actual date of the opening thereof. Proposals shall be rejected for any of the following reasons:

Proposal received after the time limit for receiving proposals.

Proposal prices obviously unbalanced.

Total proposal price above the estimate of total cost.

Proposals that are incomplete insofar as the Non-Collusion Affidavit, Business Relationship Affidavit, required signatures, or containing material irregularities.

Bidder not pre-qualified unless prequalification is waived by the Owner.

Interpretation of Plans and Specifications:

If any person contemplating submitting a bid for the proposed contract is in doubt as to the true meaning of any part of the plans and specifications, he may submit an interpretation request to the Owner, who will send a written bulletin to all bidders.

The Owner will be responsible for any oral instructions.

Bulletins/Addendums:

Information contained in all bulletins and/or addendums to bidders is to be incorporated in the proposals and will become part of the contract documents.

Examination of Site:

Bidders shall examine conditions at the site. Proposals shall take into account existing conditions affecting work. Bidders shall be thoroughly familiar with the Contract Documents. The failure to do the foregoing shall in no way relieve the Bidder from any obligation in respect to his bid.

As a prerequisite to submitting a bid for this work, each bidder shall attend the pre-bid meeting to examine the premises, verify all measurements related to the work and be responsible for correctness of same. Contractor must satisfy himself as to existing conditions under which he will be required to work while on property. Contractor shall be responsible for any difference between actual dimensions and the measurements indicated on the drawings. The drawings are schematic and are to be used as a guide only and shall be verified by Contractor. Failure to do so will not be cause for additional claims for discrepancies in dimensions between drawings and actual dimensions as determined by Contractor.

Beginning and Completion of Construction:

All construction, after the Notice to Proceed, is to begin immediately and shall be 100% complete not later than the number of calendar days stated on the Form of Proposal.

The number of calendar days shall be written on the bid proposal form. Work shall proceed continuously without interruption until completion. Construction completion time and availability will be taken into consideration in award of contract. The Contractor shall prepare Schedule of Values and schedule of work for Owner's approval prior to beginning construction. The Contractor shall submit invoices for material and work when required by the Owner. It is the Owner's requirement to only disrupt power for final connections at a pre-approved time and date. All final connections shall be done at this time and shall be coordinated with utility services and their schedule.

Periodic Payments to Contractor:

The contract agreement between Owner and Contractor will provide payment of 95% of the cost of labor performed, materials suitably stored at the site, and materials built into the work as of the 20th day of each month. Request for payment shall be submitted by the 25th day of each month. Payment of

approved requests shall be made by the 25th day of the following month. Requests for payment made after the 25th day of the month will be included in the following month's requests. It shall be the Contractor's responsibility to submit his own request for payment. Request for payment shall be on AIA document G702 and G703. Request for payment shall be completed in full. Request for payment shall include an invoice affidavit as required by 74 Oklahoma Statutes, Section 3109. The retainage of 5% shall be held until work is accepted by the Owner in full.

Contract Form:

The Contractor will execute a contract in the form of AIA Document A 101, latest edition, between the Owner and Contractor for a Stipulated Sum. **NO WORK CAN COMMENCE BEFORE EXECUTION OF A WRITTEN CONTRACT.**

Taxes:

For purposes of your bid, do not include any local or state sales tax. The Owner will appoint the successful bidder its agent for purpose of receiving tax exempt status on purchase of materials for this Contract only. Authority Oklahoma Statute Article 68 Paragraph 1356(H), 1983.

Final Payment:

The Owner shall make a final payment when the work, as detailed and specified and material provided, is completed and accepted. The Contractor shall submit evidence that all payrolls, materials bills and all indebtedness connected with the work have been paid. The entire installation shall be inspected by the Owner representatives. Any defects or discrepancies in materials or workmanship shall be corrected by the Contractor before final acceptance and payment.

Failure to Complete Work On time/Liquidated Damages:

Time of completion is of great importance to the Owner and will be considered in the award of the contract. For each calendar day that any work shall remain uncompleted after the time agreed upon in the proposal or the contract, or as automatically increased by additional work or materials ordered after the contract is signed, or the increased time granted by the owner for the completion of work, the sum of \$250.00 per day will be deducted from the monies due the contractor, not as penalty but as liquidated damages.

The sum of money thus deducted for such delay, failure or non-completion is not to be considered as a penalty, but should be deemed, taken and treated as reasonable liquidated damages since it would be impractical and extremely difficult to fix the actual damages.

end of section

Section 00150 Scope of Work Summary**SCOPE OF WORK / PROJECT SPECIFICATIONS**Project Overview:

Replace windows for all windows in Herod Hall, Bell Tower and north side of the Student Center.

64 window openings - 48 openings in Herod Hall, 11 openings in the Bell Tower and 5 openings in Student Center. Many of the openings will have combination windows mulled together by either the manufacturer or installer.

Removal and disposal of existing windows.

New Specifications:

Quaker Windows; Model: H650

Thermal-Broken Aluminum Frame

LoE/Argon Insulated Glass - 1" OSM

Color: Bronze Frame

Fixed (non-operating) Units

Divided Light Bronze Internal Muntins (Grids) in Herod Hall

Opaque Glass in Dressing Room Area of Herod Hall and all of Student Center, although no muntins in Student Center units.

Spandrel Glass to be used to mask unsightly interior ceilings/utilities that are visible from the outside.

Tempered Glass where necessary by building codes.

Site Preparation:

Takeoff required by all bidders, specifying sizes and combination window types per opening.

Conduct a site visit to assess the current setup and any modifications needed.

Ensure all safety protocols are in place.

Meet with Campus Health and Safety and Director of Purchasing to coordination of machinery and on campus personal.

Removal and Disposal:

Safely disconnect and remove the existing windows.

Properly dispose of the old windows

Installation and Repairs:

Install all new windows to manufacturer's specifications.

Report damage discovered to Director of Purchasing ensure structural integrity of building. Repairs and costs associated will be adjusted if needed by way of a change order.

Repair cosmetic damage on both the interior or exterior after installation.

Documentation:

Provide all warranty information at project completion.

Timeline:

Provide a detailed timeline for the project, including site preparations (interior and exterior), removal and disposal, installation, and repairs.

Additional Information:

Bids should include a project total as well as totals for Herod Hall and the Student Center separately.

Bids may also be submitted to pay for materials separate from installation cost if outlined in bid submission otherwise all upfront costs will be the responsibility of BIDDER.

Attached Documentation Includes:

Exterior images of building

end of section

Section 01010 General Requirements**GENERAL:**

Furnish labor, materials and equipment to complete all work for Northwestern Oklahoma State University Window Replacement of Herod Hall, Bell Tower, and Student Center; Alva, Oklahoma, as indicated on the drawings and specified herein.

WORK IN GENERAL INCLUDES:

Removal and replacement of windows according to the specifications recommended by manufacturer. Existing windows are to be removed from the site and all debris cleaned up.

CONTRACTOR RESPONSIBILITY

The Contractor shall examine all surfaces on which or against his work is to be applied and shall notify Owner in writing if defects exist which he considers detrimental to installation of his material.

The Contractor must have a supervisory person on the site at all times when work is taking place who can represent the contractor in any matter related to prosecution of the contract.

Contractors are required to visit site of construction before preparing bids. Take into account existing conditions and dimensions in bid. Contractor is responsible for correct dimensions and quantities necessary, based on existing conditions. Failure to do so will not be cause for extras after the contract is signed, by reason of unforeseen conditions.

Contractor shall commence work immediately after the Owner issues a Notice To Proceed and shall be present at the jobsite during normal working hours and shall proceed to completion with due diligence. Work to be performed at times other than general week day shifts must be coordinated with the Owner. Unjustified delays, through no cause of the Owner, will not be tolerated and will be just cause to terminate contract.

Contractor shall coordinate with Owner to facilitate general progress of work. Each trade shall afford their trades reasonable opportunity for installation of work and material storage.

Temporary light, power, heat, water and sanitary facilities as they now exist are available for the performance of work under this contract. Additional or relocation of services shall be done at Contractor's expense.

Sanitary facilities: Furnish and install all required temporary toilet buildings with sanitary toilets for use of all workmen. Comply with minimum requirements of the health department. Maintain sanitary conditions at all times.

Verify lines, levels, dimensions. Report errors or inconsistencies prior to commencing work.

Furnish and maintain temporary ladders, scaffolds, etc., as required. Conform to Federal, State and Local laws applicable.

Provide temporary weather-tight enclosures for exterior openings; close at end of day's work.

Trade names, manufacturer's names or catalogue references used are to establish quality and design. Equal items, materials, acceptable only on written approval of Owner 14 days prior to bid date.

Manufactured articles, materials, equipment to be applied, installed, connected, erected, used, cleaned, conditioned as directed by manufacturer unless specified otherwise.

Contractor shall pay taxes as required, and shall comply with requirements of social security act and other taxes for workmen's benefit. See "Designation of Contractor as Agent for the Owner" for sales tax exempted.

All damage to existing pavement, grade, surfaces, and existing facilities, shall be repaired. Condition shall be same at completion of job as existing unless noted otherwise.

As a prerequisite to submitting a bid for this work, each bidder shall examine the premises of the work, verify all measurements at buildings and be responsible for correctness of same. Contractor must satisfy himself as to existing conditions under which he will be required to work while on property. Contractor shall be responsible for any difference between actual dimensions and the measurements indicated on the drawings. Measurements shall be verified by Contractor. Failure to do so will not be cause for additional claims for discrepancies in dimensions between drawings and actual dimensions as determined by Contractor.

CONTRACTOR USE OF PREMISES:

Contractor shall coordinate the allocation of work areas in such a manner as to not interfere with the schedules of the tenant.

Assume full responsibility for protection and safekeeping of products stored on premises.

Contractor shall provide all necessary precautions to protect public, visitors and Owner's personnel from construction activities. Owner reserves the right to stop contractor's work when weather conditions increase the risk of damage to grounds, building, public, automobiles and property.

BUILDING PROTECTION:

Contractor shall protect all his materials and work, whether incorporated on/in/adjacent to building or not; and replace all work damaged during his operations.

Before starting any work, protect against damage to all grounds, parking spaces, sidewalks, paving and face of building walls adjacent to work areas.

Provide adequate protection to prevent damage to surfaces where it is necessary to transport materials or equipment.

Provide other protection as required by OSHA, Owner, and other regulatory agencies.

WORK ON THE EXISTING BUILDINGS:

Controlled access to premises is permitted. Contractor shall be responsible for providing suitable and safe access to the work and "staging" areas.

Unless indicated otherwise, the Contractor shall daily, carefully, promptly and completely remove debris items from the premises as directed by the Owner. Do not store or permit items and debris to accumulate on site.

Promptly patch all openings where equipment is removed or installed to sound condition. Make building secure and watertight. Finish to match existing surfaces.

Thoroughly remove, clean and neutralize dirt, mastic, grease, oils or other materials from existing walls and surfaces, soiled by performance of work in this contract.

Where portions of areas are to be removed to perform new work, make a clean cut at joints or saw-cut. Exercise care to not damage surrounding work.

Workmanship and surface preparation for altered work shall be of same quality as for new construction.

Minor defects, blemishes, cracks, holes, etc. in existing work affecting finished appearance and/or proper performance of new work shall be corrected.

EXISTING OPERATIONS:

The existing buildings shall remain in operation while work is in progress. Perform work in such manner to interfere as little as possible with the existing operations. Coordinate access to all work areas and material storage with the Owner. Provide and maintain clean, safe, ample and direct access to building during construction. Post signs and barriers if traffic needs to be re-routed.

Notify Owner of items which will cause distraction or interruption of Owner's activity prior to beginning work.

SAFETY OF PERSONS AND PROPERTY

Initiate, maintain and supervise all safety precautions and programs in connection with the Work.

Take all reasonable precautions for the safety of, and provide all reasonable protection to prevent damage, injury or loss to:

All employees, visitors or public on the Work Site and other persons who may be affected thereby.

All the Work and all materials and equipment to be incorporated therein, and

Other property at the site or adjacent thereto.

Give all notices and comply with all applicable laws, codes, ordinances, rules, regulations and orders of any public authority bearing on the safety of persons and property, and their protection from damage, injury or loss.

Promptly remedy all damage or loss to any property caused in whole or in part by the Contractor, any sub-contractor, or anyone for whose acts any of them may be liable. Provide protection so as to minimize interference with and interruption to the building's employees and production process.

The Owner will not provide nor allow use of facilities for smoking or vaping. Smoking and/or vaping must be off site and away from university property.

Workmen shall be allowed access to only those areas as directed by the Owner's Representative.

SUBSTITUTIONS: Substitutions must be pre-approved by Owner. Substitutions must meet or exceed the same test standards and ratings contained in the specified system, with no exceptions. Substitutions must include the same minimum requirements for warranty and guarantee conditions.

SCHEDULES:

Contractor shall submit detailed drawings on all fabricated items. Such submittal shall be approved in writing before any fabrication is begun or equipment ordered.

When required, the Contractor shall demonstrate to the Owner specific items he proposes to use.

Schedule of Progress: The Contractor shall submit a schedule of progress to the Owner. This schedule should be of such form as to show the dates on which various branches of the work are to be started and finished. This schedule shall also include a space for beginning and execution of shop and setting drawings, and execution of the various parts of the work at project sites. The Contractor shall show the actual progress of the work each week.

GENERAL REQUIREMENTS:

Permits, Licenses, Ordinances, Regulations and Survey: Permit fee, as required by City Ordinances, and all other permits required by law, ordinances and rules shall be paid by the Contractor. All work to be performed shall conform to the International Building Codes and shall conform to the National Board of Fire Underwriters or its successor, the American Insurance Association.

Cooperation with City and State Building Officials: Cooperate with applicable officials at all times. If this official deems special inspection necessary, provide facilities so that he can conveniently examine and inspect the work. Notify this official in advance of all stopping and starting of construction.

Materials and Workmanship:

All materials and equipment shall be new, unless otherwise noted, and of quality specified and shall be free from defects of any kind. All equipment shall be complete in accordance with the Manufacturers standard specifications, and all material and equipment shall be installed according to the manufacturer's recommendations unless otherwise specified.

This Contractor is to include transportation to the site, storage, uncrating and installation of all equipment and materials furnished by him.

All labor shall be performed in the best and most workmanlike manner by mechanics skilled in their respective trades. The standard of work required throughout shall be of such grade as will bring results of first class only. Mechanics whose work is unsatisfactory to the Owner, or are considered by the Owner as being unskilled or otherwise objectionable, shall be instantly dismissed from the work upon written notice from the Owner.

Changes in the Work: Any authorization by the Contractor to make changes in the work shall be authorized by the Owner in writing, but requests by the Contractor may be verbal.

Notification: The Contractor shall give the Owner verbal notification at least 48 hours prior to commencing various operations, including beginning of any tear off.

Close Out:

Close out submittals, provide:

Operation, Maintenance Data. Bound copy.

Guarantees, Warranties, Bonds specified.

Extra maintenance, repair materials, tools.

As-Built record plans, specifications, documents.

Instruct Owner's personnel in operation of all systems and maintenance requirements.

Substantial Completion:

Certify that project substantially complete.

Inspection within seven days by Owner.

Final Inspection:

Contractor certify project is ready for final inspection.

Owner: make final inspection within seven days or as scheduled with Contractor.

Evidence of payments, Release of Liens:

Affidavit of Payment AIA G706.

Affidavit of Release of Liens: AIA G706A.

Guarantees: Maintenance/Defect Bond is required. Whenever, within Guarantee period stated, the Contractor is notified by the Owner that any item of equipment, material and/or workmanship has proved defective or is not in any way meeting the specifications requirements, he will immediately replace, repair or otherwise correct the defect or deficiencies without cost to the Owner.

end of section

Section 01060 Regulatory Requirements**GENERAL:**

Contractors and their personnel shall be required to adhere to Owner's regulated safety and housekeeping policies. Housekeeping must be performed daily by each trade. If not, Owner shall perform housekeeping and deduct charges from the contract.

Contractors and personnel shall strictly adhere to OSHA requirements for safety, and employment procedures and requirements prescribed by law.

Comply with the following:

National Electric Code, NFPA No. 70 (Latest edition).

IES-Lighting Handbook (Latest Edition).

NFPA-Code 90A; Installation of Heating and Air Conditioning and Ventilating Systems.

NFPA-Code 101; Safety to Life from Fire in Buildings and Structures.

Occupational and Health Standards (29 CFR-Part 1910).

National Association of Plumbing, Heating, Cooling Contractors-National Standard Plumbing Code.

American National Standards Institute.

International Building Codes, Latest Edition.

Life Safety Codes.

Quality Assurance:

For products or workmanship specified by association, trade, or Federal Standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.

Conform to reference standard by date of issue current on date for receiving bids.

Obtain copies of standards when required by Contract Documents.

Maintain copy at jobsite during submittals, planning, and progress of the specific work, until Substantial Completion.

Should specified reference standards conflict with Contract Documents, request clarification from university before proceeding.

The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document, submittal or shop drawing.

end of section

Section 07920 Caulking and Sealants**GENERAL:**

Work Includes: Caulking and sealing of joints around openings in exterior walls, and other spaces noted on drawings to be caulked or sealed. Use caulking compound except where sealant is noted on drawings or specified.

Comply with quality control, references, specifications, and manufacturer's data. Products containing asbestos are prohibited on this project. Use only asbestos free products.

Use products with personal protection. User must read container label and material safety data sheets prior to use, and take necessary precautions.

Submittals:

Provide product data sheets, material safety data sheets, samples of each material specified, properly labeled, manufacturer's standard color and finish charts/samples, manufacturer's warranty.

Guarantee all work, materials and installations for a period of 1 year from the date of Substantial Completion. Guarantee shall cover any defect in operation or appearance, failure or blemish due to improper installation, material defect or workmanship. All defective items shall be replaced immediately at no cost to the Owner.

PRODUCTS:

Caulking Compound: (Conventional Type) Oil soluble elastomer; organic 100% solids; putty consistency to remain soft and tacky; non skimming; high water resistancy with excellent metal adhesion. Horn "Vulcatex", Kuhls "Elastic", Sonneborn "Kaukit", Pecora.

Sealant (Thiokol Type): Chem-seal CS-2400, 3M "Weatherban", PRC Rubber Caulk, or G.E. Silicone Sealant 1600.

Color of Compound and Sealant: Approximate color of adjacent surfaces, unless directed otherwise.

Primer: Made or recommended by manufacturer of the compound or sealant.

Sealant Gasket: Gasket for sealant shall be approved type butyl rod or polyfoam in sizes as recommended for joints involved.

Caulking Rope: Resilient extruded gasket, 3M EC-1020, or approved 1/4" bead size.

Rope Yarn: Raveled strands of non-staining fiber or cotton wicking.

Glass Fiber: Owens-Corning "Fiberglass Caulking Strip" or approved 2-1/2" x 2-1/2" size.

Fire-rated Joint Sealant: 3M Fire Barrier IC 15WB+ Sealant.

EXECUTION:**Examination:**

Verify conditions as satisfactory to receive work.

Do not begin sealant work until all unsatisfactory conditions are corrected. Beginning work constitutes acceptance of conditions.

Preparation:

Ensure joints are free of latent moisture and are adequately and properly cured prior to application of sealants.

Ensure joint faces are dry, clean, and free of any foreign materials prior to sealing. Prime unpainted surfaces to be caulked or sealed.

Ensure joint widths are as shown on drawings.

Avoid contamination of waterproofing, form release and curing agents. Strictly adhere to manufacturer's instructions.

Filled joints:

Preparation: Be sure that joints are clean and dry ready for caulking or sealing. Prime unpainted surfaces to be caulked or sealed.

Caulking Rope: Provide for cracks where caulking or sealing is not feasible. Install in accordance with manufacturer's directions before tightening mating surfaces.

Rope Yarn and Glass Fiber: Joints to be sealed, when more than 1/2" deep, pack with glass fiber to within 1/4" of surface. Joints to be caulked, where more than 3/4" deep, pack with rope yarn or glass fiber within 1/2" of surface.

Caulking and Sealing:

Protection: Mask surfaces adjacent to joints as required for complete protection.

Workmanship: Mix and apply sealant in accordance with manufacturer's directions. Caulk or seal joints before final coat of paint is applied. Fill joints and voids solid; superficial pointing with skin bead not accepted. Remove excess material; leave surfaces neat, clean and smooth.

Caulk around all exterior openings. Apply as per manufacturer's recommendations.

Cleaning: Immediately remove excess sealant adjacent to joint with Xylol or Toluol. Use clean tools and equipment.

end of section

Section 08520 Aluminum Windows**GENERAL:**

Section Includes:

Operating and Fixed Historic Aluminum Window Units

Single-Hung Aluminum Windows.

Glass and Glazing for Aluminum Windows.

Wood Blocking, Shims, Anchors, Clips, and all accessories necessary for a complete installation furnished and installed.

All aluminum trim and closure pieces

Installation labor, tools, equipment, and services necessary for installation of Aluminum Windows.

Related Sections:

Joint Sealants

REFERENCES

Aluminum Association (AA)

DAF-45 – “Designation System for Aluminum Finishes”

American Architectural Manufacturers Association (AAMA):

101 – “Voluntary Performance Specification for Windows, Skylights and Glass Doors”

502 – “Voluntary Specification for Field Testing of Newly Installed Fenestration Products”

611 – “Voluntary Specification for Anodized Architectural Aluminum”

1503 – “Voluntary Test Method for Thermal Transmittance and Condensation Resistance of Windows, Doors and Glazed Wall Sections”

2400 – “Voluntary Specification for Installation of Windows with a Mounting Flange in Stud Frame Construction”

2604 – “Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels”

2605 – “Voluntary Specification, Performance Requirements and Test Procedures for Superior Performance Organic Coatings on Aluminum Extrusions and Panels”

CW-10 – “Care and Handling of Architectural Aluminum from Shop to Site”

American National Standards Institute (ANSI) Publications

Z97.1 – “Performance Specifications and Methods of Test for Safety Glazing Materials Used in Buildings”

ASTM International (ASTM) Publications:

C518 – “Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus”

C1036 – “Standard Specifications for Flat Glass”

C1048 – “Standard Specifications for Heat-Treated Flat Glass – Kind HS, Kind FT Coated and Uncoated Glass”

D3985 – “Standard Test Method for Oxygen Gas Transmission Rate Through Plastic Film and Sheeting Using a Coulometric Sensor”

E90 – “Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements”

E283 – “Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen”

E330 – “Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors By Uniform Static Air Pressure Difference”

E331 – “Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors By Uniform Static Air Pressure Difference”

E413 – “Classification for Rating Sound Insulation”

E547 – “Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Differential”

E774 – “Standard Specification for Sealed Insulating Glass Units”

E1886 – “Standard Test Method for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Missile(s) and Exposed to Cyclic Pressure Differentials”

E1996 - “Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors and Impact Protective Systems Impacted by Windborne Debris in Hurricanes”

F588 - “Standard Test Methods for Measuring the Forced Entry Resistance of Window Assemblies, Excluding Glazing Impact”

F1249 – “Standard Test Method for Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor”

Glass Association of North America (GANA):

“GANA Glazing Manual”

Federal Specifications (FS) Publications:

FS-RR-W-365A “Wire Fabric (Insect Screening)”

Insulating Glass Certification Council (IGCC)

Insulating Glass Manufacturers Alliance (IGMA) Publications:

Glazing Guidelines

National Fenestration Ratings Council (NFRC)

Screen Manufacturers Association (SMA) Publications:

1004 “Specifications for Aluminum Tubular Frame Screens for Windows”

U.S. Consumer Product Safety Commission (CPSC) Publications:

16 CFR Part 1201 “Safety Standard For Architectural Glazing Materials”

Window and Door Manufacturers Association (WDMA) Publications:

ANSI/AAMA/WDMA 101/I.S.2/NAFS-02 “Voluntary Performance Specification for Windows, Skylights and Glass Doors”

AAMA/AAMA/WDMA/CSA 101/I.S.2/A440-05 “Standard/Specification for Windows, Doors and Unit Skylights”

SUBMITTALS

Submit "Letter of Conformance" in accordance with General Requirements – with the following supporting data:

Product data for each type of aluminum window specified, including standard construction details, dimensions of individual components, profiles, finishes, hardware, and accessories.

Shop drawings for each type of window specified, including ¼-inch scale wall elevations, typical unit elevations at ¾-inch scale details, full size details of typical composite members and the following:

Panning Details

Flashing and drainage details.

Mullion details, including reinforcement and stiffeners.

Joinery details.

Samples: Provide full-size or partial-size sample of window illustrating glazing system, quality of construction and finish.

Product certificates signed by the window manufacturer certifying that window units comply with specified performance requirements.

Submit certified independent laboratory test reports verifying compliance with all test requirements of 1.05 PERFORMANCE REQUIREMENTS as requested by Owner.

DEFINITIONS

Performance grade number, included as part of the AAMA/WDMA/CSA 101/I.S.2/A440-05 product designation code, is actual design pressure in pounds force per square foot used to determine structural test pressure and water test pressure.

PERFORMANCE REQUIREMENTS

Certify that windows have been tested in accordance with American Architectural Manufacturers Association (AAMA/WDMA) Specification for Performance Class specified complying with the following performance standards:

AAMA/WDMA/CSA 101/I.S.2/A440-05 Performance Requirements: Provide aluminum windows of the performance class and grade indicated that comply with AAMA/WDMA/CSA 101/I.S.2/A440-05.

Performance Class: H-HC

Performance Grade: 40

Uniform Structural Properties (ASTM E330): Pressure acting inward and outward. Window to be operable with permanent deformation at a maximum of 1/175 of its span, when tested at a static air pressure difference of the following:

Class H-HC-40: 60.0 PSF

Water Resistance (ASTM E331 and ASTM E547): No water penetration at test pressure indicated.

Class H-HC-40: 6.00 PSF

Air Leakage (ASTM E283):

Single-Hung Windows: Maximum 0.20 CFM per sq./ft. of total exterior surface area, when tested at a static air pressure differential of 6.24 PSF minimum.

Fixed Windows: No air leakage when tested at a static air pressure difference of 6.24 PSF minimum.

Project Wind Loads: Design wind pressure, both positive and negative shall be as required by the International Building Code, as calculated from ANSI A58.1. Minimum for positive and negative pressure is 10.0 psf.

QUALITY ASSURANCE

All window units shall be manufactured by a single source.

All windows in any one project must be by the same manufacturer and with comparable frame depth, profile, glazing bite, and installation requirements. Manufacturer must provide a window system that can incorporate all window configurations used on the project.

Standards: Requirements for aluminum windows, terminology and standard of performance, and fabrication workmanship are those specified and recommended in AAMA/WDMA/CSA 101/I.S.2/A440-05 and The Aluminum Association (AA).

All window units shall be labeled as conforming to AAMA/WDMA/CSA 101/I.S.2/A440-05. The label shall state the name of the manufacturer, the approved labeling agency and the product designation as specified in AAMA/WDMA/CSA 101/I.S.2/A440-05.

All testing shall be conducted using AAMA/WDMA/CSA 101/I.S.2/A440-05 Gateway Performance minimum specified test sizes.

DELIVERY, STORAGE AND HANDLING

Transportation and Handling: Transport products by methods to avoid product damage, deliver in undamaged condition in manufacturer's unopened containers or packaging. Provide equipment and personnel to handle products by method to prevent soiling or damage. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.

Storage and Protection: Store products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight enclosures; maintain with temperature and humidity ranges required by manufacturer's instruction.

WARRANTIES

Aluminum Window Warranty

Products: Submit a written warranty, executed by the window manufacturer, for the following:

Framing and sash components: A period of (1) year from the date of manufacture, against defective materials and workmanship, including substantial non-compliance with applicable specification

requirements and industry standards, which results in premature failure of the windows or parts, outside of normal wear.

Insulated glass units: A period of (5) years from the date of manufacture, against insulated glass seal failure unrelated to glass breakage.

In the event that windows or components are found defective, manufacturer will repair or provide replacements without charge at manufacturer's option.

Finish: Refer to Part 2, Section 2.06 "FINISHES" for warranty requirements.

Warranty for all components must be direct from the manufacturer (non- pass through) and non-prorated for the entire term. Warranty must be assignable to the non-residential owner, and transferable to subsequent owners through its length.

Installation: Submit a written warranty, executed by the window installer, for a period of (1) year from the date of substantial completion, against defective materials or workmanship, including substantial non-compliance with applicable specification requirements, which result in premature failure.

In the event that installation of windows or components is found to be defective, installer will repair or provide replacements without charge at the installer's option.

PRODUCTS

MANUFACTURERS

Approved Manufacturers:

Quaker Window Products Company, Inc. (800) 347-0438

Fixed Window: "H650 DS Series"

Substitutions: Submit the following information with proper documentation as required for pre-bid substitution requests, and at least (14) working days prior to bid date.

Independent test reports certifying that proposed product is in accordance with, and meets all criteria specified in Section 1.05 "PERFORMANCE REQUIREMENTS".

Drawing details of elevations and sections, and samples in accordance with, and as specified in Section 1.03.

SUBMITTALS

Copy of manufacturer's warranty specified in accordance with, and as specified in Section 1.08 "WARRANTIES".

Any additional information requested by the Owner.

MATERIALS

Aluminum Members:

Extruded aluminum prime billet 6063-T6 alloy for primary components, 6063-T6, or 6061-T6 for structural components, all in accordance with (ASTM B221).

Structural Thermal Barrier Construction:

Frame and sash members shall include a structural thermal barrier, applied in the manufacturer's facility, using concealed low-conductance poured-in-place polyurethane in a pre-treated cavity.

After proper curing, the aluminum bridge section must be removed to provide a 3/8" minimum separation between interior and exterior metal surfaces.

The thermal barrier cavity shall have a manufactured mechanical lock applied consisting of abrading or lancing of the extrusion cavity prior to application of poured-in-place polyurethane.

Thermal Break Performance Requirements:

Thermal conductivity of barrier material: maximum 0.84 BTU-in/(hr-ft²-°F) in accordance with (ASTM C 518).

Systems employing non-structural thermal barriers, or barrier systems absent of a mechanical lock application are not acceptable.

MANUFACTURED UNITS

Principal window frame members shall have a minimum 0.070" outside wall thickness which includes all mounting webs and sectional flanges.

Window frame depth shall be 4 1/8" minimum.

Glazing: Refer to Section 2.05 "GLASS MATERIALS".

COMPONENTS

All fasteners, tools, equipment, and other materials necessary for a complete installation shall be furnished by the Contractor.

Aluminum, nonmagnetic stainless steel, epoxy adhesive, or other materials warranted by the manufacturer to be noncorrosive and compatible with all window members, cladding, trim, hardware, anchors, and other components.

Thermoplastic or thermo-set plastic caps, housings, and other components to be injection-molded nylon, extruded PVC, or other suitable compound.

Accessories:

Sills: Manufacturer's standard exterior sills, as shown on Drawings.

Sill Flashing: manufacturer's standard snap-on type, if required as shown on Drawings.

Trim: Manufacturer's standard interior snap trims, type as shown on Drawings.

Mullions: Provide mullions and cover plates as shown, matching window units. Allow for erection tolerances and provide for movement of window units due to thermal expansion and building deflections, as indicated. Provide mullions and cover plates capable of withstanding design loads of window units.

Muntins:

Simulated Divided Lite Muntins:

Composition shall include:

Exterior applied extruded aluminum Muntin of specified width, continuously adhered to surface of glass with a high performance acrylic adhesive system.

Roll formed aluminum of specified width, located between glass panes within the sealed insulating glass unit.

Interior applied extruded aluminum Muntin of specified width, continuously adhered to surface of glass with a high performance acrylic adhesive system.

Finish of Exterior and Interior applied muntin components shall comply with Section 2.06 "FINISHES".

Finish color of Exterior and Interior applied muntins, and internal muntins shall match Window Frame.

GLASS MATERIALS:

Coated Low Emissivity Glass: Type 1 (transparent glass, flat), Class 1 (clear), Quality q3 (glazing select), with coating type and performance characteristics complying with requirements specified below:

"LoE³-366"; Cardinal Industries

Approved Substitution by Owner.

Whole Window U-Value shall be a maximum of 0.30.

Solar Heat Gain Coefficient shall be a maximum of 0.24.

Where obscured glass is required, the pattern shall be Cardinal 62.

Where spandrel glass is required, the spandrel coating shall be Cardinal Spandrel Black, and shall be fully tempered.

Tempered Glass: Condition A (uncoated surfaces), Type 1 (transparent glass, flat), Class 1 (clear), Quality q3, clear, fully tempered safety glass (meet requirements of ANSI Z97.1).

All tempered glass shall conform to ASTM C1048, ANSI Z97.1, and CPSC 16 CFR Part 1201. Tempered glass shall bear permanent monogram indicating tempered quality. Fabrication marks on tempered glass shall be located to be concealed in completed installation.

Windows shall be glazed as follows:

Sound Transmission Class (STC) (ASTM E413): Provide glazing required for conforming to overall STC ratings as specified for aluminum windows.

Insulating Glass: Manufacturer's standard units that comply with specified quality standards and coatings.

Provide preassembled units consisting of organically sealed panes of glass enclosing a hermetically sealed dehydrated air space and complying with ASTM E774 for performance classification indicated as well as with other requirements specified for glass characteristics, air space, sealing system, sealant, space material, and desiccants.

Total thickness: 1"

Thickness of Each Pane: as necessary to meet structural performance criteria.

Air Space: argon gas filled

Exterior Pane of Glass:

Provide tempered glass where shown on Drawings and as required by local codes and ordinances.

Insulating Unit Sealing System: Insulating glass unit spacer system must include a secondary dual seal. This also applies to solid foam warm edge seal glass spacer systems.

FINISHES

Finish of Aluminum Components

Finish of all exposed areas of aluminum windows and components shall be applied in accordance with the appropriate AAMA Voluntary Guide Specification shown below:

Superior Performance Organic Powder Coating conforming to (AAMA 2605), Voluntary Specification, Performance Requirements and Test Procedures which also meets the following standards:

Powder Coating resin shall consist of Fluoroethylene Vinyl Ether (FEVE).

Coatings which require a chrome based liquid primer or pretreatment are not allowed.

Scratch resistance shall meet or exceed a pencil test of H in accordance with (ASTM D3363-00), "Standard Test Method for Film Hardness by Pencil Test".

Abrasion resistance shall meet or exceed a Taber abrasion test of 1000 rotations in accordance with (ASTM D4060-14), "Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser".

Finish Warranty Period: 15 years from date of manufacture

Color Selection: as selected from manufacturer' standard colors

FABRICATION

Fabricate windows allowing for minimum clearances and shim spacing around perimeter of assembly yet enabling installation.

Rigidly fit joints and corners. Accurately fit and secure corners tight. Make corner joints flush, hairline, and weatherproof. Seal corner joints with sealant.

Develop drainage holes with moisture pattern to exterior.

Prepare components to receive anchor devices. Fabricate anchorage items.

EXECUTION**EXAMINATION**

Site Verification of Conditions:

Verify that building substrates permit installation of windows according to the manufacturer's instructions, approved shop drawings, calculations and contract documents.

Do not install windows until unsatisfactory conditions are corrected.

INSTALLATION**Erection of Aluminum Windows**

Install windows with skilled tradesmen in exact accordance with approved Shop Drawings, Installation Instructions, Specifications, and in accordance with (AAMA 101/I.S.2/ A440-17).

Windows must be installed plumb, square, and level for proper weathering and operation. Jambs must not be "sprung", bowed, or warped during installation.

Any uncoated aluminum components of Aluminum Window shall be insulated from direct contact with steel, masonry, concrete, or other dissimilar metals by bituminous paint, zinc chromate primer, nonconductive shims, or other suitable insulating materials.

ADJUSTING AND CLEANING

After completion of window installation, windows shall be inspected, adjusted, put into working order and left clean, free of labels, dirt, or other debris. Protection from this point shall be the responsibility of the General Contractor.

end of section

Attachment: Exterior Herod Hall pictures





Attachment: Bell Tower pictures



Attachment: Student Center pictures

