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SPECIFICATION

FOR

WINDOW REPLACEMENT

STATE HISTORICAL AND LIBRARY BUILDING
East 12th and Grand Avenue
Des Moines, Iowa

Prepared by

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Division of Architectural and Engineering Services,
acting under the direction
of the
Iowa State Executive Council

EXECUTIVE COUNCIL, STATE OF IOWA

Stephen C. Robinson, Secretary

IOWA STATE TRAVELING LIBRARY.

TITLE SHEET

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ADVERTISEMENT

Window Replacement
State Historical and Library Building
East 12th and Grand Avenue
Des Moines, Iowa

STATE OF IOWA:

Sealed bids will be received by the Executive Council of the State of Iowa at the office of the Secretary of the Executive Council, Iowa State Capitol Building, Des Moines, Iowa until 2:00 P.M., C.D.S.T., July 10, 1968, for the "Window Replacement, Historical and Library Building, East 12th and Grand Avenue, Des Moines, Iowa".

A certified check drawn upon a solvent bank in an amount of five per cent (5%) of the bid and made payable to the Executive Council, State of Iowa shall be filed with each proposal as a guarantee that the accepted bidder will enter into a contract with the State and file an approved surety company bond for the faithful performance thereof. Upon failure to comply said bid security shall be forfeited as liquidated damages.

Plans and specifications and proposal forms for the work may be seen and secured by bidders at the office of the Architect, 6th Floor, Lucas State Office Building, Des Moines, Iowa.

Plans and specifications will be placed on file at the following builders plan exchange rooms for the use of contractors:

Master Builders of Iowa, 10th and Walnut, Des Moines, Iowa
F. W. Dodge Corp., 3804 Douglas Avenue, Des Moines, Iowa
F. W. Dodge, Corp., 3929 Harney, Omaha, Nebraska
A.C.I. Plan Room, 1110 "G" Avenue, N.E., Cedar Rapids, Iowa
Building Trade Employers Ass'n., Box 419, Waterloo, Iowa
North Iowa Builders Exchange, 823 Brick and Tile Building, Mason City, Iowa
Ft. Dodge Chamber of Commerce Plan Room, Warden Building, Ft. Dodge, Iowa
Quad-City Builders Club, 522-24th St., Rock Island, Illinois

Sets of plans and specifications will be loaned to qualified bidders upon request.

All proposals shall be filed on the forms furnished, shall be sealed and shall be plainly marked. The Executive Council reserves the right to reject any or all bids and to accept the proposal which appears to be for the best interest of the State.

By Order Of

EXECUTIVE COUNCIL, STATE OF IOWA
Iowa State Capitol Building
Des Moines, Iowa

Stephen C. Robinson, Secretary

PROPOSAL FORM

2:00 P.M., C.D.S.T.
July 10, 1968

Re: Window Replacement
State Historical and Library Building
East 12th and Grand
Des Moines, Iowa

Executive Council, State of Iowa
Iowa State Capitol Building
Des Moines
Iowa

Gentlemen:

The undersigned having carefully examined the Architects plans and the accompanying specifications for the Window Replacement in the State Historical and Library Building, East 12th and Grand Avenue, Des Moines, Iowa, hereby proposes to furnish the necessary material and perform all necessary labor to complete the installation in accordance with said plans and specifications for the sums stated below:

COMPLETE CONTRACT BASE BID FOR THE TOTAL SUM OF:

_____ (DOLLARS) \$

ALTERNATE #1 - ADD _____

(DOLLARS) \$

Receipt of addenda number ____, ____, ____, and ____ is hereby acknowledged and included in this proposal.

Accompanying this proposal is the required deposit guaranteeing execution of contract and furnishing bond if the undersigned is the successful bidder the same being subject to forfeiture in event of default by the undersigned.

In submitting this bid it is understood that the right is reserved by the Owner to reject any or all bids.

It is estimated that this project can be completed in _____ months.

Respectfully submitted,

OFFICIAL ADDRESS:

PART 1

SUPPLEMENTARY GENERAL CONDITIONS

1-1. Scope

"THE GENERAL CONDITIONS OF THE CONTRACT", A. I. A. Form #A-201, LATEST EDITION, SHALL BE INCLUDED AND BOUND WITH "THE STANDARD FORM OF AGREEMENT BETWEEN CONTRACTOR AND OWNER", A. I. A. FORM #101, LATEST EDITION, AS A PART OF THIS CONTRACT.

1-2. Contractors' Bids

Generally, all bids received by the Architect which require appropriation of allocated state funds are subject to the acceptance by the Executive Council, State of Iowa. Each prime bidder, subcontractor and material supplier on this project agrees to guarantee his proposal for a period of forty-five (45) days after the date of receiving of bids.

Each Contractor's bid proposal shall be accompanied with a certified check or cashier's check in the total amount of five per cent (5%) of the total amount bid.

1-3. National Emergency

The provisions of law, as contained in House File 288 by the 54th General Assembly of Iowa, shall apply to contracts that may be awarded as a result of this proposal. This law provides for the termination of contracts caused by a national emergency.

1-4. Tax Refund

In accordance with Iowa law, the Contractor shall pay all Iowa sales and use taxes for all materials incorporated in the project under this contract. The Contractor shall file with the Owner two copies of State Tax Commission Form ST-172 properly completed, stating the name and address of material suppliers, type of material purchased, total price, amount of sales and use tax paid, and to whom paid and when. Form ST-172 shall be filed and approved by the Iowa State Tax Commission before final payment can be made.

1-5. Bonds

The Contractor shall furnish the Owner with a properly-executed "Performance and Payment Bond", A. I. A. Form A-311, Latest Edition, both in the amount of 100 per cent of the contract sum, as security for the faithful performance of this contract and as security for the payment of all persons performing labor and/or furnishing materials under this contract. The bond shall be executed in triplicate by an Iowa resident agent, each with an attached notarized power of attorney. The performance bond shall include a maintenance clause to secure the performance of the guarantee as hereinafter specified.

- (1) Bodily injury liability insurance in an amount not less than \$100,000 for injuries, including accidental death, to any one person, and subject to the same limitation for each person, in an amount not less than \$300,000 on account of any one accident;
- (2) Property damage insurance in an amount not less than \$50,000 for damages on account of any one accident.

(c) Automobile Insurance

The Contractor shall take out and maintain during the life of this contract, automobile public liability insurance in amounts not less than \$100,000 and \$300,000 and property damage in amounts not less than \$50,000, if any motor vehicles are engaged in the operation, within the terms of this contract, on the site of the work to be performed thereunder, covering the use of all such motor vehicles, owned, rented and non-owned.

(d) Builder's Risk Insurance (Optional)

Each Contractor holding a valid contract with the Owner shall furnish and pay for builder's risk insurance, providing coverage for at least the following losses, fire, extended coverage, vandalism and malicious damage for materials incorporated in the project, materials purchased, to be incorporated in the project, stored either on or off the permanent job site. If this insurance coverage is not provided, the Contractor shall assume all responsibility for the perils outlined above which may occur prior to project completion and acceptance.

1-8. Guarantee

The Contractor shall guarantee all work executed under this contract, both as to workmanship and materials, for a period of twelve (12) months after the date of acceptance, except that special guarantee provisions specified elsewhere in these specifications shall take precedence. Neither the final certificate of payment nor any provision of the contract documents shall relieve the Contractor of responsibility for faulty materials or workmanship and he shall remedy any defect thereto and pay for any damage to other work resulting therefrom, which shall appear within a period of one year from the date of acceptance.

1-9. Plans and Specifications

The plans and specifications are to remain on file at the office of the Architect and in the office of the Capitol Building and Grounds Department. Unless otherwise specified in the agreement, the Architect shall furnish to the Contractor all copies of drawing plans and specifications reasonably necessary for the execution of the work.

1-14. Payments - Application For

Payments on contract will be made monthly by means of state warrants to the extent of ninety per cent (90%) of the value of work performed, including acceptable material stored at the building site, as determined by the Architect.

The Contractor shall submit to the Architect an application for each payment, and if required, receipts or other vouchers from sub-contractors showing his payment to them for materials and labor. Payments are to be made on valuation of work done and materials furnished and the application therefor shall be submitted at least ten (10) days before each payment falls due. By "materials furnished" is meant materials incorporated in the work and materials suitably stored at the site.

The Contractor shall, before the first application, submit to the Architect a schedule of values of the various parts of the work, aggregating the total sum of the contract, made out in such form as the Architect may direct and, if required, supported by evidence as to its correctness. This schedule, when approved by the Architect, shall be used as a basis for certificates of payment, unless it be found to be in error.

In applying for payments, the Contractor shall submit a statement based upon this schedule and itemized in such form as the Architect may direct, showing his right to the payment of the claim, and shall, if the Architect requires, furnish vouchers showing payment of all materials furnished and labor performed.

Final payment shall be authorized not later than thirty (30) days following the completion and final acceptance of the contract, providing that paragraph 1-4 herein and all other contract requirements have been fulfilled, accepted and approved.

1-15. Certificates and Payments

The Architect shall, not later than the date when the payment falls due, issue to the Contractor a certificate for such amount as the Architect decides to be properly due.

No certificate issued, no payment made to the Contractor, no partial payment, nor the entire use or occupancy of the work by the Owner shall be held to constitute an acceptance, in whole or in part, by the Owner prior to making the final payment and acceptance in full completion of the contract.

1-16. Protection

The Contractor shall furnish all permanent and temporary guards, signs, fencing shoring and underpinning and other protection necessary in the performance of the contract and for the necessary protection of all public and private property and shall be responsible for any damage caused by failure to comply with this requirement.

shall verify the voltage available and provide all connecting switches, fuse protection and wiring necessary to provide temporary light and power throughout the building until the building services are ready for use. No charge will be made for current used, but Contractor shall avoid unnecessary usage or overloading of the service provided.

(c) Temporary Water

Water shall be furnished by the Owner at no charge from a nearby building or hydrant for the Contractor's use during construction. The Contractor shall furnish and maintain all necessary hoses and/or piping from this point.

(d) Temporary Toilet

Temporary toilet facilities shall be provided and maintained by the Contractor in a screened and sanitary manner as instructed by the Architect. The Contractor shall remove and close over this facility when the building plumbing becomes available.

(e) Temporary Heat

The General Contractor shall provide for all temporary heat, including all fuel and labor, required to protect enclosed spaces until the permanent heating is installed and properly operating. Temporary heating equipment and operation shall be subject to the specific approval of the Architect prior to placing equipment in operation. All temporary piping or wiring shall be furnished and installed by the General Contractor. Steam will be provided by the State for use in operation of the permanent heating system after it is installed, checked and proved operational. The permanent heating system shall be cleaned and returned to new condition before final acceptance of the project.

(f) Construction Office

Temporary office space shall be provided by the Contractor for his office use and storage of tools. Contract plans and specifications shall be maintained in this office for the use of all interested parties.

(g) Telephone

Telephone service shall be provided and maintained by the General Contractor throughout the construction period of local exchange on projects over \$100,000 contract valuation. All contractors shall be allowed free use of the telephone for local calls only. Providing a telephone shall be optional for projects of less than \$100,000.

Where cutting of walls or floors is required, each trade shall do the cutting necessary for the installation of its own work.

The General Contractor is to see that inserts, sleeves, hangers and conduits for heating, plumbing, and wiring are in position before concrete floor is poured, and shall at once notify the Architect of any delay on this account. This applies to all trades.

1-24. Tests

The Contractor shall provide, at his own expense, certified inspection and test reports for all materials and equipment incorporated in the project, as required by the Architect, to verify the quality, standards and performance of the item questioned.

All concrete placed in this project shall be automatically included for testing of aggregates, design mix and periodic test reports of concrete placed. A minimum of three concrete test cylinders shall be taken from each day's pour over 5 c.y. and tested at an approved laboratory at 7 days and 28 days for compressive strength. The testing laboratory shall furnish the Architect with one certified copy of each test and such additional copies as may be required by the Architect or Contractor.

1-25. Discriminatory Practices

All contractors or sub-contractors working under the terms of this project contract are prohibited from engaging in discriminatory employment practices as forbidden by the Iowa Civil Rights Act of 1965. These provisions shall be fully enforced, as directed by Harold E. Hughes, Governor, State of Iowa, through Executive Order NUMBER NINE, dated October 11, 1967. Any breach of the provisions contained in the Iowa Civil Rights Act of 1965 shall be regarded as a material breach of contract.

PART 2

IN GENERAL

2-1. Location of Project

The State Historical and Library Building is located at East 12th Street and Grand Avenue, Des Moines, Iowa.

2-2. Conditions

The parking area north of the building is used extensively each day by personnel and visitors. Therefore, this parking area must be kept open and protected at all times.

Reckless driving or other misconduct on the part of the Contractor's workmen will not be tolerated and if so deemed by the Superintendent of Buildings and Grounds, he shall have the right, without recourse, to order anyone off the grounds, to so remain.

All rules and instructions from the Superintendent of Buildings and Grounds shall be rigidly enforced by the Contractor and by all workmen. Contractors' employees found unacceptable by the Superintendent of Buildings and Grounds or the Architect shall be permanently removed from the project.

2-3. Construction Area and Limitations

The contractors' storage areas shall be located as mutually agreed between the Superintendent of Buildings and Grounds and the Contractor to maintain safety, proper supervision and controlled access to all working areas. All construction operations shall be kept within the defined areas as agreed upon.

The Contractors' employees shall be required to park personal vehicles in designated areas. Contractors' equipment and vehicles shall be parked in areas specified by the Superintendent of Buildings and Grounds, when not in use.

2-4. Alternate Bids

Additional contractors' bids are requested as alternates to be added or deducted from the base bid. (See the proposal form, applicable specifications and drawings for complete information.) Alternates are generally itemized as follows:

ALTERNATE #1 - FINISH (ANODIZING)

2-5. Shop Drawings, Samples and Specification Data

Articles 5 and 8 of the General Conditions of the Contract shall be supplemented as follows:

- A. Shop drawings and erection drawings shall be submitted for approval as requested by the Architect.
- B. Specification data and supplementary descriptive literature shall be submitted for approval on the following items and others as requested by the Architect:
 - (1) All materials requiring supporting data, performance or test certificates or other characteristics to certify compliance with the specifications.

PART 3

WINDOW REPLACEMENT

STATE HISTORICAL BUILDING AND LIBRARY BUILDING

3-1. General

(a) Scope

Furnish and install all double hung aluminum windows and related aluminum closure extrusions, sizes as shown on the drawings (to be verified at site) and/or called for in these specifications, furnish with all necessary hardware, anchors, glass, screens, caulking, and miscellaneous equipment as herein specified and to complete the installation of all new aluminum windows, all aluminum sash shall be equal to those manufactured by the following manufacturers: Albritton Engineering Corp., Bryan, Texas; Amco Aluminum Corp., Philadelphia, Pennsylvania; Efco Corporation, Monett, Missouri; General Bronze Corp., New York, New York. Sample shall be supplied to Architect for approval prior to bid date.

(b) Reference Standards

The following reference standards shall apply to all aluminum products to be furnished, AAMA 302.6 dated January, 1968. Double hung windows specifications DH-A3.

3-2. Removal and Installation

(a) Removal

Removal of existing sash shall be made in a workmanlike manner, and material removed shall become the property of the Contractor, and removed from the premises, except for art glass panels that will be reglazed into new sash as called for in this specification.

(b) Installation

Installation shall be made in a workmanlike manner by skilled mechanics experienced in installation of this type. It is expected that all installations will be made from the outside in - in order not to disturb the existing interior wood trim, marble and plaster. All windows shall be set straight, plumb, and level in the existing openings and securely anchored as detailed. The latching devices shall bring all surfaces in complete contact with the frame without binding of any part.

(c) Installation Security and Protection

To provide proper security and protection to the building and its contents during the installation of new aluminum windows, no existing sash may be removed unless the complete installation of the new window can be completed the same day. Contractor shall provide necessary equipment to protect the building and its contents from wind, rain, dust, etc., during installation.

- (1) Contractor shall notify Superintendent of Buildings and Grounds and/or the Architect sufficiently in advance before removal of existing sash.
- (2) Existing building contents which may infer with removal of existing sash or installation of new aluminum sash shall be moved by the Owner upon proper notification by Contractor.
- (3) Contractor shall be held responsible for any damage to existing wood trim, marble, and plaster which may occur to surrounding members during installation and Contractor shall replace these damaged areas back to their original concept.

3-3. Materials (New Windows)

- (a) Main frame and sash members shall have a nominal thickness of not less than 0.062" except for fin trim, either integral or applied. Frame sill members shall have a nominal thickness of not less than 0.094". The standard wall thickness tolerances covered by AAMA - 302.6 paragraph A-1-3.5 shall apply.

3-4. Construction

- (a). Double hung aluminum windows shall be constructed as covered by AAMA - 302.6 paragraph A 1-2.2 dated January, 1968.

3-5. Hardware

- (a) The lower sash shall have two grips or bar lifts attached to the lower rail or shall have a continuous lift except that for sash less than 3'-0" wide between stops one grip or bar lift will be required.
- (b) Where meeting rails are over 6 ft. above the floor the upper sash shall be provided with a pull down socket at the inner side of its top rail for pole operation.

- (c) Sash shall operate fully and be equipped with a counter balancing mechanism meeting requirement of AAMA 901.1 "Sash Balance specifications".
- (1) Sash balance of appropriate size and capacity to hold the sash stationary at any open position shall be used for weights of sashes to be counterbalanced.
 - (2) Sash balances shall be installed and securely attached in the plant of the window manufacturer using sash balance recommendations for installation procedures.
 - (3) Sash balances shall be easily accessible when in window and shall be replaceable in the field.
 - (4) Each unit shall be equipped with a positive cam lock and keeper. One lock shall be furnished on all units 3'-0" wide and under, two locks shall be furnished on all units over 3'-0" wide.

3-6. Weather Strip

- (a) Perimeter of all operating sash shall be completely weather-stripped with fin barrier pile and vinyl or equal.

3-7. Glass and Glazing

- (a) Furnish and install all glass required to glaze all windows (except existing art glass) shown on the drawings together with all miscellaneous glass items scheduled herein.
- (b) Each piece of glass shall bear the manufacturers label, indicating its quality. Glass sizes shown by the drawings are approximate only.
- (c) All windows indicated on the drawings as such shall be glazed with clear "B" grade 3/16" glass equal to "Pennvernon" as manufactured by Pittsburg Plate Glass Company. Windows in toilet rooms shall be glazed with obscure "Synite" 3/16" thick as manufactured by the Mississippi Glass Company. Install 3/16" "Misco" "Coalite" in all openings as designed on drawings (all openings on South elevation of building).
- (d) Glass shall be held in place by inside removable stops provided by window manufacturer, all glass shall be set solidly in glazing compound both sides with stops shoved into place. All glazing shall be proved water tight.
- (e) Contractor shall be responsible for all glass breakage until installation is complete and installation is approved and accepted by Owner.

- (f) Aluminum sash designated on the drawings to be "Glazed with existing art glass" shall be installed as follows - existing leaded art glass will be removed from the existing sash and reglazed in the new aluminum sash in the same manner as paragraph 3-7-(d) of these specifications. Art glass panels shall be handled and glazed by a skilled mechanic experienced in installation of this type. Contractor shall be responsible for replacement of any or all panes that may be broken in removing panel or reglazing into new aluminum sash. Inspection of all art glass panels shall be made by Contractor and Architect before removal is commenced to ascertain if broken panes exist.

3-8. Screens

- (a) Provide full screens with standard hardware for all operating windows.
- (b) Screens shall consist of extruded aluminum tubular frame 18 x 16 mesh aluminum screen cloth, with removable splines.

3-9. Finish (BASE BID)

- (a) All frame, sash members, and closure extrusions, screen frames and all related aluminum members to complete installation shall be caustic etched and coated with methacrylate - type lacquer in one continuous operation in the manufacturer's plant.

3-10. Finish (ALTERNATE #1)

- (a) Aluminum surfaces here before designated in base bid 3-9 shall be provided with an anodized coating. The coating color at the selection of the Architect and of the type and composition recommended by the window manufacturer to produce the results specified. The coating shall be applied over a caustic etched finish and be sealed effectively. The coating shall have a minimum film thickness of 0.004 inch and a minimum coating weight of 17 milligrams per square inch with ASTM Standards B-244-56. Protect surfaces from handling marks until sealers and protective coatings are applied.

3-11. Dissimilar Materials

- (a) Dissimilar materials, except stainless steel, white bronze, and solid zinc shall be painted with a heavy brush or spray coat of zinc chromate primer and one coat of aluminum paint, or shall be separated from the aluminum by a heavy coat of mastic caulking compound.

3-12. Caulking and Mastic Compound

(a) Caulking

After installation is completed, caulk the entire perimeter of all openings in which new aluminum windows have been installed and/or detailed on drawings.

All caulking shall be applied in hand guns and smoothed to a neat bead fully enclosing and adhering to the joint. Any over laps, smears, etc., shall be removed.

All caulking shall be an approved type of polysulfide base sealant (Thiokol) in light grey color equal to A. C. Horn "Hornflex", "Thiokol", LP - 32 Sealant, or Sonneborns "Sonolastic Sealant".

(b) Mastic Sealant

All exterior metal to metal joints between members of windows, frames, mullions, and mullion covers and closure extrusions shall be set in mastic sealant of the type recommended by the window manufacture. Remove all excess mastic before it hardens.

3-13. Adjustments after Installation

(a) After windows have been installed all operating sash, hardware shall be adjusted to operate smoothly and to be water tight when closed and locked. Balances shall be adjusted to proper tension and guides waxed or lubricated.

3-14. Clean Up

Upon the completion of installation all debris created by the installation shall be removed from the premises of the Owner and disposed of by the Contractor.



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